Wisconsin Coastal Zone Management Program

Green Bay West Shore Study

SUMMARY REPORT 1980

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BAY-LAKE Regional Planning Commission

serving communities within the counties of:

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GREEN BAY WEST SHORE STUDY

Summary Report

Prepared by:

Bay-Lake Regional Planning Commission

September 1980

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PREFACE

The Bay-Lake Regional Planning Commission wishes to acknowledge the contributions of the local governments, agencies, and individual citizens who participated in conducting the Green Bay West Shore Study. These contributors enhanced the findings of the West Shore Study, and are listed in Appendix I.

The production of this report completes the obligations of the Bay-Lake Regional Planning Commission to the Wisconsin Coastal Management Program, Department of Administration, under contract number 79102-2.3, for performance of the Green Bay West Shore Study, as described herein.

The broad scope of the West Shore Study and the efforts of the many people who were involved in it are not easily reduced to report form. Often as conclusions are drawn regarding specific locations along the West Shore new information is being released, or new developments are taking place. Therefore, the contents of this report represent the synthesis of many sources of input, as of September, 1980. In this context, the Green Bay West Shore Study can serve as a benchmark during the ongoing conflict resolution process described in the text.

Conducting the West Shore Study necessitated the assembly and analysis of many more resource materials and data elements than could be totally represented in this Summary Report. This included the preparation of numerous base maps and informational materials for review by committee participants. The results of this detailed information generated by the Green Bay West Shore Study will be published in a West Shore technical report, as the documentation and analysis of available data is concluded during the second year of the study.

TABLE OF CONTENTS

	PAGE
PREFACE	i
LISTS OF MAPS AND TABLES	iii
STUDY BACKGROUND	
Introduction	1-1
The Study Area	1-3
Goal and Objectives	1-6
ORGANIZATION AND METHODOLOGY	
Study Organization	2-1
Methods of Analysis	2-4
Identification of Problems and Conflicts	2-9
SPECIFIC PROBLEM/CONFLICT AREAS	
Specific Problem/Conflict Areas Background	3-1
Brown County	3-4
Oconto County	3-15
Marinette County	3-22
CONCLUSION	4-1
APPENDICES	
Appendix I - Green Bay West Shore Study Committee Participants	A-1
Appendix II - Correspondence to the Wisconsin Coastal Management Council	A-8
Appendix III - Green Bay West Shore General Issues, Concerns, and Problems	A-10
Appendix IV - Sample Summary: Six Year Highway Improvement Program 1980-1985	A-15
BIBLIOGRAPHY	B-1

LIST OF MAPS

MAP 1 - West Shore Study Area 1-4

MAP 2 - West Shore Wildlife Habitat 2-6

MAP 3 - Green Bay West Shore Problem Assessment Map 3-3

MAP (APPENDIX IV) - Transportation District 3 Six Year Highway Program A-17

LIST OF TABLES

TABLE 1 - Green Bay West Shore Study Area Acreage and Percent Divisions by Governmental Unit. 1-5

TABLE 2 - Green Bay West Shore Study Generalized Committee Characteristics 2-3

TABLE (APPENDIX IV) - Transportation District 3 Six Year Highway Program (West Shore Study Area Only). A-16

STUDY BACKGROUND

INTRODUCTION

The West Shore of Green Bay from the mouth of the Fox River to the Wisconsin-Michigan border is an area which possesses an exceedingly rich heritage. Characterized by a low, level terrain, this 53 mile segment of Wisconsin's coastline contains one of the most valuable remaining fresh-water ecosystems in the Great Lakes region.

Along Wisconsin's 495 mile Lake Michigan shoreline, there are less than 30 linear miles of remaining coastal wetlands, a large percentage of which occur along the West Shore of Green Bay. Although estimates vary, the West Shore area may contain 80 to 90 percent of the existing wetlands on the entire Lake Michigan Shore. This is of special significance because of the somewhat unique character of freshwater coastal wetlands, which contain many of the elements common to inland glacial marshes, yet are subject to the dynamic physical forces of the shoreline regime.

Accompanying the wetlands along the West Shore are some 26 natural areas which have been identified as significant by Wisconsin's Scientific Areas Preservation Council. These natural areas range in size from small islands in Green Bay, to a 10,000 acre forested wetland. They range in significance from natural history areas of local importance, to areas of statewide or greater natural area significance. In addition, much of the land along the West Shore functions as high quality wildlife habitat, with wetlands in particular being of critical importance to many species.

The West Shore also has a rich history. No less than 131 identified archaeological sites pre-date European settlement of the area, and many more probably remain undiscovered. An Archaeological Survey of the Green Bay Coastal Corridor conducted by the Great Lakes Archaeological Research Center, Inc., in 1978-79 included a portion of the West Shore, and discovered 17 new sites in Brown and part of Oconto County alone. Additionally, there are some 143 historic sites or structures in the area.

The abundance of archaeological and historic sites merely reflects the role this area has had over time as a focal point of prehistoric activity, as a part of the lumbering industry which "created boom-towns overnight," as an area of agricultural successes and failures, and more recently as a location for single family homesites due to its aesthetic character. Throughout the West Shore's history, a strong ongoing tradition of hunting and fishing has occurred, which spans all of these settlement periods. The prime hunting and fishing habitat, long recognized locally, has more recently attracted state and federal attention.

In recognizing the uniqueness of this area, the Wisconsin Coastal Management Program funded a project in 1978-79 under which the Department of Natural Resources developed a plan for the acquisition and management of eleven wetland/wildlife units along the West Shore of Green Bay. The State of Wisconsin currently owns over 5,000 acres in this area, and land purchases to implement the acquisition plan have continued. Ultimately, the acreage goal within the eleven units identified is 13,933 acres. While this is a significant amount of land, the valuable wetlands, natural areas, and wildlife habitat are even more extensive.

The state acquisition plan, however, is only one of many plans which have been proposed for the West Shore, and reflects only one of the numerous interests and perspectives which are present. Examples of other interests are agriculture, transportation, energy, harbor development, commercial fishing, marine recreation, the housing industry, economic development, and local concerns. Although the natural limitations of wet soils and periodic flooding place certain constraints on development, the picturesque West Shore continues to be sought for homesites, as evidenced by continued population growth in its rural/suburban areas, with some townships experiencing as much as a 60% increase during the period 1970-1979, according to estimates by the Wisconsin Department of Administration.

Because of the way in which the many interests interact with one another and with the valuable natural resource features, the West Shore is an area of complexity, and sometimes of conflict. A strong local sentiment pervades the area, and many alternative uses often compete for the same land parcels, putting pressure on the limited coastal resources. This situation is not unlike the rest of Wisconsin's coasts; but coupled with the many significant natural areas, unique coastal wetlands, scientific and historic sites, and extensive high quality wildlife habitat, there is added importance that any development proceed with only a minimum of disturbance to the remaining natural resource base if the West Shore's heritage is to be preserved.

While the wetlands and accompanying valuable resource features have been, and will continue to be a primary focus of interest along the West Shore of Green Bay, the perceptions, desires, and plans of those persons living in the area are equally important. This includes local governmental units, groups and organizations, businesses, and service agencies. The interrelationship between these entities and the natural resource base is an important aspect which will untimately work to shape the future of the West Shore.

Understanding and being able to define the various activities which are impacting the West Shore is thus of importance if agreements regarding future land uses are to be addressed, and the protection and appropriate utilization of resource areas achieved. To help accomplish this, the Coastal Management Council and the Wisconsin Coastal Management Program continued its interest in the West Shore in 1979-80 by funding a Green Bay West Shore Study through the Bay-Lake Regional Planning Commission. This study was initiated to establish a process for the identification and resolution of conflicts on the West Shore by taking into account local, state, and regional perspectives. It was additionally designed to collect data and provide a mechanism for public involvement and the coordination of planning activities in the area. Among the primary reasons for the study were the many points of view, plans, and competing interests which needed to be brought together for discussion and analysis. This report summarizes the activities and findings of the 1979-80 Green Bay West Shore Study.

THE STUDY AREA

As previously noted, the West Shore of Green Bay from the mouth of the Fox River to the Wisconsin-Michigan border (mouth of the Menominee River) is a linear corridor extending approximately 53 miles. The existence of numerous shoreline irregularities such as peninsulas and inlets, however, would greatly magnify this distance if included in detail.

The area delineated for inclusion in the Green Bay West Shore Study is shown on Map 1 relative to the Bay-Lake Region and the State of Wisconsin. The boundary was determined by using a combination of the following criteria:

- -Political boundaries of local governmental units contiguous to or near the waters of Green Bay.
- -A relatively equal distance inland from the Green Bay shoreline.
- -The availability and distribution of data coterminous with the political units.
- -The inland extension of major resource features having a link to Green Bay.

Table 1 lists the governmental units which were included within the West Shore Study, indicating their respective sizes and relationships to the study area. These data correspond to the boundary delineation shown on Map 1.

The study area was designed to facilitate a comprehensive examination of the West Shore which would include issues such as transportation, energy, economic development, and local concerns, in addition to the wildlife and recreation values commonly associated with the area. It is hoped that this sub-regional approach which transcends county lines to incorporate local areas possessing similar limitations, potentials, and experiences can be used as a model which will be applicable to other situations and other geographical locations in the future.

It should be noted that, in a general sense, the similarities within the West Shore Study area and the complexity of problems and concerns grow progressively more pronounced as one approaches the Green Bay shoreline.

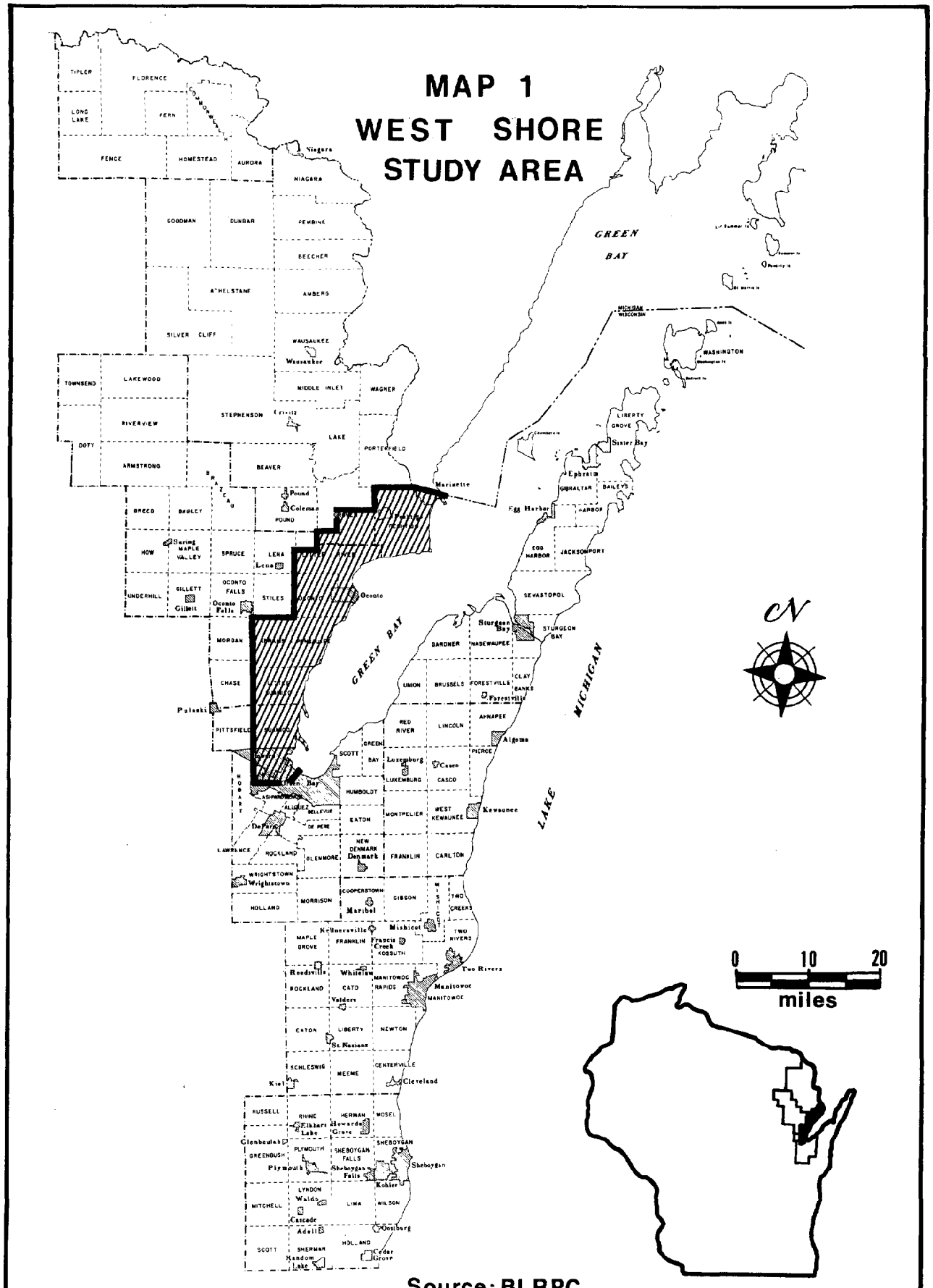
MAP 1
WEST SHORE
STUDY AREA
GREEN BAY
MICHIGAN
LAKE
N
0 10 20
miles
Source: BLRPC

TABLE 1
GREEN BAY WEST SHORE STUDY AREA
ACREAGE AND PERCENT DIVISIONS
BY GOVERNMENTAL UNIT

Governmental Unit	Total Area (acres)	Portion of Governmental Unit Within West Shore Study Area (acres)	Percent of Governmental Unit Within West Shore Study Area	Percent of West Shore Study Area Contained Within Governmental Unit
Brown County	341683.89	36448.82	10.7	16.0
City of Green Bay	28619.50	3061.66	10.7	1.3
Village of Howard	11430.02	9329.93	81.6	4.1
Town of Hobart	21908.62	878.15	4.0	0.4
Town of Suamico	23179.08	23179.08	100.0	10.2
Oneida Indian Reservation*	65400*	1651*	2.5	0.7*
Oconto County	653446.59	126257.18	19.3	55.4
City of Oconto	4154.68	4154.68	100.0	1.8
Town of Abrams	24135.87	24135.87	100.0	10.6
Town of Little River	33208.74	27654.11	83.3	12.1
Town of Little Suamico	23900.62	23900.62	100.0	10.5
Town of Oconto	23606.41	23606.41	100.0	10.4
Town of Pensaukee	22805.49	22805.49	100.0	10.0
Marinette County	914190.99	65118.14	7.1	28.6
City of Marinette	4146.53	4146.53	100.0	1.8
City of Peshtigo	1582.53	1582.66	100.0	0.7
Town of Grover	47106.16	19775.91	42.0	8.7
Town of Peshtigo	39613.04	39613.04	100.0	17.4
Total Acreage-Green Bay West Shore Study Area		227824.14 (355.98 square miles)		

*Figures for the Oneida Indian Reservation are approximations based on the best information available. These acreages overlap with portions of the Town of Hobart and the City of Green Bay; therefore they have already been included in calculations, and the data are not re-counted.

GOAL AND OBJECTIVES

In 1978, the Wisconsin Coastal Management Program was approved by the Secretary of Commerce, making the state eligible for annual grants pursuant to Section 306 of the Coastal Zone Management Act of 1972, as amended (P.L. 94-370). The goal set forth for the Wisconsin Coastal Management Program was:

> To preserve, protect, develop and where possible, to restore or enhance, the resources of Wisconsin's coastal area for this and succeeding generations, with governmental coordination and public involvement, giving due consideration to the linkages and impacts to resources of inland areas.

The Coastal Management Goal is a statement of the overall purpose of the program, and expresses the beliefs that: (1) a balance must be achieved between conservation and development in Wisconsin's coastal areas; (2) this balance must consider coastal areas and inland areas as well, when those areas affect or are affected by the coasts; and (3) government and citizens must work together if such a balance is to be successfully achieved.

The major objectives stated for the coastal program are as follows:

> To improve the implementation and enforcement of existing state regulatory and management policies and programs affecting key coastal uses and areas;
>
> To improve the coordination of existing policies and activities of governmental units and planning agencies on matters affecting key coastal uses and areas;
>
> To strengthen local governmental capabilities to initiate and continue effective coastal management consistent with identified state standards and criteria;
>
> To provide a strong voice to advocate the wise and balanced use of the coastal environment and the recognition in federal, state, and local policies of the uniqueness of the coastal environment;
>
> To increase public awareness and opportunity for citizens to participate in decisions affecting the Great Lakes resources.

The Green Bay West Shore Study is closely aligned with these general program objectives, as a project funded by the Wisconsin Coastal Management Program under "Section 306" funds during 1979-80. Specifically, however, the objectives dealing with coordination and public awareness/citizen participation relate most closely to the West Shore Study, although all five apply.

The following were established as major objectives for the West Shore Study:

1. To establish a coordination and conflict resolution process for the Green Bay West Shore which takes into account local, state, and regional perspectives.

2. To provide opportunities for public involvement.

In pursuing the objectives for the West Shore Study, these expected end products were identified:

1. Coordination of planning activities in the Green Bay West Shore area.

2. Increased public awareness of coastal resources.

3. Conflict identification and resolution.

4. A final report summarizing the process and identifying areas of agreement and remaining conflict, if any.

The study is expected to improve the management of Wisconsin's coastal areas by assisting local and state decision-makers in making choices among conflicting uses, and by providing a comprehensive perspective to the management of the Green Bay West Shore. A resolution (Appendix II) was signed by the Brown, Oconto, and Marinette County Board Chairman stating that the Bay-Lake Regional Planning Commission was the proper agency to coordinate the "Green Bay West Shore Study."

ORGANIZATION AND METHODOLOGY

STUDY ORGANIZATION

The West Shore Study was structured to include input from three levels: local elected officials, technical personnel, and interested citizens. This involved the utilization of several advisory committees (see Appendix I).

There are 18 local units of government within the West Shore Study area, including Brown, Oconto, and Marinette Counties, and the minor civil divisions within them which are nearest the West Shore of Green Bay. Also included within this number is a small portion of the Oneida Indian Reservation in Brown County. In order to encourage interest and participation in the study, Bay-Lake staff attended local town and village meetings, and met with the mayors of the four cities within the study area.

The result of these meetings was the organization of a Green Bay West Shore Committee composed of local elected officials or their appointees. This committee helped identify local needs and concerns, provided an avenue for local governments to work with representatives of state and federal agencies, and reviewed information related to the West Shore.

The West Shore Technical Advisory Committee was formed shortly after the Green Bay West Shore Committee, and consisted of technical personnel from local, state, regional, and federal agencies. A list of potential participants was developed by including all agencies or departments identified as having a role along the West Shore, and consulting with committee members for possible additions. Both development and resource oriented organizations were invited to participate, encouraging a balance of interests. This committee reviewed the maps and materials prepared by Bay-Lake staff for use in the West Shore Study, to insure both the technical accuracy of the information, and that professional concerns related to the study received proper consideration.

The Bay-Lake Citizens' Task Force on Coastal Management was utilized as a source of citizen input to the study. The Task Force is a standing committee composed of primarily citizen representatives from the seven coastal counties within the Bay-Lake Region. Proceeding from south to north these are: Sheboygan, Manitowoc, Kewaunee, Door, Brown, Oconto, and Marinette. In addition, individuals identified by Task Force members as having particularly strong interests in the West Shore were invited to participate; and the Task Force forum was an effective way of insuring that citizen concerns related to the study were addressed.

Staff from the Bay-Lake Regional Planning Commission acted as facilitators for each of these committees by providing information and coordinating discussions. Individuals in the respective groups, as implementors of state and local plans or interested citizens, could thus work together to identify issues, concerns, and problems, and begin addressing conflicts within their jurisdictions. The process focused on utilizing available resource materials, and integrating existing inventories and plans. The intent was not to duplicate existing efforts but to identify gaps and to establish a process for resolving conflicts.

The Green Bay West Shore Committee, West Shore Technical Advisory Committee (TAC), and the Bay-Lake Citizens' Task Force on Coastal Management met monthly over the period December, 1979, to March, 1980, to obtain a general overview of the study, identify West Shore issues and concerns, and review the West Shore's natural resource base, land use, and zoning. The West Shore TAC met for the first time in January, 1980.

Beginning in April, and continuing through June, 1980, members these three committees, as well as other interested citizens, had an opportunity to meet together in county subcommittees to address issues and concerns at a more specific local level, and to exchange points of view. The subcommittees for Brown, Oconto, and Marinette Counties each met twice and reviewed summaries of plans and studies affecting their respective localities within the West Shore Study area. Local problem/conflict areas were examined, and suggestions for possible resolutions to these were made in some instances.

A final meeting was conducted in July, 1980, providing an opportunity for previous study participants to meet jointly in a single group. At this meeting, the group reviewed the specific problem/conflict areas which had been examined during the course of the study. The identification and prioritization of West Shore issues, concerns, or problem areas also took place during this final session under the 1979-80 project grant year (see Appendix III).

Additional sources of input to the study came from a less structured network of staff contacts with area officials, technical personnel, and interested citizens; and from the comparative review of plans, studies, ordinances, and other data applicable to the area. West Shore Study participants were requested to inform Bay-Lake staff of any available information, identify additional contacts, or make comments which could be of benefit to the study. Small group meetings were utilized in some instances to clarify perceptions or obtain information.

A "non-traditional" aspect of the Green Bay West Shore Study was its open-ended approach. Rather than utilizing public review and comment at the end of the study for reactions to staff-level conclusions in report form, the West Shore Study sought a broad based and widely diversified spectrum of input from its inception. The discussions contained herein reflect that participation.

Table 2 describes more fully the characteristics of the committees participating in the Green Bay West Shore Study.

TABLE 2
GREEN BAY WEST SHORE STUDY
GENERALIZED COMMITTEE CHARACTERISTICS

WEST SHORE TECHNICAL ADVISORY COMMITTEE	GREEN BAY WEST SHORE COMMITTEE	BAY-LAKE CITIZENS' TASK FORCE ON COASTAL MANAGEMENT
-Composed of professionals from local, state, regional, and federal interests on the West Shore.	-Composed of local elected officials or their appointees from the minor political units within the study area, and representatives from the major management agencies.	-Composed of citizens from the Bay-Lake Region interested in and knowledgeable about coastal issues.
-Insures that technical and professional concerns along the West Shore receive proper attention in the study.	-Provides direction to the study based on local desires and needs.	-Provides a broad-based citizen perspective to the study from representatives of coastal counties.
-Provides technical and professional guidance to Bay-Lake staff and other study participants.	-Provides an opportunity for local officials to establish connections and working relationships with agencies and each other.	-Provides an opportunity for regular status updates on the study to area citizens.
-Reviews and provides technical and professional input on maps and materials.	-Reviews maps and other materials for local areas to see how they interrelate.	-Reviews maps and provides input and comments on specific West Shore issues.

WEST SHORE SUBCOMMITTEES-
BROWN, OCONTO, AND MARINETTE COUNTIES

-Composed of members from three groups listed above and other interested citizens by respective county.

-Provide study participants with an opportunity to address West Shore issues at a more specific and local level.

-Allow the technical expert, elected official, and citizen points of view to exchange first hand.

-Review summaries of plans/studies to determine areas of agreement or conflict. Suggest resolutions for problems/conflicts.

METHODS OF ANALYSIS

In order to conduct a comprehensive examination of the Green Bay West Shore, numerous data elements and resource materials were incorporated into the West Shore Study for analysis. In broad categorical terms, three major components were considered:

-Physical and Biological Characteristics of the Green Bay West Shore.

-Cultural Factors and Human Influences within the West Shore Study Area.

-Existing Plans, Studies, and other Documents impacting upon the West Shore.

Bay-Lake staff were largely responsible for assembling the data and other materials, which were used by participants in the study. The data were subjected to technical review in order to determine applicability to the study area, and associated implications.

Physical and Biological Characteristics

The physical and biological characteristics of the Green Bay West Shore are a primary reason for the area's unique attributes and development limitations. The following subject areas were discussed during West Shore Study meetings, and 1:24000 scale (1"=2000') color-coded base maps were prepared by Bay-Lake staff for display and comparison:

-Bedrock Geology

-Pleistocene (Glacial) Geology

-Soil Limitations for Septic Absorption Fields

-Potential Prime Agricultural Soils

-Surface Water Features

-Wetlands*

-Fish Habitat

-Wildlife Habitat

-Significant Natural Areas

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*A comprehensive, updated map of West Shore wetlands was recently completed by the U.S. Fish & Wildlife Service - Green Bay Field Office, in cooperation with the Bay-Lake Regional Planning Commission.

Map 2 delineates the West Shore Wildlife Habitat, providing one picture of the resource values existing in this area. This map most completely characterizes the resource values of the West Shore, because the quality of wildlife habitat is a function of many other variables, including geology, soils, vegetation, water resources, significant natural areas, and land use practices.

Participants in the various West Shore Committees had an opportunity to review the large scale, color-coded map of West Shore Wildlife Habitat in relation to maps depicting other features. Bay-Lake staff, in turn, used the collective series of maps listed herein to structure discussions and assist in identifying areas of agreement or conflict. "Climate" was an additional subject area discussed during West Shore study meetings, but not included in the map series.

Cultural Factors and Human Influences

The interactions between people and the natural resource base are responsible for the Green Bay West Shore as it appears today. Management decisions by entities such as state agencies, local governments and individual citizens will further act to alter the landscape in the future.

The following subject areas were discussed during West Shore Study meetings, and 1:24000 scale (1"=2000') color-coded base maps were prepared for display and comparison:

-Archaeological and Historic Sites

-Land Ownership

-Land Use

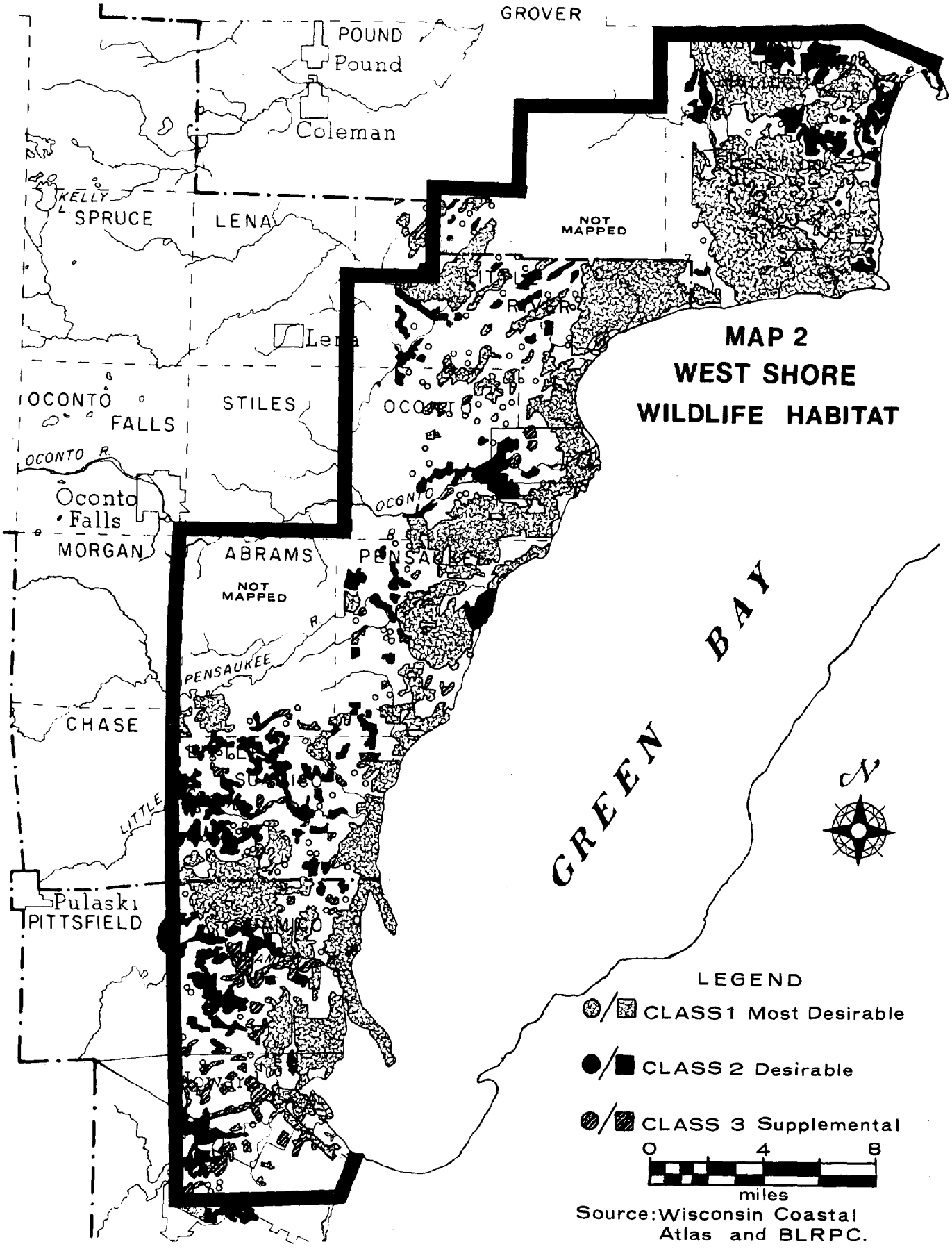
-Zoning

"Population" was an additional subject area discussed during the West Shore Study meetings, but not included in the map series.

Plans, Studies, and Other Documents

In order to more clearly understand the multiplicity of activities and entities interacting along the West Shore of Green Bay, a comparative analysis of existing plans, studies and other pertinent documents was undertaken. This consisted of two phases: 1) staff-level analysis of these documents by the Bay-Lake Regional Planning Commission to determine applicability to the West Shore Study area, and assist in identifying areas of agreement and conflict; and 2) summarization of the documents for the review and benefit of participants in West Shore Study committees, as comparisons were drawn, and issues, concerns, or problem areas were identified.

The following plans/studies were summarized by Bay-Lake staff as they apply to the West Shore Study area, and distributed to the West Shore meeting participants:


GROVER
POUND
Pound
Coleman
KELLY
SPRUCE
LENA
NOT MAPPED
Lena
OCONTO
FALLS
STILES
OCONTO R.
Oconto Falls
MORGAN
ABRAMS
NOT MAPPED
PENSAUKEE R.
CHASE
LITTLE
Pulaski
PITTSFIELD
GREEN BAY
N
MAP 2
WEST SHORE
WILDLIFE HABITAT
LEGEND
CLASS 1 Most Desirable
CLASS 2 Desirable
CLASS 3 Supplemental
0 4 8
miles
Source: Wisconsin Coastal Atlas and BLRPC.

Areawide

-Archaeological Survey of the Green Bay Coastal Corridor.

-Green Bay West Shores Master Plan Concept Element.

-Natural Area Inventory Wisconsin Great Lakes Coast.

-Six Year Highway Improvement Program 1980-1985.

-The Upper Green Bay Basin Water Quality Management Plan.

-Wisconsin's Program for Preservation of Natural Areas and Other Minimum Management Lands.

Brown County

-Brown County Comprehensive Plan Continuing Planning Program.

-A Comprehensive Plan for the Town of Hobart, Wisconsin.

-A Comprehensive Plan for the Village of Howard, Wisconsin.

-Environmentally Significant Areas in Brown County, Wisconsin.

-Green Bay Wisconsin Comprehensive Plan.

-Oneida Nation Comprehensive Outdoor Recreation Plan.

-Open Space and Outdoor Recreation Plan.

-Port of Green Bay Marine-Related Land Use Study.

-Town of Suamico Comprehensive Plan.

Oconto County

-Facilities Plan for Little Suamico Sanitary District No. 1 Wastewater Collection and Treatment System.

-Facilities Plan for the City of Oconto.

-Oconto County Outdoor Recreation Plan (not distributed).

-Oconto Harbor Study

-An Outdoor Recreation Plan for the City of Oconto, Wisconsin (oral presentation by park board representatives).

-Resource Conservation Program Oconto County Soil and Water Conservation District.

Marinette County

-Highway 41 Marinette-Peshtigo.

-Marinette County Outdoor Recreation Plan.

-A Report Upon the Comprehensive Plan Marinette, Wisconsin

-Resources Conservation Program Marinette County Soil and Water Conservation District.

-Snowmobile Facility Plan Marinette County.

Appendix IV provides an example of the plan summaries distributed to committee participants; and the Bibliography of this report lists more completely the reference sources consulted during the Green Bay West Shore Study.

IDENTIFICATION OF PROBLEMS AND CONFLICTS

In order to fulfill the major objective in the West Shore Study of "establishing a coordination and conflict resolution process," the Study Organization and Methods of Analysis were applied in an effort to identify both the general issues, concerns, and problems existing along the West Shore, and the specific geographic areas where problems or conflicts have become manifest. This phase of the study was vital for a more complete understanding of the inter-relationships taking place within the study area, and the ability to adequately determine where future efforts should be concentrated along the West Shore.

Specifically, there were three main avenues by which West Shore problems and conflicts were identified:

- -They were identified by West Shore Study participants from the respective localities in which the problems were seen to exist.
- -They were identified by Bay-Lake staff or West Shore Study participants through the review and comparison of plans, studies, and other documents pertinent to the area.
- -They were identified by Bay-Lake staff or West Shore Study participants, principally those with local technical involvement, through review and comparison of data and base maps and/or specific knowledge about the area.

While addressing problems and conflicts forms the crux of the Green Bay West Shore Study, this focus must be kept in perspective. In a general sense, it is often easier to draw attention to things which evoke disagreement or controversy, rather than things which promote agreement or accord. In addition, problems and conflicts typically appear to be both procedurally and geographically more "point-specific" than areas of agreement. Because of this, the former are easier to identify than the latter.

Nevertheless, it is important to understand that the West Shore of Green Bay contains areas of agreement, as well as areas of conflict. In fact, the geographic distribution of areas of agreement is very likely more generalized and widespread than that of problems or conflicts.

These considerations would make a comprehensive, detailed identification and analysis of "agreement areas" difficult and time-consuming to undertake. Furthermore, the fact that agreements exist in certain areas tends to negate the need for further investigation at these locations, because the presense of agreements connotes a desirable status quo.

In this report, therefore, the discussion of "areas of agreement" along the West Shore occurs only in general terms as they may relate to problems or conflicts. The detailed examination of specific areas of agreement will assume greater significance because of their potential transferability, as resolutions to various problems and conflicts are further pursued. Presently, it is important to remember that the problems and conflicts discussed throughout the West Shore Study exist simultaneously and in juxtaposition with agreement and accord.

SPECIFIC PROBLEM/CONFLICT AREAS

SPECIFIC PROBLEM/CONFLICT AREAS BACKGROUND

The specific problem/conflict areas discussed in this report are generally distributed throughout the West Shore Study area (see Map 3). Some locations along the West Shore have concentrations of problem/conflict areas indicated; and the number of specific areas shown on Map 3 is a delineation of those identified during the study.

The relative concentrations of specific problem/conflict areas within close proximity of the shoreline serves to underscore the fact that these are the locations where competing interests and use-proposals are most intense. Additionally, the inland extension of specific problem/conflict areas tends to be associated most often with rivers or other surface-water features. This is not unexpected, as the convergence of land and water resources has historically created focal points for both biological productivity and human settlement.

Some locations within the West Shore Study area have experienced greater numbers of proposals for change than other locations. Because of this, a number of problems and conflicts from these locations have been identified by previous studies. Where proposals for change are present, an apparent "concentration" of problems and conflicts may thus reflect the level of concern for the proposals which the locality has been involved in prior to the Green Bay West Shore Study. A more limited number of identified problem/conflict areas in other locations may then conversely be attributable to less numerous proposals involving the respective localities.

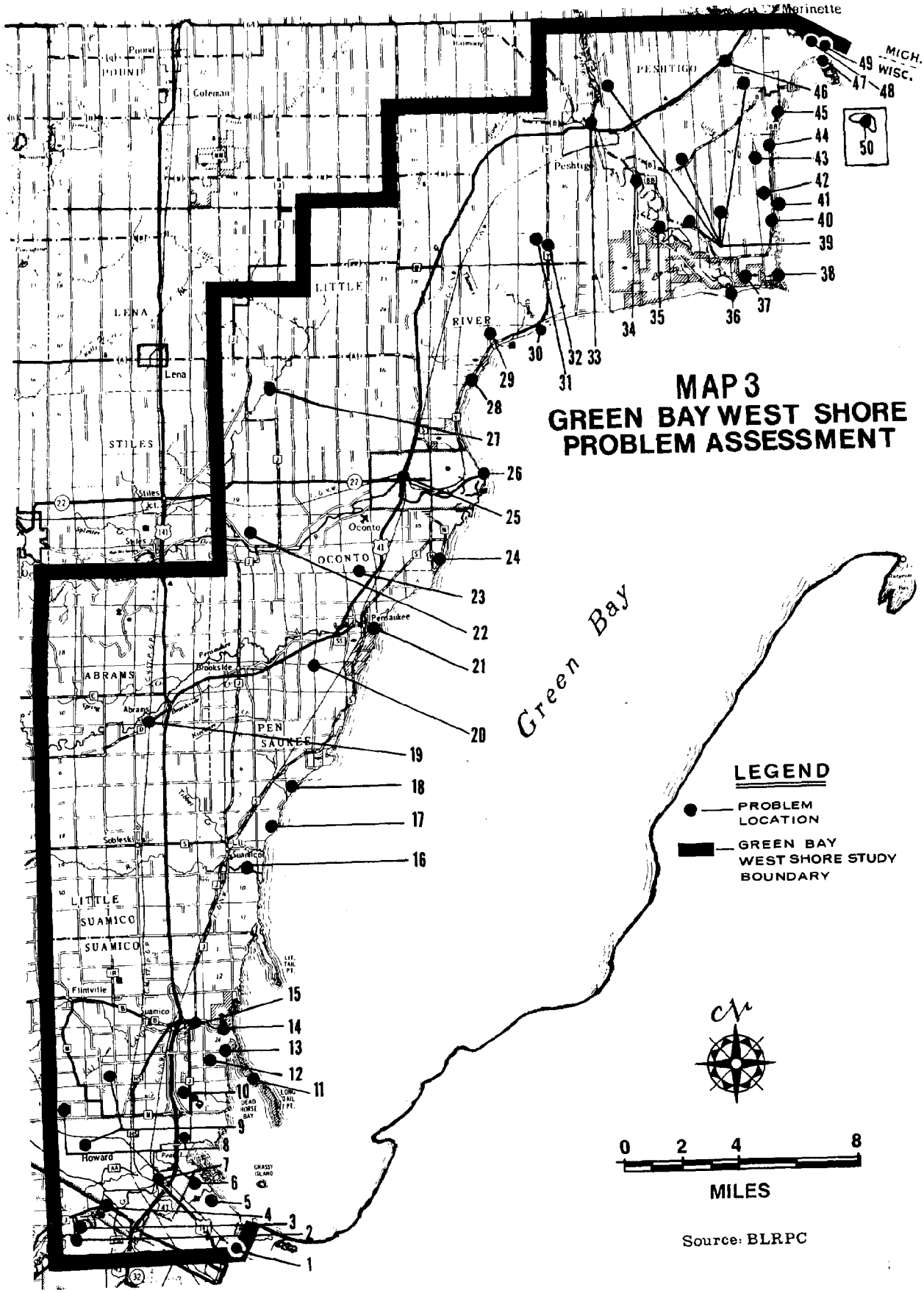
When a number of proposals and special interest plans have been prepared for a given location, this also may increase the possibility that the documents are in "conflict" with one another as interest areas overlap. At the same time, in a positive vein, these circumstances can provide a greater "unity of effort" toward achieving objectives brought forth by the proposals upon which interest groups of similar and divergent backgrounds agree.

The areas delineated on Map 3 do not necessarily indicate the most serious or pressing problems along the West Shore, simply by virtue of their being identified. Nor should their identification imply that the problems and conflicts are of equal consequence. A review of the narrative which follows reveals that some of the problems/conflicts identified have greater potential ramifications than others. No attempt is made, however, to discuss the relative severity of the problems/conflicts, or the urgency with which they should be addressed. This aspect will be considered as the Green Bay West Shore Study further pursues the conflict resolution effort.

What the inclusion of these specific problem/conflict areas indicates, therefore, is a combination of the most visible and apparent concerns identified via committee participants, the review of plans and studies, and the data analysis employed during the Green Bay West Shore Study. Due to the variety of inputs, most of the major problem/conflict areas along the West Shore have conceivably been identified by the study during the

first year. As the study enters its second year and efforts along the West Shore continue, new problems and conflicts will undoubtedly be identified, and old ones will be resolved. It is anticipated, however, that this study will yield a more complete understanding of the Green Bay West Shore, and provide a more judicious and expeditious pursuit of conflict resolution within the study area.

The descriptive list of specific problem/conflict areas identified in the Green Bay West Shore Study have been given numbers in the narrative text to refer to the point locations shown on Map 3. Some of the problem/conflict areas are followed by brief suggestions for their "possible resolution." These suggestions originated from two sources: 1) West Shore Study participants in committee meetings; and 2) recommendations found in plans, studies, or other documents pertinent to the Green Bay West Shore. During the second year of the West Shore Study, efforts will continue toward further identification of possible resolutions to problems and conflicts, with an emphasis being placed on the implementation of workable solutions.


MAP 3
GREEN BAY WEST SHORE
PROBLEM ASSESSMENT
LEGEND
PROBLEM LOCATION
GREEN BAY WEST SHORE STUDY BOUNDARY
Green Bay
MICH.
WISC.
Marinette
PESHTIGO
Peshtigo
POUND
Coleman
LENA
Lena
LITTLE
RIVER
STILES
Stiles
Oconto
OCONTO
Pensaukee
ABRAMS
Brookside
Abrams
PEN
SAUKEE
Sobleski
Suamico
LITTLE
SUAMICO
SUAMICO
Flintville
Howard
0 2 4 8
MILES
Source: BLRPC

BROWN COUNTY

GREEN BAY WEST SHORE STUDY
SPECIFIC PROBLEM/CONFLICT AREAS*

BROWN COUNTY

1. Fox River

Problem/ Conflict

The Green Bay Watershed Past/Present/Future, Fox Valley Water Quality Planning Agency (FVWQPA) reports, and numerous other sources identify the Fox River as the major determinant of water quality in Lower Green Bay. There is no doubt that the nutrient loadings, chemical contaminants, and biological/ chemical oxygen demands discharging from the mouth of the Fox River exert a marked effect on the overall condition and "health" of the Green Bay ecosystem. Therefore, water quality problems of both point and non-point-source origin from the Fox River manifest themselves, in part, within the West Shore Study area. This is true despite the fact that only a small portion of the river is included within the study area, and the prevailing counterclockwise currents within the Bay, which cause the inflow from the Fox River to generally veer to the east and travel up the Door County peninsula while diffusing within the larger water mass.

Although significant strides have already been made in reducing the biological/chemical oxygen demand from point source pollutants, and a renewed fishery in the Fox River has produced promising results, non-point-source pollution control measures have yet to be implemented on a large and systematic scale. At present this entails voluntary cooperative efforts on the part of individual municipalities and landowners. Furthermore, compliance standards have yet to be agreed upon for all point-source pollutors, and clean-up of the problem is not complete.

Possible Resolution

The Water Quality Management Plan Fox River Valley Wisconsin (By FVWQPA) contains a series of recommendations for continued clean-up of the Fox River. Detailed planning for the Lower Fox River by the FVWQPA during 1980, and the pending formation of a River Basin Authority to monitor physical conditions and establish daily discharge limits are further steps being taken to aid the clean-up effort.

2. Oneida Tribal Land Along Duck Creek

Problem/ Conflict

This parcel of land is included on the "Problem Assessment" map in the Green Bay Wisconsin Comprehensive Plan. The "Comprehensive Plan" map for this city neighborhood (NI) shows low-density residential development on the parcel.

*Numerical listing does not denote priority.

At the present time, according to the Oneida Tribe, the land will remain in its natural state. However, the Oneida Tribe's Overall Economic Development Plan 1979-81 includes a second year program priority to do feasibility work on the provision of rental housing on this property, which totals about 60 acres. The development of townhouses and/or apartments is considered as a possible project for the site.

While the Oneida Tribe does not have any formally adopted plans for this land at the present time, the geographically key location with respect to existing neighborhood development has resulted in past disagreements; and the potential exists for either future problems or agreements depending on how objectives and coordination of development are worked out.

Possible Resolution: The Green Bay Wisconsin Comprehensive Plan cites coordination of development between the Oneida property and surrounding properties as being important.

3. Duck Creek Woods

Problem/ Conflict: The Green Bay Wisconsin Comprehensive Plan recommends low density residential development in part of this wooded area near Duck Creek. Environmentally Significant Areas in Brown County, Wisconsin does not show much of this area to be environmentally significant; while the Natural Area Inventory Wisconsin Great Lakes Coast has identified the parcel as a natural area of county or multi-county significance (NA-2). The Brown County Open Space and Outdoor Recreation Plan, A Comprehensive Plan for the Town of Hobart, and the Oneida Reservation Comprehensive Outdoor Recreation Plan all show the area as either an already existing recreational facility, or as part of a proposed greenbelt contributing to a parkway along Duck Creek (The Town of Hobart portion has recently been annexed by the City of Green Bay). In addition, the Oneida Golf & Riding Club (the present owner) has stated no intent to develop the parcel at this time, but rather has shown an interest in preserving the area in its present state.

The City of Green Bay has indicated an interest in preserving as much as possible in the area, but notes that there are limitations on how much land can be purchased by the city parkway. The city believes there is development potential in this property; and the way it has been mapped for subdivision would include stringent controls, according to city planning commission staff.

Development, however, would preclude activities such as cross-country skiing, horseback riding, birdwatching, etc., which occur on the property, and are dependent on the continued natural/open space status.

Possible Resolution: The Green Bay West Shore Study's Brown County Subcommittee suggested that the appropriate parties meeting together should deal directly with this issue, reviewing alternative means of preservation.

4. Duck Creek Parkway - Town of Hobart and Village of Howard

Problem/ Conflict: A Comprehensive Plan for the Town of Hobart and A Comprehensive Plan for the Village of Howard, Wisconsin both include objectives for a parkway-corridor along Duck Creek, as do numerous other sources. However, neither governmental unit has implemented this objective by zoning the area conservancy (for example), or by initiating an acquisition project or other protective measures.

The Brown County Shoreland-Floodplain Protection Ordinance provides a minimal degree of protection for this parkway. The 75-foot residential setback in the ordinance and permitted alterations closer to the creek, however, cannot accomplish the extent of protection which the plan maps show. In addition, variances and special exception permits may further weaken the degree of protection afforded to this stream corridor.

The City of Green Bay appears to be the only local governmental unit that has planned for the Duck Creek Parkway, and then taken steps to implement that plan. It has been active in negotiating purchases to accomplish this. However, it is noted that the objectives for this area shown in the Brown County Regional Planning Program (1968) have been changed to include fewer parks, recreation, and other semi-public lands.

Possible Resolution: The Green Bay West Shore Study's Brown County Subcommittee recommended, by consensus, that the local governmental units meet to address the protection of the Duck Creek Parkway.

5. Project Bay Port Area

Project Bay Port refers to the portion of the City of Green Bay along the West Bayshore between the mouth of the Fox River and the Duck Creek delta. The area was formerly a 600+ acre expanse wetland, called Atkinson's Marsh. In order to achieve the industrial and port-related objectives of Project Bay Port, the marsh was filled. Today only remnants of this natural area remain. It is regarding these natural remnants and proposals for future environmental alterations to complete the project that problem areas and conflicts have been identified.

a. NA-1 Designation

Problem/ Conflict: The Natural Area Inventory Wisconsin Great Lakes Coast identifies 200 acres within the Bay-Port Industrial Tract as a natural area of statewide or greater natural area significance (NA-1), because of rare species habitat. Cited are the nesting sites for Forster's Terns (Wisconsin endangered

species) and other endangered animal species. Environmentally Significant Areas in Brown County, Wisconsin shows that much of the Project Bay Port area is environmentally significant, primarily because of wetness.

The Green Bay Wisconsin Comprehensive Plan, Port of Green Bay Marine-Related Land Use Study, and a number of other documents show planned industrial development and further alterations to sites indicated in the Natural Area Inventory and the Environmentally Significant Areas Document.

b. "Tank Farm" Nesting Area

Problem/ Conflict

This area has a history of providing nesting habitat for the endangered Forster's Tern. The Green Bay Wisconsin Comprehensive Plan recommends retention of this wetland/wildlife preserve. This is in general agreement with the NA-1 designation from the Natural Area Inventory; however, development plans also call for the extension of a railroad spur north through the area to serve new industrial development. This will require state and federal permits; and the U.S. Fish & Wildlife Service's Green Bay Field Office has indicated an unwillingness to recommend this construction to the U.S. Army Corps of Engineers, who would issue the federal permit.

c. Wetlands Between Railroad Tracks and Tower Drive-Green Bay and Howard

Problem/ Conflict

The Green Bay Wisconsin Comprehensive Plan recommends the development of a railroad classification yard between I-43/ Tower Drive and the present rail line. A Comprehensive Plan for the Village of Howard, Wisconsin recommends industrial/ warehouse development where this area extends into the village. The U.S. Fish & Wildlife Service's Green Bay Field Office has notified the Village of Howard of their determination that the proposed industrial/warehouse area is a valuable wetland complex containing significant fish and wildlife habitat, which falls under U.S. Army Corps of Engineers 404 permit jurisdiction. The Fish & Wildlife Service has indicated that the required permits would be difficult to obtain. The Green Bay portion of this area is wetter in character than the Howard portion, and is part of the NA-1 area designation for the Bay Port Industrial Tract.

d. WPS "Dike"

Problem/ Conflict

The U.S. Fish & Wildlife Service has identified an area northwest of the Pulliam Power Plant in which a dike was constructed offshore without securing the proper combined federal permit pursuant to Section 10 of the River and Harbor Act of 1899, and Section 404 of the Federal Water Pollution Control Act of 1972, as amended.

e. Proposed Turning Basin

Problem/ Conflict — The Port of Green Bay Marine-Related Land Use Study recommends extension of an L-shaped peninsula into Green Bay on the east side of Bay Port which would shelter a proposed turning basin. Objections were expressed to this type of harbor development by participants in the West Shore Study, with the Brown County Conservation Alliance taking a formal stand against it. State and federal permits would be needed for the construction and dredging; and the Wisconsin DNR is on record in opposition to any further extension of the bulkhead line in the Bay Port industrial area. Representatives from the U.S. Fish & Wildlife Service's Green Bay Field Office have indicated their preliminary opinion is that the overall negative effects of the project appear to outweigh the benefits.

Possible Resolution (a-e) — The West Shore Study's Brown County Subcommittee recommended that Project Bay Port needs further discussion in a separate meeting(s) of the parties who disagree with one another.

6. Old Landfill Site

Problem/ Conflict — The Green Bay Wisconsin Comprehensive Plan recommends converting the former West Shore landfill site from the old incinerator north to the Bay into a community park consisting of a shoreline open space/recreation area. In pursuing this objective, the city recently applied for a Wisconsin Coastal Management Program Grant to construct a nature trail and various related facilities at the site. Negative comments were received during the A-95 review process, however, because of the access it would give people to sensitive wildlife nesting and feeding areas. Part of the diked landfill site was never filled; and it thus acts as a "controlled" impoundment which can provide crucial nesting/feeding habitat when adjacent cattail stands are obliterated due to high water levels. The "degree of access" issue remains unresolved.

7. Quarry in the Village of Howard

Problem/ Conflict — The large dolomite quarry north of CTH "AA" and west of CTH "J" in the Village of Howard has been identified as a potential problem area, because an acceptable use for it after abandonment has not yet been discovered. It was reported during a meeting of the West Shore Study's Brown County Subcommittee that a proposal to fill it with fly ash had previously been rejected by the DNR, because of potential groundwater contamination.

The Land Use Plan in A Comprehensive Plan for the Village of Howard, Wisconsin indicates future "parks and open space" for the quarry site. However, no means for achieving this are discussed. The great size and depth of this quarry, and its location in the village contribute to this presently unresolved problem.

8. Water Quality Planning Areas

Problem/ Conflict

When state water quality planning was realigned into basins to facilitate the achievement of "fishable, swimmable" water under the guidelines of the 1972 Clean Water Act, the Duck Creek Watershed was not included in the planning area under the Upper Green Bay Basin Water Quality Management Plan (1980). It was previously included in the Water Quality Management Basin Plan for the Rivers of the West Shore of Green Bay (1975).

Official "208" planning for the Duck Creek Watershed is under the jurisdiction of the Fox Valley Water Quality Planning Agency (FVWQPA). Unfortunately, in the sub-watershed delineation by this agency, the northern boundary for the Duck Creek Watershed was arbitrarily drawn at the T24N-R25N dividing line, instead of at the actual extent of the drainage area. Therefore, a small portion of the watershed in the Brown County Towns of Suamico and Pittsfield (approximately 3.3 square miles) has been effectively excluded from recent water quality planning. At the same time, an area of direct drainage to Green Bay (approximately 2.7 square miles) has been incorrectly included in the Duck Creek watershed. Both of these inconsistencies will have an effect, however small, on the projections of discharge, nutrient loading, etc., because of differing conditions within the respective areas. Consequently, characterization of the watershed and even recommendations for pollution control measures may be affected slightly.

The roughly 2.7 square mile area of direct drainage to Green Bay that is included in the FVWQPA delineation of the Duck Creek Watershed, is part of a small sub-basin containing approximately an additional 9.1 square miles. This 11.8 square mile sub-basin is not within the planning area of either the FVWQPA or the Upper Green Bay Basin Water Quality Management Plan. It contains the Barkhausen Impoundment and a canal-type ditch, which functions as a major spawning area for northern pike. Unfortunately, however, it has been omitted from recent water quality planning efforts.

To some degree, the problem gaps identified in the Duck Creek Watershed have been offset through planning and water quality analysis by an Oneida Tribal Coastal Management Project on Duck Creek and its tributaries. However, the focus of this project has been on only the portion of the watershed which is contained within the Oneida Indian Reservation; and the areas noted are beyond this jurisdiction.

Both the FVWQPA sub-watershed file, and the Oneida Coastal Management Project have identified water quality problems on Duck Creek.

Possible Resolution: Correct Duck Creek Watershed boundaries in the "208" planning area of theFVWQPA; and incorporate the sub-basin containing the Barkhausen Impoundment into an officially adopted water basin plan.

The Water Quality Management Plan Fox River Valley Wisconsin, other reports produced by the FVWQPA, and the Upper Green Bay Basin Water Quality Management Plan contain recommendations for controlling point and non-point-source pollution.

9. Areas of Sprawl Development

Problem/ Conflict: Work Paper 4 of the Brown County Comprehensive Plan Continuing Planning Program has identified areas in which a more rapid rate of urban land use development has taken place than was predicted or proposed in 1968. Some of these areas were proposed for continued agricultural use; others were designated for open space or environmental conservation. Examples of such areas within the West Shore Study area include:

-Southern portions of the Town of Suamico
-Western portions of the Village of Howard

This type of "sprawl development" is certainly not limited to these areas alone, or to the Brown County portion of the West Shore Study area. It merely reflects a local example of a problem occurring in the state and nation. The Brown County problem areas are listed because of specific reference in the Work Paper 4 document.

10. Suamico Lacustrine Flats

Problem/ Conflict: The Natural Area Inventory Wisconsin Great Lakes Coast identifies the Suamico Lacustrine Flats as a natural history area (NA-3), mainly because of its undeveloped nature and size. The area extends inland from Green Bay some 2 to 2½ miles. Environmentally Significant Areas in Brown County, Wisconsin, however, shows the area which is environmentally significant to extend inland no more than one-half mile, with the exception of surface water.

Only portions of this area, which includes the county owned Barkhausen Sanctuary and Peter's Marsh property, have been discussed in local plans. The Town of Suamico Comprehensive Plan shows the portion of this area east of the present U.S. 41-141 as being "parks, recreation, open space" under 1985 Proposed Land Use Commitments. A Comprehensive Plan for the Village of Howard, Wisconsin, on the other hand, recommends the entire portion of this natural area under village jurisdiction for "conservation-wildlife" in the Land Use Plan. Neither of these local governmental units, however, have implemented the recommendations with corresponding zoning.

The Green Bay West Shores Master Plan Concept Element (a Wisconsin DNR plan) includes only lands east of Brown County Highway "J" within their unit acquisition boundaries. This includes approximately half of the Suamico Lacustrine Flats, and is in general agreement with the Brown County Open Space and Outdoor Recreation Plan recommendation for state open space via the acquisition of wetlands of the Bayshore primarily between CTH "J" and the Bay of Green Bay.

Problem gaps identified for this area include a lack of agreement regarding its environmental significance or natural value, and the future disposition of acreages west of Brown CTH "J", which are largely in private ownership.

11. Long Tail Point

Problem/ Conflict

Long Tail Point is currently under state ownership, and is part of a wetlands/wildlife unit as shown in the Green Bay West Shores Master Plan Concept Element. It was identified as a problem area by local residents participating in the West Shore Study, because of its reduced size and shoreline protection capabilities following recent high water levels and storm events. After the devastating storm in April, 1973, petitions were signed by over 3000 Bay area residents who sought resolution of the problem.

A request for a "Section 103" shore erosion study on Long Tail Point was reportedly made to the U.S. Army Corps of Engineers in 1974; but this study was never conducted. Some participants in the West Shore Study's Brown County Subcommittee urged a study of Long Tail Point for its spoil disposal site/ shore protection potential. Other participants were concerned about the environmental effects and feasibility of dredge disposal deposition at the site. It is therefore identified as the site of an unresolved problem/conflict.

12. State Acquisition Project Boundaries-Long Tail Unit

Problem/ Conflict

The Green Bay West Shores Master Plan Concept Element identifies eleven wetland/wildlife units for state acquisition and management. In reviewing the acquisition plan, participants in the West Shore Study's Brown County Subcommittee identified a conflict with regard to determination of certain unit boundaries. A parcel contiguous to the "Long Tail Unit" was not included in the acquisition plan, although a road flanking the western edge of the property was observed to be the first inland physical barrier. In addition, there are no houses on the property, and the land use or habitat was observed to be the same as on adjacent parcels which are identified for acquisition.

A general comparison of the physical resource base from the Soil Survey of Brown County, Wisconsin indicates that the soil type and wetness characteristics of the property in question are the same as on adjacent parcels which are contained within the acquisition project boundaries. The habitat rating for this property from Fish and Wildlife Habitat Study Wisconsin Great Lakes Shoreline is the same as some adjoining areas included in the acquisition plan, because the agricultural land use did not warrant them being rated or considered valuable as wildlife habitat. In addition, this property is a quarter of a mile closer to the shoreline than other parcels sought for acquisition in the Long Tail Unit.

The DNR indicates that the project boundaries may follow property lines, and may omit certain parcels where ownership of the land changes. In comparing possible criteria for the prioritization of land to be acquired, ownership appears to be the only correlating factor along portions of the boundary. This presents a conflict in terms of not acquiring property based on the inherent natural value or wildlife productivity that are identified in previous studies.

13. Potential Access Site to the Bay on Harbor Lights Lane

Problem/ Conflict

The Green Bay West Shores Master Plan Concept Element identifies a potential access site to the Bay on Harbor Lights Lane within the proposed Long Tail Unit in the Town of Suamico. Town of Suamico officials participating in the West Shore Study identified problems with providing public access at the site because of physical/environmental limitations, inadequate policing, and the potential for littering, vandalism, etc. This site was the subject of a 1977 DNR public access proposal which received largely negative comments during the A-95 review process.

Additional problems with the proposed access site, as noted by West Shore Study participants, are the costs that would be associated with dredging Dead Horse Bay for boat access, and the fact that the Suamico boat launching facility is within three miles of the Harbor Lights Lane location.

14. Suamico River

a. Water Quality

Problem/ Conflict

The Upper Green Bay Basin Water Quality Management Plan has identified a number of water quality problem sources along the portion of the Suamico River within the West Shore Study area. These include the Howard-Suamico School District, and areas suspected of being affected by animal waste runoff problems.

Possible Resolution

It was recognized during the production of the plan (1979-80), that the construction of wastewater treatment facilities in Suamico Sanitary District #1 would help alleviate water quality problems such as the school district's, and the malfunctioning septic systems which were the primary target of a 1968 clean-up order issued by the DNR.

The Upper Green Bay Basin Plan contains recommendations aimed at controlling the problems from animal waste runoff.

b. Harbor/Boat Landing

Problem/ Conflict

The Suamico River was identified as a problem area by West Shore Study participants because it is in need of maintenance dredging. Although commercial fishermen use the channel, the facility is largely recreational. Thus it has not been able to successfully compete with commercial harbors to obtain the limited funds for U.S. Army Corps of Engineers dredging. The Brown County Marina plan indicates that the Suamico River was one of eight sites evaluated in a selection process for a county recreational boat harbor. A relatively low benefit/cost ratio and rankings, however, did not lead to its further consideration.

15. Suamico Sanitary District

a. Organization and Assessments

Problem/ Conflict

The Suamico Sanitary District #1 is a portion of the West Shore Study area which has been the subject of controversy and conflict during much of the West Shore Study. Although many of the problems may now officially have subsided, the legality of the Sanitary District's creation was challenged by over 51 percent of the property owners in the district, and construction/installation of the sewage system is taking place under a degree of protest.

The assessments being levied for hook-up, frontage feet, and user charges were questioned by some district members as being both high and inequitable.

Conceptually, however, installation of the system is in agreement with the attainment of 1972 Federal Clean Water Act objectives, with recommendations in The Upper Green Bay Basin Water Quality Management Plan, and with the Brown County Sewage and Solid Waste Plan, which proposed that the base area be sewered by 1985.

b. Boundaries

Problem/ Conflict

The Suamico Sanitary District #1 boundaries as shown in the Facilities Plan Update for Wastewater Collection and Treatment System and Water Supply for the Suamico Sanitary District Brown County, Wisconsin were identified as a problem by a number of West Shore Study participants. The district, in some cases, is serving isolated concentrations of development; and long connector lines, adding to the relatively high cost of the system, were needed to service these areas. The conflict of opening up marginal wetland areas for development by installing sewers vs. the need to service already existing residences in "trouble areas" was cited as an additional problem.

c. Sewer Outlet Pipe

Problem/ Conflict

The discharge location for the Suamico Sanitary District #1 wastewater treatment facility will be near the mouth of the Suamico River as it enters Green Bay. This has been cited as a potential problem by West Shore Study participants because it may present an obstacle to navigation, due to its location with respect to the Suamico River harbor channel. Given the existing littoral drift pattern, potential water quality deterioration on the "downdrift" portion of Long Tail Point commonly used as a swimming beach was also questioned.

OCONTO COUNTY

OCONTO COUNTY

16. Little Suamico River

Problem/ Conflict — The Upper Green Bay Basin Water Quality Management Plan has identified a number of water quality problem sources along the portion of the Little Suamico River contained within the West Shore Study area. These include suspected animal waste runoff problems and streambank erosion problems.

Possible Resolution — The Upper Green Bay Basin Plan contains recommendations outlined to help curb the problems listed. Elimination of septic failure problems in the area is projected by creation of a sanitary district and installation/use of a sanitary sewage system (presently under construction).

17. Clifford Marsh

Problem/ Conflict — Clifford Marsh, as shown in the Tibbet-Suamico Unit of the Green Bay West Shores Master Plan Concept Element, is a "land-locked" piece of state owned property. West Shore Study participants have observed a problem with hunters neglecting private property owners' rights in gaining access to the state land. This is a specific example of a general problem noted to be occurring throughout the West Shore Study area.

18. Little Suamico Sanitary District

Problem/ Conflict — The Facilities Plan for Little Suamico Sanitary District No. 1 Wastewater Collection and Treatment System, recommends serving the four geographically separate areas of Sobieski, Little Suamico, Sobieski Corners, and Geano Beach-Lade Beach. A potential problem area identified is Geano Beach, because this area will not be incorporated in the sanitary district as originally planned. The Sewer and Water Plan Oconto County, Wisconsin concludes that a serious problem with respect to water and sewer exists in the Geano Beach-Lade Beach area. A sanitary district is thus recommended.

Construction has begun on a sanitary sewage system which will initially serve the unincorporated communities of Sobieski and Little Suamico. Meanwhile, local officials participating in the West Shore Study have voiced concerns about the high cost of the system, and complained that nearby areas with septic system problems will not be serviced.

Construction of the sewage system is in general agreement with attaining the objectives of the 1972 Clean Water Act, with the recommendations of the Upper Green Bay Basin Water Quality Management Plan; and it complies with a clean up order issued in 1971 to correct the problem of septic system malfunctioning.

19. Town of Abrams Sanitary District

Problem/ Conflict — It was noted by participants in the West Shore Study's Oconto County Subcommittee that the Town of Abrams had started, but later dropped, planning for a sanitary district. The Town has experienced a rapid rate of population growth during the period 1970-79 (over 39 percent according to DOA estimates). Concern was expressed that if the DNR would now issue a "clean-up order", as it has already done for nearby communities along the West Shore, then planning and sewage system installation would be much more expensive due to inflation.

The Upper Green Bay Basin Water Quality Management Plan indicates that a sanitary survey conducted in June 1976 by DNR Lake Michigan District personnel found that many of the septic systems were malfunctioning. There were three instances where sewage water appeared on the surface. This tends to confirm locally raised concerns about the potential for issuance of clean-up orders.

Possible Resolution — The Upper Green Bay Basin Plan suggests that steps should be taken collectively by the Sanitary District, or by each residence with problems, to improve this situation. The Sewer and Water Plan Oconto County, Wisconsin (1971) recommended a public water system, and a centralized sewage system because of the topography and drainage problems.

20. Pensaukee Lacustrine Forest

Problem/ Conflict — The Natural Area Inventory Wisconsin Great Lakes Coast identifies the "Pensaukee Lacustrine Forest" as a large natural history area (NA-3). The area is privately owned and its protection does not appear to be discussed specifically in any local plans or studies. Therefore, its natural value, wildlife productivity, and open space attributes, which are benefits to the public, remain uncertain because of the private ownership. Much of the area is zoned "recreational" under the Oconto County Zoning Ordinance; but this designation does not preclude housing and other types of development, which are permitted uses under this zoning category.

The Pensaukee Lacustrine Forest is contiguous to the Pensaukee Wildlife Area Unit of the Green Bay West Shores Master Plan Concept Element, and to land sought for state purchase. The overwhelming majority of this area, however, is not identified or prioritized for acquisition despite its high quality wildlife habitat. The problem of the protection and future disposition of this natural area remains to be addressed.

21. Pensaukee River

Problem/ Conflict: The Upper Green Bay Basin Water Quality Management Plan identifies several water quality problem sources along the portion of the Pensaukee River contained within the West Shore Study area. These are: suspected animal waste runoff problems, streambank erosion problems, and construction-related runoff problems due to housing developments.

Possible Resolution: The Upper Green Bay Basin Plan contains recommendations outlined to help control the non-point-source pollution problems.

22. Proposed Coal-Fired Power Plant Site

Problem/ Conflict: An area in the southwest portion of the Town of Oconto has been identified by the Wisconsin Public Service Corporation as one of three potential sites for locating a new coal-fired electric generating plant. This identification has led to the development of two factions: those favoring construction of a new power plant in the Town of Oconto and those opposing such construction. A number of local meetings - both organizational and informational - have been conducted regarding various facets of the proposed construction. Different aspects of the proposed project are perceived as potential problems by different groups.

23. Oconto County Forest

Problem/ Conflict: The Natural Area Inventory Wisconsin Great Lakes Coast identifies the "Oconto County Forest" as a natural history area (NA-3), primarily because of its size. The area is largely county owned, but contains private inholdings. Most of the area is currently zoned for "forestry" under the Oconto County Zoning Ordinance, thus affording a degree of legal protection by prohibiting year-round residences except by variance. A remaining problem is the future disposition of private inholdings within this natural area.

24. Oconto City Park

Problem/ Conflict: City Park is actually one and one-half miles to the south of the City of Oconto. The 1980-85 Outdoor Recreation Plan for the City of Oconto recommends a number of major improvements for the site, including the addition of sand to the beach, relocation of a parking lot, and rehabilitation of the park pavilions. Nevertheless, the Oconto Park Board has indicated that the park's future is tenuous. The location of the park outside the city limits has made policing of the area difficult. Littering, curfew violations, and vandalism have been recurring problems.

Possible Resolution: An exchange of ownership may be accepted, if another public entity (the county or town, for example) would agree to manage the park.

25. City of Oconto-Sanitary Sewer Separation

Problem/ Conflict: The City of Oconto has initiated work on a sewer separation project. This was undertaken to eliminate the clearwater portion of wet weather flows which have periodically overloaded and, consequently, necessitated bypassing of the treatment plant. Portions of these wet weather flows have thereby been discharged directly to the Oconto River.

Some West Shore Study participants have identified construction practices used in this project as a problem. Namely, sewage line work reportedly has been completed in some areas without adequately repairing the streets which were torn up.

Possible Resolution: Achieving the separation of storm and sanitary sewers will be in general agreement with the goal of "fishable, swimmable" water as set by Congress in the Clean Water Act of 1972, and with the recommendations of The Upper Green Bay Basin Water Quality Management Plan. In addition the Facilities Plan for City of Oconto Combined Sewer Separation Project notes that all adverse impacts would be short term in nature, associated with the construction period.

26. Oconto Harbor Development

The Oconto Harbor Study proposes a four-phase, three million dollar development to upgrade the existing harbor facilities located at the mouth of the Oconto River. The study report indicates: that there presently do not appear to be any major environmental impacts which would inhibit development of the harbor; that a sufficient demand exists to support a full service marina at Oconto; that the demand for the development of a large scale commercial harbor at the mouth of the Oconto River appears to be small; and that the master plan is realistic and can be developed within the city's financial capabilities if funding opportunities are pursued and private developers are sought out.

While participants in the West Shore Study's Oconto County Subcommittee did not react negatively to the concepts contained within the Oconto Harbor Master Plan, and generally appeared to agree with the idea that a sufficient demand exists to support a full service marina, a number of potential problems/conflicts were identified.

a. Economic Support for Implementation

Problem/ Conflict: West Shore Study participants questioned whether there would be enough local financial support or private investors to make achievement of the Master Plan realistic.

b. Breakwater Extension and Dredging

Problem/ Conflict — Although the Oconto Harbor Study reports that there do not appear to be any major environmental impacts which would inhibit development of the harbor, and recommends conducting an environmental analysis well before final design of major facilities is underway, the required permits and funding for extension of the south breakwater and dredging may be major hurdles to clear enroute to harbor development.

A problem noted was the fact that the U.S. Army Corps of Engineers, Kewaunee Project Office was not made aware of the Oconto Harbor Study with its associated Master Plan.

c. Recreational vs. Commercial Development

Problem/ Conflict — While the Oconto Harbor Study concludes that the demand for the development of a large scale commercial harbor at the mouth of the Oconto River appears to be small, participants in the West Shore Study's Oconto County Subcommittee felt that the reason for the harbor's present status is the lack of influential backing. A naturally deep channel a short distance off the breakwater was cited as an example of the harbor's potential.

27. Little River

Problem/ Conflict — The Upper Green Bay Basin Water Quality Management Plan identifies suspected animal waste runoff problems along the portion of the Little River (tributary to the Oconto) within the West Shore Study area.

Possible Resolution — The Upper Green Bay Basin Plan contains recommendations to help control the problems indicated.

28. Town of Little River Bulkhead Line

Problem/ Conflict — Local officials from the Town of Little River have indicated that a problem exists because of the inability of the Town to get approval for a municipal bulkhead line and ordinance for the purposes of Green Bay shoreline stabilization and protection.

29. County Line Swamp

Problem/ Conflict — The Natural Area Inventory Wisconsin Great Lakes Coast identifies this large parcel which extends into Marinette County as a natural area of county or multi-county significance (NA-2), primarily because of its size (see also #31, Marinette County). The area is largely county owned, and managed as

part of the County Forest System; but there are private inholdings, especially along the periphery. Most of this natural area in Oconto County is zoned "recreational" or "forestry," the latter of which affords a greater degree of protection. "Recreational" zoning under the Oconto County Zoning Ordinance does not prevent residential and other types of development in those portions of this natural area which are so zoned, and in private ownership. Problem gaps, therefore, are the protection and future disposition of private inholdings in this natural area.

30. North Bay Shore Recreation Area

The Oconto County Outdoor Recreation Plan recommends the completion of this park as planned, provision of a high level of maintenance, dredging of the boat ramp area, and the expansion and development of the beach area.

Participants in the West Shore Study noted several problems which exist related to this recreation area. These are tied to physical limitations at the site, or to the legal framework regulating environmental alterations.

a. Sedimentation via Roadside Ditch

Problem/ Conflict — Flooding in the park area has historically been a problem during periods of spring runoff and major storm events. However, when Oconto County Highway "Y" was reconstructed to eliminate a right-angle bend, an erosion and sedimentation problem developed which is associated with the roadside ditch (see also #32, Marinette County). The ditch itself has eroded severely, and the unstabilized steep banks continue to be a problem. When the park has been subjected to overflow from the "stream" in the past, it has acted as a deposition trap for sediments, creating a potentially recurring problem in maintenance.

b. Infilling of the Boat Launching Channel

Problem/ Conflict — Because of sediment transport and deposition via the upstream ditch (letter "a" above), and the littoral drift pattern of Green Bay in this vicinity, the park boat launching channel may be very subject to infilling. This may necessitate frequent dredging, and is a problem both from the standpoint of maintenance costs, and dredge spoil disposal.

c. Expansion of the Beach Area

Problem/ Conflict — Recent periods of high water (1973-1975) and storm events have reduced the extent of "high ground" in the park along the Bay of Green Bay. A sizable area of the park which was reported to have been "dry" at one time is presently a wetland. Oconto County has worked with the permitting agencies

to establish guidelines for the placement of fill needed to meet park objectives. However, further expansion of the beach area, as is recommended in the Oconto County Outdoor Recreation Plan, would require additional approval by the U.S. Army Corps of Engineers for the filling of a wetland. The shoreline erosion potential at the park site may additionally necessitate frequent maintenance if the beach is expanded.

MARINETTE COUNTY

MARINETTE COUNTY

31. County Line Swamp

Problem/ Conflict — The Natural Area Inventory Wisconsin Great Lakes Coast identifies this large parcel which extends into Oconto County as a natural area of county or multi-county significance (NA-2), primarily because of its size (see also #29, Oconto County). The area is mostly county owned, but there are private inholdings along the periphery. Local zoning does not protect the portions of this natural area in Marinette County which are not in public (county) ownership. Therefore, the protection and future disposition of private inholdings within this natural area are problem gaps.

32. Ditch Along County Highway "Y"

Problem/ Conflict — Participants in the West Shore Study identified a problem with the ditch along County Highway "Y" in Marinette and Oconto Counties (see also #30A, Oconto County). A former stream flowing south to Green Bay was channelized to this roadside ditch when roadway reconstruction took place. Instead of flowing due south to the Bay, the "stream" is now diverted to the southwest with the road as it makes a bend, and enters Green Bay at a location farther to the west than it did originally.

A major period of runoff in the past caused the fine alluvial and lacustrine sands of this ditch to erode away, leaving a canal-like structure of a greatly exaggerated size and depth stretching two miles inland from the Bay of Green Bay. The by-product of this erosion was a severe sediment deposition problem in the North Bay Shore Recreation area, including the boat launching channel.

The unstabilized steep banks of the ditch continue to cause erosion problems at the site, with gullying and recessional fall lines moving back into the County Line Swamp, which may be having detrimental effects on this natural area (see Nos. 29 and 31).

The Soil Conservation Service has made a series of recommendations to help correct the problems, but to date none have been implemented.

Possible Resolution — Implement SCS recommendations to help eliminate erosion and sediment deposition problems.

33. Peshtigo City Beach

Problem/ Conflict — The City of Peshtigo, while participating in the West Shore Study, indicated that a weed problem has caused the quality of swimming to deteriorate at the city swimming beach on the Peshtigo River.

Possible Resolution — The Marinette County Outdoor Recreation Plan includes a proposal that the City of Peshtigo should pursue improvement of the swimming beach area by dredging the river and maintaining the adjacent park. (The dredging would require the proper state and federal permits.)

Participants in the West Shore Study's Marinette County Subcommittee suggested a lake-related research project to determine the source of the problem and possible corrective measures.

34. Peshtigo River

Problem/ Conflict — The Upper Green Bay Basin Water Quality Management Plan identifies a point source water quality problem along the portion of the Peshtigo River within the West Shore Study area. The City of Peshtigo/Badger Paper Mills, Inc. have been cited with Wisconsin Pollutant Discharge Elimination System (WPDES) permit violations to the Peshtigo River.

Possible Resolution — The Upper Green Bay Basin Plan indicates that a court settlement has recently been reached on a revision of final effluent limits set by the DNR. Final plans for an activated sludge system with subsurface aeration were approved in October, 1979, with a mandatory operational date of May, 1981.

A post-operation wasteload allocation model study will be conducted to verify impacts on the Peshtigo River as a result of imposed water quality-related effluent limits.

35. Peshtigo River Floodplain Forest

Problem/ Conflict — The Natural Area Inventory Wisconsin Great Lakes Coast identifies this forest as a natural area of county or multi-county significance (NA-2). The area is privately owned, and its natural character is not protected to any appreciable extent by zoning. It lies within the "agricultural" district in the Zoning Ordinance of Town of Peshtigo, and much of it is subject to the Marinette County Shoreland Zoning Ordinance. The latter imposes building and tree cutting restrictions, but not nearly to the extent required to protect its natural value. A potential problem, therefore, is the continued protection of the area in the future.

An additional consideration relative to the Peshtigo River Floodplain Forest is the fact that it is contiguous to existing public (state) ownership as shown in the Green Bay West Shores Master Plan Concept Element. This parcel, an NA-2 however, has not been identified or prioritized for state acquisition. Nearby areas, on the other hand, are being sought for state purchase and, while being rated as "high quality wildlife habitat" in Fish and Wildlife Habitat Study Wisconsin Great Lakes Shoreline along with this forest, these areas are not specifically identified as possessing special natural merit in the Natural Area Inventory.

36. Peshtigo Harbor Boat Access

Problem/ Conflict — Participants in the West Shore Study's Marinette County Subcommittee have identified problems in the Peshtigo Harbor boat ramp area which lies on the west side of the Peshtigo River near its mouth. The parking was felt to be inadequate, and the road too narrow. The area is shown in the Green Bay West Shores Master Plan Concept Element as a continued access site.

37. Peshtigo Harbor Area Disputes

An area to the east of the Peshtigo River's mouth in the Peshtigo Harbor Wildlife Area was identified by participants in the West Shore Study's Marinette County Subcommittee as being the source location for a number of problems. These are:

a. Land Ownership

Problem/ Conflict — Land along the Peshtigo River currently being utilized by commercial fishermen has given rise to court suit and counter suit between the fishermen and the DNR. The state has reportedly argued that, as squatters, the commercial fishermen have no right to ownership and use of the land, while the fishermen have argued to the contrary.

b. Roadway/Bridge Jurisdiction and Maintenance

Problem/ Conflict — Johnson Road, which leads from Marinette County Trunk Highway "BB" south to an area currently utilized by commercial fishermen, has been the subject of jurisdictional and maintenance disputes. West Shore Study participants report that there has been a three-way argument of an ongoing nature between the commercial fishermen utilizing the narrow road and deteriorating wooden bridge, the State of Wisconsin, and the Town of Peshtigo as to who is responsible for providing service and maintenance for the road.

38. Peshtigo Point Area Black Muck

Problem/ Conflict: Participants in the West Shore Study's Marinette County Subcommittee identified a problem with "black muck" which originates near Peshtigo Point on a seasonal basis. It was observed to create water quality and aesthetic problems for residents along Shore Drive.

Possible Resolution: Study participants felt the problem should be the focus of special study.

39. Peshtigo Natural Areas

Problem/ Conflict: The Natural Area Inventory Wisconsin Great Lakes Coast identifies a number of natural areas in the Town of Peshtigo ranging in significance from natural history areas (NA-3), to areas of county or multi-county significance (NA-2), to areas of statewide or greater natural area significance (NA-1). All of these natural areas have at least three things in common.

First, the areas are currently in private ownership. Thus, barring any protective agreements, their continued natural status may be regarded as somewhat tenuous.

Second, the areas are not protected by local town or county shoreland zoning. They are outside the jursidiction of the Marinette County Shoreland Zoning Ordinance, and are not protected under the "Agricultural District" of the Zoning Ordinance of Town of Peshtigo.

Third, the areas do not appear to be discussed specifically in local plans or studies; although the Marinette County Outdoor Recreation Plan recommends, in a general sense, that a detailed study of "scientific areas" should be initiated and a working program designed for future actions on these unique features. Therefore their unique natural value, which provides certain benefits to the public despite the ownership status, remains largely unaddressed locally.

The areas are as follows:

- -Ansul Patterned Dunes (NA-2)
- -Bloch-Dry-mesic Forest (NA-1)
- -Melka-Nicklaus Esker (NA-2)
- -Peshtigo River Oaks (Bloch Oaks) (NA-2)
- -Pine Forest Remnants (NA-3) (portions)
- -Wayside (Kamin) Oak Pine Forest (NA-2)

Of these natural areas, the Bloch-Dry-mesic Forest (NA-1) merits special recognition. The Natural Area Inventory notes that the evaluation of sites as having statewide or greater natural area significance (NA-1) simultaneously conveys the highest preservation priority to these sites, and

therefore it recommends that public and private agencies closely involved in land acquisition or natural area preservation give those NA-1 sites which are either privately owned or outside of existing acquisition boundaries, top priority as candidates for preservation. Acquisition is suggested as one useful method of arranging for long-term protection of these sites. Also suggested in the Natural Area Inventory is that, whenever feasible, alternative methods of land preservation should be explored.

The Bloch-Dry-mesic Forest is listed as one of ten NA-1 sites (out of a total of 48 sites statewide) which are highlighted because of their exceptional natural area qualities, and critical need for preservation action.

This natural area lies a quarter-mile away from state-owned land in the Peshtigo Harbor Wildlife Area, and from land the state is seeking for acquisition, as shown in the Green Bay West Shores Master Plan Concept Element. Nevertheless, this parcel is outside of acquisition boundaries.

40. Shore Drive Bicycle Lane

Problem/ Conflict — Participants in the West Shore Study's Marinette County Subcommittee identified a problem along Shore Drive (Marinette County Highway "BB") because of bicycle traffic and the narrow shoulder.

The Marinette County Outdoor Recreation Plan shows an existing designated bicycle trail along this route, and reports an increase in popularity of bicycling within the county, indicating a need (according to the plan) for additional designation of low volume traffic routes which can be considered for marked bicycle routes.

Possible Resolution — West Shore Study participants suggested that a bicycle lane should be added along Shore Drive. The Marinette County Outdoor Recreation Plan proposes a bicycle trail on CTH "D" going northwest out of Peshtigo. This may relieve some of the non-local or non-trip specific bicycle touring along the problem route.

41. Area of Potential Well-Water Contamination

Problem/ Conflict — Participants in the West Shore Study's Marinette County Subcommittee identified a potential problem with well-water contamination for the residences located along Shore Drive. Although contaminated water apparently has not been documented by testing, failing septic systems have been observed.

The Upper Green Bay Basin Water Quality Management Plan indicates that septic systems create local water quality problems in the Upper Green Bay Basin because they can contaminate ground and/or surface water and may create a public health hazard.

Possible Resolution: The Upper Green Bay Basin Plan provides a list of recommendations for developing a comprehensive countywide program aimed at solving septic system problems.

The Sewer and Water Plan Marinette County, Wisconsin concluded and recommended that the Green Bay Shoreline extending south from the City of Marinette to near Peshtigo Point should either be annexed to the city and served by sanitary sewers, or should form a sanitary district. The plan indicates that if a sanitary district is formed, arrangements would have to be made with the City of Marinette for treatment of wastewater. Additionally, the 1971 plan states that if a sewer collection system is installed, private water systems should be adequate until 1991. (see also #42).

42. Proposed Town of Peshtigo Fire Well Sites

Problem/ Conflict: It was reported by the Town of Peshtigo during the West Shore Study, that application had been made for funding to install several large wells in the town for fire fighting/ protection purposes. The funding application was denied because the sole or primary use of the wells reportedly could not be for fire protection. This, nevertheless, has not altered the Town's need in this regard.

Possible Resolution: It was suggested during a meeting of the West Shore Study's Marinette County Subcommittee that by having a large, deep well installed near Shore Drive, it could be used as both a municipal water supply for residents, and also fire fighting/ protection purposes. This, it was felt, would help solve the dual problem of potential drinking water contamination due partially to shallow wells, and the inability to obtain grant funds for large wells used primarily for fire protection.

43. Leafe Road Site

Problem/ Conflict: A site on Leafe Road one-half mile from Shore Drive was identified as a problem during a meeting of the West Shore Study's Marinette County Subcommittee. The problem exists because former sand/gravel extraction operations have left several water-filled depressions which are currently being used for swimming. The underlying issues are trespassing, safety, and potential littering and vandalism at the site.

Possible Resolution: West Shore Study participants suggested the Leafe Road property as a site for a day-use park.

44. Little River Access

Problem/ Conflict: Participants in the West Shore Study's Marinette County Subcommittee identified a trespassing problem on land along Shore Drive which is owned by the Little River Golf Club

opposite the Little River County Park. Heavy use of the area by fishermen was cited, especially during certain times of the year. Camping in the area was also reported to have occurred.

Possible Resolution: In order to relieve the trespass problems and provide additional access, study participants suggested that a strip of land be acquired from the golf course. This could be consistent with further implementation of a recreation proposal in the Marinette County Outdoor Recreation Plan, which identifies the Little River area as a primary starting point for the county to begin its shoreline recreation program; providing sanitary facilities, camping, and parking.

45. Shore Drive Swale/Ditch

Problem/ Conflict: Participants in the West Shore Study's Marinette County Subcommittee identified a problem with the dumping of brush in a swale (small ditch) going down to the Bay opposite the University of Wisconsin-Marinette Center. Section 5.4 of the Marinette County Shoreland Zoning Ordinance requires a conditional use permit for such activities.

Possible Resolution: An access site to the Bay was suggested at this location by study participants.

46. Highway 41 Marinette-Peshtigo

The Highway 41 Marinette-Peshtigo study recommends construction of two additional 12-foot lanes with either intersections or a fifth lane to allow left turns on the 4.7 mile stretch of USH 41 between Marinette and Peshtigo. The Wisconsin Department of Transportation (DOT) Six Year Highway Improvement Program schedules this reconstruction objective in 1983, at a cost of nearly two million dollars (1980).

A number of problems related to this reconstruction project were discussed during West Shore Study meetings, most of them because local officials and residents have shown support for the project, and wish to see it through to completion. The problems are as follows:

a. Construction Schedule

Problem/ Conflict: As noted, the DOT's Six Year Highway Improvement Program includes the USH 41 reconstruction project in 1983. Recent reports of funding cutbacks have suggested that the date could be pushed back to 1985. In the meantime, the projected increase in use is adding to the problem of existing traffic volumes, which are presently higher than design capacity, according to the Highway 41 Marinette-Peshtigo study. As traffic increases, the efficiency of the highway in moving traffic will steadily decline, and the accident rate is likely to increase. Local residents participating in the West Shore Study felt the four lane facility is needed now.

b. Drainage Problem

Problem/ Conflict — A wetness/drainage problem was noted in the area between Roosevelt Road and the Marinette city limits by participants in the West Shore Study's Marinette County Subcommittee. The problem was reported to be most serious in the area where Roosevelt Road intersects with USH 41, the Chicago & Northwestern Railroad Tracks, and Old Peshtigo Road. Flow here has been impeded, and water cannot pass under roadways.

Possible Resolution — The Town of Peshtigo is relying on the DOT to address this problem in its engineering design study.

c. Need for Access Limitations

Problem/ Conflict — The Highway 41 Marinette-Peshtigo study cites a total of 43 commercial, 18 residential, and 18 public access points along the 4.7 mile corridor between Marinette and Peshtigo on USH 41, as of 1978. This, it says, is a critical impact because of the potential for increasing the accident rate with increased highway usage; and more restrictive access control must be implemented to allow for the efficient movement of traffic.

Possible Resolution — Measures suggested in the highway study to resolve the problem include placing limitations on the number and distance between new access points, combining existing commercial access points which are minimally utilized, and increasing setbacks for future frontage road development.

The Department of Transportation has indicated that an upcoming meeting will be scheduled in the area to discuss this and other aspects of the improvement project.

d. Desired North Access Lane

Problem/ Conflict — Participants in the West Shore Study's Marinette County Subcommittee identified a potential problem with the hazards of entering and, particularly, existing the future four-lane highway, and hitting gravel at high speeds.

Possible Resolution — Local officials from the Town of Peshtigo indicated that they would like a black-topped access lane (shoulder) north of the highway to keep traffic moving and circumvent these potential hazards.

e. Desired Reconstruction of Old Peshtigo Road

Problem/ Conflict — Participants in the West Shore Study's Marinette County Subcommittee suggested that Old Peshtigo Road be reconstructed and act as a service road along USH "41" when it is converted to a four-lane facility. Problems identified with the pre-

sent road that need correction include its narrow width, numerous curves, and lack of a shoulder. A potential conflict was noted between the need to improve the road thereby making it safer and speeding the flow of traffic, and the need to maintain moderate speeds because of residences and farming operations which transport slow moving machinery.

47. Red Arrow Park

The City of Marinette received a grant from the Wisconsin Coastal Management Program in 1979-80 for restoration and protection of the beach area at Red Arrow Park. A bid which was considerably lower than anticipated, however, was submitted to the city for the subcontracted removal of a steel bin-wall and associated debris at the park beach. This resulted in a surplus of grant funds, thereby allowing the city to enter a master-planning phase for the park. The subcontracted removal of the bin-wall and the plans for future park development have resulted in the identification of two problem/conflict areas.

a. Dredging and Removal of Sand

Problem/ Conflict

In the process of removing the steel bin-wall, the subcontractor dredged a significant amount of material (mostly sand) from the bottom of Green Bay, and removed in excess of 1000 cubic yards from the park site. Because the necessary permits to do this had not been procured, the work accomplished was in violation of Chapter 30.20 of the Wisconsin State Statutes, Section 10 of the River and Harbor Act of 1899, and Section 404 of the Federal Water Pollution Control Act Amendments of 1972. It was also in conflict with preliminary (unpublished) park master plan objectives for the retention of all possible sand.

The respective agency officials (state and federal) were under the assumption that a chain, cable, or extractor would be used to remove the bin-wall, and that only incidental amounts of sand would be removed in so doing.

The City of Marinette, the Wisconsin DNR, and the U.S. Army Corps of Engineers have reached an agreement with respect to the violations which occurred; and a small fine was levied against the City of Marinette and the contractor by the State of Wisconsin. The DNR conducted an environmental assessment prior to issuing an "after-the-fact" permit.

b. Land Ownership

Problem/ Conflict

Participants at a meeting of the West Shore Study's Marinette County Subcommittee identified a conflict in ownership claims between the City of Marinette and private citizens over certain land parcels in the Red Arrow Park vicinity. The prospective implementation of the Red Arrow Park Master Plan

will have a definite impact on the disputed properties, and visa-versa. As a result, a special meeting through the Green Bay West Shore Study was called to discuss the issue; and all parties who expressed an interest were invited to attend.

Both the City of Marinette and the private citizens who state claim to the land presented written "documentation" of their right to ownership, and each side maintains that the legal papers possessed by the other are invalid.

Possible Resolution: It was a consensus recommendation of those present at the special meeting for Red Arrow Park that:

> In order to settle the land ownership dispute and consequent impacts on the Red Arrow Park Master Plan, the issue needs to be settled in a court of law.

c. Sea Gull Bar Overuse

Problem/ Conflict: Staff from the state Scientific Areas Preservation Council identified a problem with persons overusing Sea Gull Bar, causing damage/disturbance to sensitive vegetation communities and bird nesting sites. This peninsula extending southeast from Red Arrow Park is identified as a state scientific area in the Natural Area Inventory Wisconsin's Great Lakes Coast, which conveys a natural area significance of at least statewide importance.

The West Shore Study's Marinette County Subcommittee discussed Sea Gull Bar relative to the possibility of developing a hiking trail for access. This idea, however, was met with opposition as the scientific area status and migratory waterfowl utilization were reviewed by meeting participants.

Possible Resolution: "Wisconsin's Program for Preservation of Natural Areas and Other Minimum-Management Lands," indicates that scientific area use must be limited to maintain quality, and that specific accessibility and use restrictions be incorporated into management plans for the protection of scientific areas.

48. Menominee River

Problem/ Conflict: The Upper Green Bay Basin Water Quality Management Plan identifies a water quality problem source along the portion of the Menominee River contained within the West Shore Study area. The City of Marinette is currently using conventional activated sludge treatment for its wastewater. The problem is a combined storm and sanitary sewer collection system, in which wet weather bypass is sometimes necessary to prevent flooding of the treatment plant. This results in a partial discharge of raw sewage directly into the Menominee River, and a violation of Wisconsin Pollutant Discharge Elimination System (WPDES) permit specifications.

Possible Resolution: The Upper Green Bay Basin Plan recommends that the City of Marinette should complete separation of storm and sanitary sewers by June, 1982, and improve its operation and maintenance.

49. Marinette Harbor

Problem/ Conflict: A Report Upon the Comprehensive Plan Marinette, Wisconsin includes A General Harbor Development Plan. Features of this harbor plan present potential problems/conflicts because of the nature of the proposals. Specifically, filling the South River Channel in a stretch approximately six city blocks long, deepening the harbor channel three feet along its length, establishing approximately 2000 feet of bulkhead along the river channel and turning basin, and approximately 1000 feet of retaining wall along the South Channel, all would require state and federal permits. Deepening the harbor channel will require congressional authorization.

A complicating factor is that some of the bottom sediments in the Menominee River are contaminated with arsenic and present a toxic waste disposal problem.

50. Green Island

Problem/ Conflict: Participants in the West Shore Study's Marinette County Subcommittee identified Green Island, located in Green Bay, as having potential use for scout groups. The private ownership status, however, presents a problem in this regard because of trespassing. Other suggested uses included a conservancy or sanctuary because of the presence of colony nesting birds. Related problems in this regard have been accounts of people shooting "sea" gulls, and the tenuous status of the island because of private ownership.

It was felt by some study participants that Green Island should be publicly acquired and perhaps included in the DNR's Island Park. A problem noted in this regard is the fact that the island was recently sold, and the price for the state to acquire it, if this were possible, would now be much higher. In addition, a DNR representative has indicated that a small portion of the island containing a lighthouse (1¼ acres) was recently offered to the state and turned down; and the Department would not actively be looking to acquire islands.

Possible Resolution: The Marinette County Outdoor Recreation Plan proposes that Green Island should be studied in detail for its recreational potentials and the possible inclusion of the island as a multi-use county water related recreation area.

CONCLUSION

CONCLUSION

The purpose of the Green Bay West Shore Study was to objectively and systematically establish a process for analyzing the many components which interact on the West Shore. The identification of problems and conflicts thus was able to take place, as a necessary first step toward their resolution. In this instance, the ability to "separate the pieces" was a prerequisite to a better understanding of "the whole."

The West Shore of Green Bay possesses some unique qualities; and the units of government along this resource feature, the management agency representatives serving the area, and the local residents can all find a common ground and source of "pride" in this uniqueness, and the potential opportunities which exist because of it. The similarity of problems and concerns along the West Shore should also serve to underscore the fact that it is an appropriate geographical area to examine as a single unit. As proposed resolutions or reactions to various problems/conflicts are shared, localities within the West Shore Study area may be able to assist one another, due to similar experiences that have been encountered. In addition, agency representatives can become more attuned to local desires, concerns, and needs, and local residents or officials can better understand agency perspectives through continued participation in an open and cooperative forum.

The recurring nature of certain types of problems and conflicts, as seen in a number of the specific areas discussed in this report, should help identify where future efforts should be directed along the West Shore. If a particular problem or conflict has repeatedly been identified in different locations, this probably indicates that a broader perspective needs to be obtained, and changes are needed so that similar problems/conflicts do not occur in the future.

The fact that problems and conflicts exist along the West Shore should serve as a cautionary note to all interests; that any proposed actions be thoroughly investigated before large expenditures of time, effort, and money are committed toward specific projects. Comprehensive study can provide a savings of both taxpayer dollars and private investment funds in the future, by reducing the number of proposals that would be difficult to implement due to oversights in the data gathering and analysis phase. This report therefore seeks to convey the importance of coordinated planning activities along the West Shore of Green Bay.

In part because of the desire to continue the process established for coordination and conflict resolution along the West Shore, the Wisconsin Coastal Management Program has extended funding support of the Green Bay West Shore Study for a second year. Therefore, during 1980-81, the West Shore committees will have an opportunity to continue using the assembled data base, detailed maps, and technical expertise to pursue conflict resolution efforts. Additionally, there will be an effort to achieve cooperative protection agreements for the appropriate remaining natural resource areas along the West Shore.

There is a certain urgency to establish the wise use and preservation of remaining significant natural areas and wetlands; and this need is particularly acute along the West Shore of Green Bay, where numerous interests and use-proposals are intensifying. At the same time, it is also very important to provide for the needs and desires of those who wish to utilize this area. A "balance" must thus be achieved, keeping in perspective the fact that the wetlands of the West Shore are of regional, state, and even national importance.

As noted previously, the State of Wisconsin has initiated its West Shore acquisition program. However, there are obstacles to any project of this scope and size; and even though a parcel of land may be identified within one of the designated units, that does not guarantee its acquisition. The state acquisition plan indicates that condemnation will not be used to obtain West Shore lands. When this fact is combined with escalating land prices, support for the values of private ownership, and some local sentiment opposed to public ownership and management, there are indicators that the minimum acreage objectives for state ownership along the West Shore may not be met, even though the DNR acquisition plan identifies this as being necessary. Additionally, there are a substantial number of significant natural areas, wetlands, and high quality wildlife habitats in this coastal area which are not included in the state's acquisition plan. Many of these natural areas, wetlands, and wildlife habitats should, however, continue to serve vital natural functions, which can complement and enhance the prospects of achieving the habitat management and recreation objectives outlined for the West Shore in the state plan.

The state has indicated that it is economically feasible to acquire only a limited amount of land along the West Shore. Therefore, if this area is to retain its unique natural value and character, alternative means of preservation, including private involvement, will also be necessary. To a certain extent this is already occurring as some West Shore landowners, groups and organizations, and local governmental units have strong sentiments toward the stewardship and preservation of their lands. The 1980-81 West Shore project, therefore, is seeking to address the opportunity to coordinate private preservation on the West Shore along with the public proposals, in addition to further pursuing the resolution of problems and conflicts in this area.

The second year of the study will use the established local involvement to help determine which areas along the West Shore warrant preservation, and by what means. The Bay-Lake Regional Planning Commission, working through committees, will continue to provide technical assistance toward identifying the areas along the West Shore which have physical limitations so severe that development should be precluded, or areas which because of natural merit or sentiment are favorably "disposed toward preservation." As this progresses, it will also become more apparent which West Shore areas are most capable of supporting development, or are appropriate for extensive usage (e.g. recreational activities, access, etc.). The underlying objective will be to generate and sustain needed local support, by moving toward improved management which will be of benefit to the natural resources and the general public, yet provide maximum flexibility for use of the land by private landowners.

APPENDICES

APPENDIX I

GREEN BAY WEST SHORE COMMITTEE

BROWN COUNTY

City of Green Bay
- Paul Willems, Administrative Officer
- Dale Preston, Principal Planner

Village of Howard
- Jerome Horen, Trustee
- Mary Roloff, Trustee

Town of Suamico
- Andrew Bray, Chairman
- Carol Schmitz, Appointed Citizen

Oneida Tribe of Indians
- Michael Schaepe, Coastal Planner

OCONTO COUNTY

City of Oconto
- William Bake, Mayor
- Darwin Ferris, Appointed Citizen
- Glenn Garvey, Park Board Chairman/SCS
- Gerry McDowell, Green Bay Press-Gazette/Oconto

Town of Abrams
- Gordon Falk, Supervisor

Town of Little River
- Kevin Christopherson, Supervisor
- Norman Bickel, Supervisor

Town of Little Suamico
- Robert Rost, Chairman
- Clarence Eckberg, Citizen

Town of Oconto
- Milton Ellman, Supervisor
- Richard Krueger, Citizen

Town of Pensaukee
- Lloyd Bartels, Supervisor
- Joyce Stoegbauer, Clerk
- Allen Volk, Citizen
- Bob Eckberg, Citizen

MARINETTE COUNTY

City of Marinette
Robert Bjorklund, Alderman
George Vellella, Engineer
Glenn Troester, Marinette Eagle-Star/Oconto

City of Peshtigo
Steven Cota, Engineer

Town of Grover
Adolph Staidl, Chairman

Town of Peshtigo
Delmar Fritz, Supervisor

The Green Bay West Shore Committee also benefitted from participants representing the following agencies:

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University of Wisconsin Extension Service - Oconto County
Michael Spranger

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Also invited to Participate:

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City of Marinette Engineering Department[1]
Green Bay Port Director's Office
Marinette Chamber of Commerce
U.S. Fish & Wildlife Service - Green Bay Field Office[2]
U.S. Soil Conservation Service - Marinette County[3]
University of Wisconsin - Marinette Center Faculty[4]
Wisconsin State Historical Society[5]

---

[1]Participated in Green Bay West Shore Committee meeting.

[2]Provided technical information and served on the Green Bay West Shore Committee and Brown County Subcommittee.

[3]Provided technical information via correspondence and personal communications with Bay-Lake staff.

[4]Participated in Marinette County Subcommittee meeting.

[5]Provided technical information via correspondence and use of State Historical Society records.

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Jerry Schultz, City of Marinette
Florence Spitzmacher, Town of Peshtigo
Ralph Spitzmacher, Town of Peshtigo
Bill Stuart, City of Marinette
Nancy Stuart, City of Marinette
Theodore Suave, Vice-Chairman, Marinette County Board
Bernice Wachal, City of Marinette
Lyman Wacking, City of Marinette
Rose Weyer, Milwaukee, WI (Marinette property owner)
Robert Zutter, Town of Peshtigo

BAY-LAKE CITIZENS' TASK FORCE ON COASTAL MANAGEMENT

Members of the Bay-Lake Citizens' Task Force on Coastal Management not recognized elsewhere are thanked for their efforts with regard to the Green Bay West Shore Study; especially:

Carmella Blecha
Hank Bredael
Merle Emond
Rufus Entringer
Jim Knorr
Dean Swaer
Cora Stencil Vanderperren
Bernice Wingers

APPENDIX II

12-28-78

To the Wisconsin Coastal Management Council

We, the undersigned County Board Chairmen, recognizing the many special interests and perspectives involved on the Green Bay West Shore including recreation, historical preservation, wildlife, energy production, transportation, commercial and industrial development, shore property owners, etc.; and recognizing that there is a need to look at the many special purpose plans developed for the West Shore; believe there is a need for local officials, citizens, state agencies and other interested parties to coordinate activities, to review existing plans, to identify potential conflicts and to work together to resolve these conflicts.

For the above reasons, we believe such a process should be established and that Bay-Lake Regional Planning Commission is the appropriate agency to coordinate this "Green Bay West Shore Study".

Brown County Board Chairman	Oconto County Board Chairman	Marinette County Board Chairman

12-28-78

To the Wisconsin Coastal Management Council

We, the undersigned County Board Chairmen, recognizing the many special interests and perspectives involved on the Green Bay West Shore including recreation, historical preservation, wildlife, energy production, transportation, commercial and industrial development, shore property owners, etc.; and recognizing that there is a need to look at the many special purpose plans developed for the West Shore; believe there is a need for local officials, citizens, state agencies and other interested parties to coordinate activities, to review existing plans, to identify potential conflicts and to work together to resolve these conflicts.

For the above reasons, we believe such a process should be established and that Bay-Lake Regional Planning Commission is the appropriate agency to coordinate this "Green Bay West Shore Study".

Brown County Board Chairman	Oconto County Board Chairman	Marinette County Board Chairman

APPENDIX III

GREEN BAY WEST SHORE
GENERAL ISSUES, CONCERNS, AND PROBLEMS

An important aspect of the Green Bay West Shore Study was the identification of general issues, concerns, and problems. Throughout the course of the study, local officials, area residents, and agency personnel were consulted for their viewpoints regarding the perceived status quo along the West Shore, and the most pressing needs warranting additional attention. These expressions of general issues, concerns, and problems span all of the specific problem/conflict areas identified in this report. Their resolution would require policy-level decisions, in addition to site-specific actions; and their importance must not be overlooked.

This appendix contains the issues, concerns, and problem areas identified and prioritized by participants at the final committee meeting of the 1979-1980 Green Bay West Shore Study. To a certain extent, the lists represent a culmination of the discussions conducted during the study. The final meeting was open to all previous participants in the West Shore Study as well as to others having an interest in the area. In addition, the participants had an opportunity to reflect upon some of the issues, concerns, and problem areas discussed during the course of the study.

The meeting participants were divided into three small groups, where a "Quasi" Nominal Group Technique was used to allow individuals to identify and prioritize "issues" independently of the others present. They were asked to express their own viewpoints, without imposing any restrictions on style, content, phrasing, etc. The similarities between and within certain of the lists, therefore, reflects the fact that input was obtained from the meeting participants without influencing them. The lists were then compared, and priorities subsequently established.

It should be noted that the rankings for the issues, concerns, and problem areas identified in this appendix represent the priorities as established by those present at the 1979-80 West Shore Study final committee meeting, but may not be the only things of importance along the West Shore. Other "issue" lists were developed; and the minutes from 15 meetings organized as part of the Green Bay West Shore Study, plus minutes from the Bay-Lake Citizens' Task Force on Coastal Management, reflect both similar and additional concerns of importance. Nevertheless, the lists which follow can probably serve as a good representative sampling of the issues, concerns, and problems which are most apparent along the West Shore of Green Bay.

GREEN BAY WEST SHORE STUDY
1979-80 PROJECT FINAL MEETING

IDENTIFICATION AND PRIORITIZATION OF ISSUES,
CONCERNS, AND PROBLEM AREAS*

July 31, 1980

Group I

1. -Water quality - pollution

2. -Land use conflict:wetlands/industrial development; disregard for laws protecting public interest (illegal activities)

3. (tie) -To increase understanding of the value of wetlands

-Preserve natural resources

4. -Preserve land for future generations for hunting, fishing, recreation, etc.

5. (tie) -Upland erosion prevention/controls

-Dredging and disposal activities

6. (tie) -Private vs. public ownership of natural areas and management conflicts

-Put DNR land purchases to good use

-Recreational facilities: boat landings, park areas, etc.

-Need for improving existing sanitary facilities

*Number 1 denotes the highest priority

Group II

1. -Development occurring without aid of local planning and zoning

2. -Preservation of prime agricultural land

3. -Preservation of significant natural areas and historic sites

4. (tie) -Impact of future industry

-Public relations

5. (tie) -Nonpoint source pollution of Bay and its tributaries

-Public access to shore areas for multi-purpose recreational uses

6. -Financial help for "forced" sewer projects

7. (tie) -Planned development of rural areas

-Development of recreation facilities for residents and tourists (stimulate economy)

Group III

1. -Appropriate land use

2. -Tax incentive for wetland preservation

3. -Better land use control - acquisition system

4. (tie) -Air and water quality (many listed concerns fit this)

-Pollution on the Bay

5. (tie) -Dredge disposal

-Need for local land use planning

-Lead shot vs. steel shot

-Identify recreational opportunities

6. -Acquisition

7. (tie) -Put DNR purchased land to a good use

-Adequate public access to public lands

-Wanton development - negative

-Preservation from residential development for quality wetlands

-Conflict commercial/industrial development

-Future hunting problems and hunting property land

Full Committee**

1. -Water quality - pollution

2. -Appropriate land use

3. -Land use conflict:wetlands/industrial development; disregard for laws protecting public interest (illegal activities)

4. -Preservation of significant natural areas and historic sites

5. (tie) -Development occurring without aid of local planning and zoning

-Better land use control - acquisition system

6. (tie) -Preservation of prime agricultural land

-Tax incentive for wetland preservation

7. -To increase understanding of the value of wetlands

8. -Preserve natural resources

**Prioritizing the top three issues/concerns/problem areas raised by each of the Small Groups I-III (Four "issues" were included from Group I because of a tie).

APPENDIX IV

SIX YEAR HIGHWAY IMPROVEMENT PROGRAM 1980 - 1985[1]

Wisconsin Department of Transportation, 1979

The Six Year Highway Improvement Program 1980 - 1985, describes the Wisconsin Department of Transportation's recommended six-year highway investment program for the State Trunk Highway (STH) System. The first two years of the program are consistent with the approved budget for the 1979-81 biennium. Accomplishment of the entire program depends on the funding to be provided in the subsequent two bienniums.

The recommended six-year program is a specific schedule of highway-related projects for the 1980-85 period. In the Department's judgement, the recommended highway program provides the best possible balance between the many competing needs for highway improvement in light of revenue constraints and the social, economic and environmental impacts of various program alternatives. The Department recognizes that there are important interrelationships between highway improvements and other forms of transportation and has sought to address many of these interrelationships. Future six-year program documents will include proposed investments for other modes (p. V-1).

The report presents:

- -The program development process
- -Trends and current highway conditions and revenues
- -Program choices and tradeoffs
- -A detailed project listing arranged by Transportation District
- -Relationships between the proposed highway improvements and various other transportation modes
- -A discussion of Federal Aid
- -Major Project Deficiency Data

The table on the following page lists the highway projects within the West Shore Study Area; and the accompanying map shows the study area in relation to State Transportation District 3 and its Six Year Highway Program.

In the six-year programming process, major projects are defined according to definitions developed for past biennial budgets:

- -the continuous relocation of a highway segment 2.5 miles or more in length
- -the addition of a continuous traffic lane 2.5 miles or more in length

Additional projects which are costly, have significant impacts, or which may be controversial also are generally included within the Major Project Program Area (p. V-1).

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[1] This summary was prepared by the Bay-Lake Regional Planning Commission in April, 1980, for use in the Green Bay West Shore Study. It is based largely on Construction Program excerpts from the Six Year Highway Improvement Program, 1980-1985, as they apply to the West Shore Study area. Page numbers in parentheses indicate source location in the full document.

TRANSPORTATION DISTRICT 3
SIX YEAR CONSTRUCTION PROGRAM*
(West Shore Study Area Only, pp. 3-11)

YEAR	IDENTIFICATION NUMBER	COUNTY	HIGHWAY NUMBER	DESCRIPTION	SECTION LENGTH MILES	R/W REQUIRED	COST IN 1980-$
1980	00030599	BROWN	I 43	South County Line - USH 41 Major Project	10.50	Yes	12,631
1981	00030599	BROWN	I 43	South County Line - USH 41 Major Project	11.86	Yes	14,257
1983	00033818	MARINETTE	41	Peshtigo--Marinette Reconstruction	4.70		1,954
1984	00039512	BROWN	41	Suamico-North County Line Minor Recondition	2.00		196
	00034212	OCONTO	41	South County Line-Abrams Northbound Minor Recondition	7.50		734

ADDITIONAL CONSTRUCTION CANDIDATE PROJECTS
(Selected needs not funded in Six Year Program)

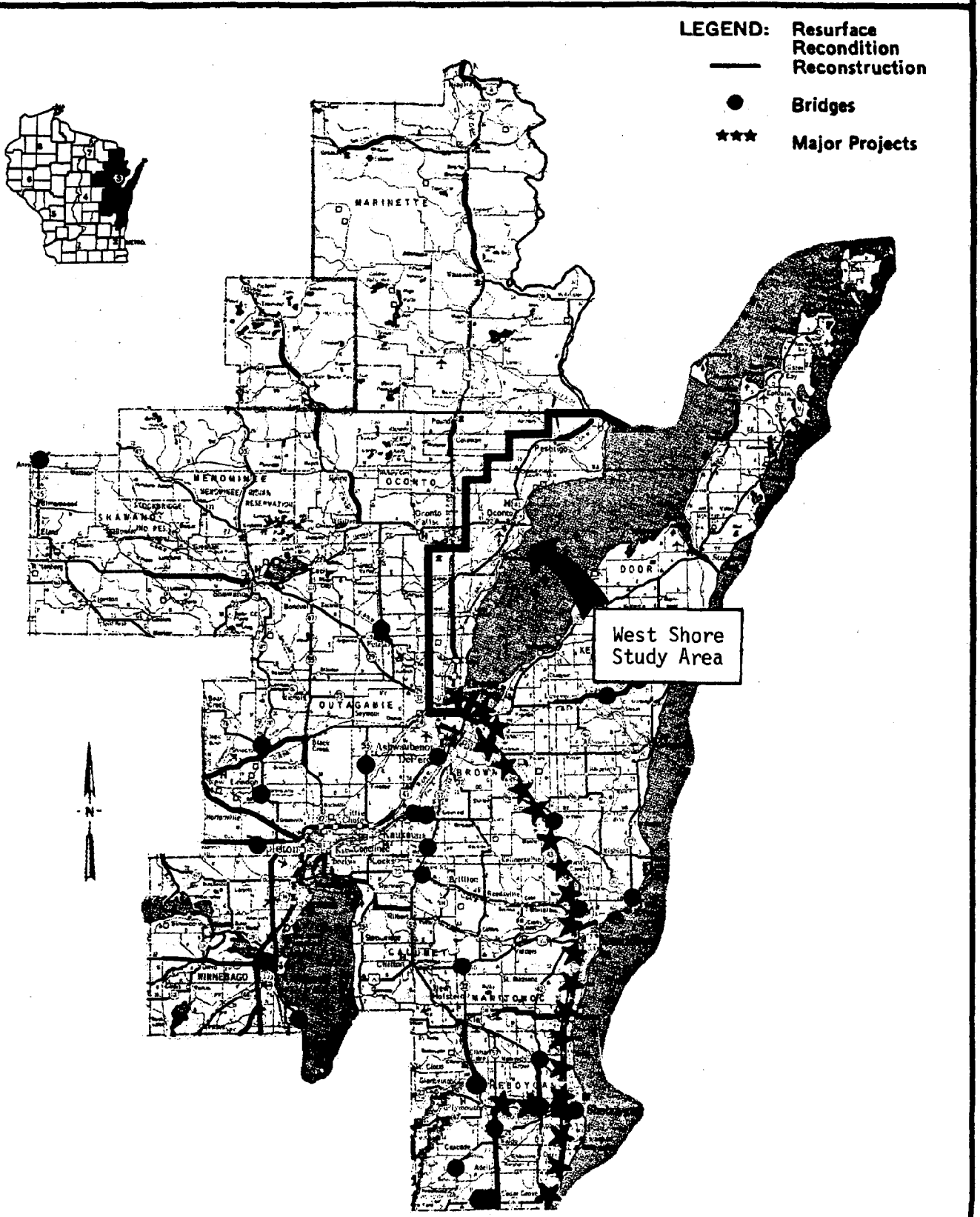
**BROWN	STH 29	Walnut Street Bridge over Fox River (Green Bay)	0.0
**BROWN	USH 141	Main Street Bridge over Fox River (Green Bay)	0.0
BROWN	STH 29	Shawano County Line-Green Bay	9.0

* Cost in 1980 Dollars X 1000 = (Construction Program + 15%); R/W REQ = Yes indicates projects that require right-of-way.
**These are just outside of the study area, but may have an important relationship to Green Bay port activities.

Figure A-5

TRANSPORTATION DISTRICT 3
SIX YEAR HIGHWAY PROGRAM

DATE: 10/22/79



Interstate Highway 43 in Brown County is the only major project within the West Shore Study Area recommended during the Six Year Highway Program. When the Tower Drive Bridge completes the freeway link between the East Shore and the West Shore of Green Bay over the mouth of the Fox River, there will potentially be some major impacts as businesses and industries on the City of Green Bay's east side are made easily accessible to individuals wishing to live in the rural/suburban areas of the West Shore. Likewise, the West Shore will be made much more accessible for the many interests which will seek to utilize it.

Minor reconditioning consists of resurfacing plus widening of pavement and/or shoulder repaving. Reconstruction means total reconstruction to improve maintainability, geometrics and traffic service, generally on existing alignment and generally requiring additional right-of-way (Program Highlights, p. 4). Projects falling into these two categories within the West Shore Study Area are the minor reconditioning of State Highway 41 between Suamico and Abrams, and the reconstruction of STH 41 between Peshtigo and Marinette.

The reconstruction of STH 41 between Peshtigo and Marinette may have important impacts in the northern part of the West Shore Study Area as this segment is converted to four lanes. Traffic movements and development patterns are likely to be affected.

In the candidate project category (not funded in the Six Year Program), improvements to State Highway 29 in the Green Bay vicinity could significantly improve accessibility and, in turn, stimulate regional economic growth and increase environmental impacts (p. V-12). These impacts, however, would likely be felt only on the southwestern fringe of the West Shore Study Area, and not be closely tied to most West Shore associated issues. The Green Bay bridge replacements on the other hand (see table), could have an important impact on Green Bay port activities, as ships carrying a large portion of port bulk commodities must navigate upstream under these structures.

BIBLIOGRAPHY

BIBLIOGRAPHY

Archeological Survey of the Green Bay Coastal Corridor (2 volumes), Great Lakes Archeological Research Center, Inc., 1980.

Atlas and Plat Book, Oconto County, Wisconsin, Rockford Map Publishers, Inc., 1978.

Bay-Lake Regional Zoning Study (unpublished), Bay-Lake Regional Planning Commission, 1979.

"Biological Production in Green Bay Coastal Marshes," Project R/GB-6, Harris, H.J., and Johnson, W.J., University of Wisconsin Sea Grant Program, 1980.

Brown County Comprehensive Plan Continuing Planning Program, Barton-Aschman Associates, Inc., 1976.

Brown County Marina, Brown County Planning Commission, 1979.

Brown County Regional Planning Program, Regional Planning Commission of Brown County, 1968.

Brown County Sewage and Solid Waste Plan, Robert E. Lee and Associates, 1972.

Brown County Water Plan Evaluation and Update A Supplement to the Brown County Water Plan, Brown County Planning Commission, 1979.

Brown County Water Plan Update - 1977, Donohue and Associates, Inc., 1977.

Brown County Water Plan Final Report, Donohue and Associates, Inc., 1976.

Brown County Wisconsin Atlas and Plat Book, Brown County 4-H Leaders Association, 1978.

Chapter XVI Zoning Ordinance, City of Oconto, As amended, 1955.

Chapter 22 Brown County Code - Brown County Shoreland-Floodplain Protection Ordinance, Brown County Zoning Administrator's Office and Corporation Council, As amended, 1977.

Comprehensive Plan for Peshtigo, Wisconsin (6 parts), Max Anderson Associates, 1968.

A Comprehensive Plan for the Town of Hobart, Wisconsin, Brown County Planning Commission et al, 1977.

Drainage-Area Data for Wisconsin Streams, United States Department of the Interior Geological Survey, 1972.

Environmentally Significant Areas in Brown County, Wisconsin, Brown County Planning Commission, 1979.

Executive Summary Water Pollution Studies Fox River Valley, Wisconsin, Fox Valley Water Quality Planning Agency, 1978.

Existing Ownership Inventory, 1975, Bay-Lake Regional Planning Commission, 1978.

Facilities Plan for Little Suamico Sanitary District No. 1 Wastewater Collection and Treatment System, Foth & Van Dyke and Associates, Inc., 1979.

Facilities Plan for the City of Oconto Combined Sewer Separation Project, Foth & Van Dyke and Associates, Inc., 1979.

Facilities Plan Update for Waste Water Collection and Treatment System and Water Supply and Distribution System for the Suamico Sanitary District, Brown County, Wisconsin, Foth & Van Dyke and Associates, Inc., 1978.

Final Environmental Impact Statement Relating to the Operation and Maintenance of the Fox River, Wisconsin Navigation Project, U.S. Army Corps of Engineers, 1978.

Fish and Wildlife Habitat Study Wisconsin Great Lakes Shoreline, Wisconsin Department of Natural Resources, 1976.

Flood Plain Management Community Status Reports, Wisconsin Department of Natural Resources, 1980.

"Geologic Investigations Map I-466," U.S. Geological Survey.

Green Bay Estuary Study, United States Department of the Interior, Fish and Wildlife Service, 1980.

Green Bay West Shores Master Plan Concept Element, Wisconsin Department of Natural Resources, 1979.

The Green Bay Watershed Past/Present/Future, University of Wisconsin Sea Grant, 1976.

Green Bay Wisconsin Comprehensive Plan, Brown County Planning Commission, 1979.

Green Bay's Coastal Wetlands - A Picture of Dynamic Change, Harris, Bosley, and Rosnik, 197_.

Guide to Good Land Use Oconto Area Oconto County, U.S. Department of Agriculture, Soil Conservation Service, 1972.

Highway 41 Marinette-Peshtigo, Bay-Lake Regional Planning Commission, 1978.

Historic and Archeological Sites of the West Shore Study Area (unpublished), Bay-Lake Regional Planning Commission, 1979.

Hydrologic Investigation Atlases HA-431, 1968; HA-432, 1973; and HA-470, 1973; U.S. Geological Survey.

Marinette County Atlas and Plat Book, Rockford Map Publishers, Inc., 1976.

Marinette County Outdoor Recreation Plan, Bay-Lake Regional Planning Commission, 1977.

Marinette County Sewer and Water Plan, Max Anderson Associates, 1971.

Marinette County Shoreland Zoning Ordinance No. 24, Marinette County Board of Supervisors, As amended, 1969.

Natural Area Inventory Wisconsin Great Lakes Coast, Wisconsin Department of Natural Resources, 1976.

Natural Area Inventory Wisconsin Great Lakes Coast (Revised Draft), Wisconsin Department of Natural Resources, 1980.

No. 533 - Zoning Ordinance City of Marinette, Wisconsin, City Council of the City of Marinette, Wisconsin, As amended, 1978.

NWTI Duck Creek Parkway Project, Northeast Wisconsin Technical Institute, 1975.

Oconto County Critical Resource Information Booklet, Environmental Monitoring and Data Acquisition Group, Institute for Environmental Studies, University of Wisconsin, 1975.

Oconto County Outdoor Recreation Plan, University of Wisconsin-Extension, 1978.

Oconto County Revised Zoning Ordinance, Oconto County Planning and Zoning Committee, 1980.

Oconto County Shoreland Protection Ordinance, Oconto County Planning and Zoning Committee, As amended, 1975.

Oconto Harbor Study, Warzyn Engineering, Inc., 1979.

Oneida Coastal Management Plan (Draft), Oneida Tribe of Indians, 1979.

Oneida Nation Comprehensive Outdoor Recreation Plan, Ecoplans Ltd and Oneida Tribe of Indians, 1979.

Oneida Nation Comprehensive Plan (Draft), Oneida Tribe of Indians, 1979.

Open Space and Outdoor Recreation Plan, Brown County Planning Commission, 1971.

Open Space and Outdoor Recreation Plan (Final Review Draft), Brown County Planning Commission, 1977.

Ordinance Amending July 2, 1973, Zoning Ordinance of the Town of Grover, Marinette County, Wisconsin, Town Board of the Town of Grover, 1977.

An Outdoor Recreation Plan for the City of Oconto, Wisconsin, City of Oconto Engineering Department, 1975.

An Outdoor Recreation Plan for the City of Oconto, Wisconsin (Draft), Oconto City Park Board, 1980.

Overall Economic Development Plan 1979-81, Oneida Tribe of Indians, 1979.

Pleistocene of Part of Northeastern Wisconsin, F.T. Thwaites, Bulletin of the Geological Society of America, Vol. 54: 81-104, January 1, 1943.

Population of Minor Civil Divisions in the Bay-Lake Region, Bay-Lake Regional Planning Commission, 1979.

Port of Green Bay Marina-Related Land Use Study, Donohue & Associates, Inc., 1979.

Reconnaissance Soil Survey of Northeastern Wisconsin, Whitson et al, Wisconsin Geological and Natural History Survey, 1916.

"Red Arrow Park Master Plan" (Unpublished), Sanborn and Associates, 1980.

Regional Land Use, Bay-Lake Regional Planning Commission, 1978.

A Report Upon the Comprehensive Plan Marinette, Wisconsin, Harland Bartholomew and Associates, 1972.

Resources Conservation Program Marinette County Soil and Water Conservation District, SWCD Board of Supervisors et al, 1977.

Resource Conservation Program - Oconto County Soil and Water Conservation District, U.S. Soil Conservation Service and University of Wisconsin-Extension, 1980.

Sewer and Water Plan Marinette County, Wisconsin, Max Anderson Associates, 1971.

Sewer and Water Plan Oconto County, Wisconsin, Max Anderson Associates, 1971.

Six Year Highway Improvement Program 1980-1985, Wisconsin Department of Transportation, 1979.

Snowmobile Facility Plan Marinette County, University of Wisconsin-Extension, 1979.

"Soil Survey Interpretations and Soil Interpretations Record (Sheets)," U.S. Department of Agriculture, Soil Conservation Service, 1971-1979.

Soil Survey of Brown County, Wisconsin, U.S. Department of Agriculture, Soil Conservation Service, 1974.

Solid Waste Management Plan for Marinette County, Wisconsin 1980, Foth & Van Dyke and Associates, Inc., 1980.

Solid Waste Study Oconto County Wisconsin, University of Wisconsin-Extension, 1971.

State of Wisconsin Coastal Management Program and Final Environmental Impact Analysis, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management, 1978.

Sub-Watershed File, Fox Valley Water Quality Planning Agency, 1978.

Technical Memorandum A Contribution to the Surficial Geology of Brown County, Wisconsin, Brown County Planning Commission, 1979.

Town of Hobart Zoning Ordinance, Town of Hobart Citizens Planning and Zoning Advisory Committee, Town of Hobart Board, and Brown County Planning Commission, 1975.

Town of Suamico, Comprehensive Plan, Brown County Planning Commission, 1969.

Town of Suamico Zoning Ordinance, Brown County Regional Planning Commission Staff and the Suamico Town Board, As amended, 1971.

The Upper Green Bay Basin Water Quality Management Plan, Wisconsin Department of Natural Resources, 1980.

Village of Howard Zoning Ordinance, Village Board of the Village of Howard, As amended, 1979.

Water Quality Management Basin Plan for the Rivers of the West Shore of Green Bay, Wisconsin Department of Natural Resources, 1975.

Water Quality Management Plan Fox River Valley Wisconsin, Fox Valley Water Quality Planning Agency, 1979.

West Shore Wildlands (brochure), Brown County Conservation Alliance.

West Shore Study Area Soil Legend (Unpublished), Bay-Lake Regional Planning Commission, 1980.

Wisconsin Coastal Atlas, Wisconsin Coastal Management Program, 1977.

Wisconsin Geological and Natural History Survey "Open File" Maps (unpublished), Wisconsin Geological and Natural History Survey, Madison, Wisconsin.

Wisconsin Historic Preservation Department Records (unpublished), Wisconsin State Historical Society, Madison, Wisconsin.

"Wisconsin's Program for Preservation of Natural Areas and Other Minimum-Management Lands," Scientific Areas Preservation Council, Wisconsin Department of Natural Resources, 1974.

Zoning Code Chapter 13, Municipal Code of the City of Green Bay, Wisconsin, City of Green Bay City Council, As revised, 1980.

Zoning Ordinance City of Peshtigo, Wisconsin, Max Anderson Associates and Common Council, 1968.

Zoning Ordinance of Town of Peshtigo, Zoning, Planning, and Park Commission, 1971.

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