WHITE LAKE MANAGEMENT PLAN

November 1996

Prepared by the

East Central Wisconsin Regional Planning Commission

EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION

Norman Weiss, Chair
James Schuette, Vice-Chair
Kenneth J. Theine, Secretary-Treasurer

COMMISSION MEMBERS

CALUMET COUNTY

Vern Gonzo
Wilma Springer
Clarence Wolf

OUTAGAMIE COUNTY

James Schuette
Marvin Fox
Donald De Groot
Richard De Broux
Alfred Krause

WAUSHARA COUNTY

George Sorenson
(Yvonne Feavel, Alt.)
Norman Weiss
Lester Van Loon

MARQUETTE COUNTY

Claire Alexander
Walter M. Cacic
Thomas Brady

SHAWANO COUNTY

Herbert Tauchen
Clarence Natzke
M. Eugene Zeuske

WINNEBAGO COUNTY

Joseph Maehl
Jack Steinhilber
William Castle, Jr.
(William Frueh, Alt.)
Marigen Carpenter
Thom Ciske

MENOMINEE COUNTY

Randy Reiter
Roger F. Mosher
Bruce Wilber, Sr.

WAUPACA COUNTY

Duane Brown
LaVerne Grunwald
Henry J. Steenbock

ABSTRACT

TITLE:	WHITE LAKE MANAGEMENT PLAN
AUTHORS:	Julie A. Kautza, Associate Planner Harlan P. Kiesow, Assistant Director Fred Scharnke, Principal Planner
SUBJECT:	Lake management plan for the White Lake Watershed
DATE:	November 1996
LOCAL PLANNING AGENCY:	East Central Wisconsin Regional Planning Commission
SOURCE OF COPIES:	Alan Tauchen, Chairman Town of Hartland W3485 E. Slab City Road Bonduel, WI 54107 (715) 758-8493 Delmar Zernicke, Chairman Town of Lessor W4305 Landstad Road Bonduel, WI 54107 (715) 758-8446

This report describes the existing conditions and offers strategies and recommendations to guide future development in the White Lake Watershed.

CONTENTS

EXECUTIVE SUMMARY

BACKGROUND

The White Lake watershed is located in the southwestern portion of the Town of Hartland and the northwestern portion of the Town of Lessor in Shawano County. Despite the fact that a state trunk highway, STH 47, runs north to south through the eastern portion of the White Lake watershed, White Lake has remained relatively undeveloped until very recently.

In the last year, however, the White Lake area has been experiencing increased residential development pressure. Recent platting of a subdivision on the northeast shore of White Lake has already resulted in the construction of three lakefront homes and a developer is pursuing the development of several other parcels. The soils along the perimeter of White Lake will not percolate. Consequently, only holding tank permits have been issued for this residential development.

With the assistance of East Central Wisconsin Regional Planning Commission (ECWRPC) and Shawano County Extension Office, the towns applied for and received a Wisconsin Lake Management Planning Project Grant from the Wisconsin Department of Natural Resources. Upon receiving the grant award, the towns of Hartland and Lessor contracted with ECWRPC for the preparation of a lake management plan for the White Lake Watershed.

The first step in the planning process was soliciting input from all town residents. ECWRPC conducted a needs identification session on August 7, 1995. Attended by approximately 60 town residents and property owners, participants identified and prioritized needs and strengths of the White Lake area. The results of this session are presented in Appendix A.

During this meeting, all town residents and property owners were invited to serve on the White Lake Core Committee. This committee would be responsible for following the Lake Management Plan through the planning process. Approximately 25 individuals volunteered to be members of the White Lake Core Committee. This committee identified common goals and objectives and reviewed a land use and development strategy and concept plan prepared by East Central.

During the planning process, however, it became necessary to work with a smaller, more manageable group. Therefore, a smaller group of the original White Lake Core Committee was formed. This group was comprised of several lakefront property owners, town board chairpersons, a realtor, and interested town residents. This group worked with Mike Dresen from UW-Extension on the preparation of an ordinance. The result was proposed amendments to the Shawano County Shoreland Zoning District. These amendments were subsequently endorsed by the towns of Hartland and Lessor and adopted by the Shawano County Board (Appendix B).

OVERVIEW

The White Lake study area includes Sections 32 and 33 in the southern portion of the Town of Hartland and Sections 4 and 5 in the northern portion of the Town of Lessor in Shawano County. The estimated 1990 population for the study area is 71. The White Lake study area is also comprised of approximately 26 homes.

Open space land uses dominate the study area. Only 6.76 percent of the study area is developed. More than 50 percent of the land is cropland, and 29 percent is woodlands. Water areas comprise about six percent of the total acreage and vacant/undeveloped land uses, approximately five percent.

The White Lake watershed is located in the southeastern portion of the study area. It is 647 acres in size and is well defined except for the northern boundary adjacent to an unnamed tributary to the Shioc river. The principal land uses within the watershed are cropland, with 41.68 percent of the total acres and water areas, with 25.53 percent. Woodlands comprise almost 20 percent of the total acreage and vacant/undeveloped land uses, approximately eight percent. All other land uses (single family residential, roads and public/institutional) comprise the remaining 5.59 percent.

The emphasis of the lake management plan is on the preservation of rural character, promotion of planned development and protection of White Lake as an environmental resource. It incorporates the goals and objectives identified through the planning process. The plan also provides an inventory of the physical characteristics of the White Lake area and proposes strategies which address the issues raised by the White Lake Core Committee during the planning process.

Development concepts have been prepared which offer two development alternatives: conventional lakeshore development and planned unit development. A future land use plan is also included within this document. The plan is intended to serve as a guide for future development in the towns of Hartland and Lessor.

PHYSICAL SETTING

White Lake is a 190 acre lake located in southeastern Shawano County. The lake was formed from a large ice block buried in glacial drift. As the block melted, the overlying material settled forming the lake basin. The lake is part of the Shioc River watershed within the Wolf River Basin. The lakeshed is 647 acres in size and is well defined except for the northern boundary adjacent to an unnamed tributary to the Shioc River. The approximate ratio of land to water is four to one. The larger the ratio, the more the impact on the lake through nutrient, pesticide and sediment runoff.

The bedrock geology of the lakeshed consists of a thin layer of dolomite overlaying sandstone. These rock formations are covered with glacial drift on the uplands and alluvial deposits in the valleys. These deposits also serve as the principal water-bearing formations. The groundwater level is generally not far below the surface. White Lake is a seepage lake, meaning it has no continuous inlet or outlet stream. With seepage lakes, the influence of the bedrock geology and soil type on lake fertility is evident. White Lake has clear water, a high conductivity and is slightly alkaline.

The Onaway-Solona Group, which consists of a mixture of well drained and poorly drained loamy soils, is the predominant soil series for the area. Erosion and wetness are primary hazards with these soils. Most of these soils are best suited for growing cultivated crops except for steep slope areas which are best for pastureland or woodland.

The lake has 2.9 miles of shoreland. The immediate shore, which is affected by water fluctuation, has vegetative cover of wetland meadow and marsh with some shrub and conifer. The littoral zone, which covers the shoreward area of the lake less than five feet in depth, has a lake bottom of muck and has significant emergent vegetation. The center bottom area of the lake is covered with marl and some sand. The maximum depth of the lake is 11 feet with 35 percent of the lake less than three feet deep.

The shallow depth and a lack of major artesian springs subjects the lake to chronic low oxygen levels and winterkill of fish species. This condition has limited the fishery to tolerant species such as northern pike, yellow perch and bullheads. Bullheads are abundant and moderate levels of northern pike and yellow perch are found. The bullheads may be competing for food sources with perch, thus limiting perch numbers. Pumpkinseed sunfish are common but are stunted and do not provide a fishery. Other species present are largemouth bass, black crappie, white sucker and golden shiner. In the past, fish have been restocked after major winterkills with the last stocking in 1986 with northern pike fry. Waterfowl nest and use the lake for migration resting.

DEVELOPMENT CONDITIONS

The natural resource base is a major determinant of potential physical and economic uses of the land. The preservation and management of these resources is important in sustaining economic uses of the land as well as maintaining the quality of life enjoyed by town residents. Certain environmental characteristics indicate the suitability of lands to support various types of development. Floodplains, wetlands and soil characteristics are among the physical features that determine suitability of land uses.

FLOODPLAIN

Areas susceptible to flooding are considered unsuitable for development due to potential health risks and property damage. Revised in 1984, the Flood Insurance Rate Map for the unincorporated portions of Shawano County identifies extensive areas north of the White Lake watershed and in the southwest corner of the study area as areas subject to flooding. However within the lakeshed, there is no mapped floodplain and therefore no known flooding problem. High lake levels and the potential for flooding may be mitigated by a small intermittent stream on the northeast corner of the lake which drains to a wetland outside the lakeshed.

WETLANDS

Wetlands perform several important environmental functions including flood control, water quality improvement, groundwater recharge, as well as providing habitat for fish and other wildlife.

A complex set of local, state and federal regulations places limitations on the development and use of wetlands. The Shoreland/Wetland Zoning Ordinance adopted by Shawano County regulates shoreland use and development within 300 feet of navigable waters and 1,000 feet of lakes. The Department of Natural Resources (DNR) regulates the placement of structures and other alterations below the ordinary high water mark of navigable streams and lakes. The Corps of Engineers has authority over the placement of fill materials in virtually all wetlands. The U.S. Department of Agriculture incorporates wetland preservation criteria into its crop price support programs. Prior to placing fill or altering wetland resources, the appropriate agencies should be contacted to receive authorization.

Figure 2 shows the location of Wisconsin Department of Natural Resources (WDNR) mapped wetlands within the lakeshed. Wetlands are associated with much of the lakeshore and littoral zone. A large wetland is present on the southeast corner of the lake and a meandering wetland on the north side of the lake connects to a tributary of the Shioc River. Wetlands are not suitable for development.

SOILS

Soils provide the physical base for development within the study area. Knowledge of the potentials and limitations of soil types is necessary when considering construction of buildings, installation of utilities, or other uses of land. Problems that limit development on certain soils include soil slumping, compaction, erosion, and high water tables. Severe soil limitations do not always mean a building site cannot be developed, but rather that more expensive construction measures may have to be taken to prevent damage to the land or structures. Also, costs for providing public utilities will generally be less for development that occurs on suitable soils.

The soils of the area, while varied, show significant limitations for residential development. Soil limitations for septic systems as shown in Figure 3 are present throughout the lakeshed with the exception of the hillside on the west edge of the lake. Limitations for building foundations are also present throughout the area as shown in Figure 4. While these limitations do not prevent development, they indicate that special considerations for development are needed and that additional development costs can be anticipated. An additional factor which should be considered for future use of the lakeshed is the presence of prime agricultural soils (Figure 5).

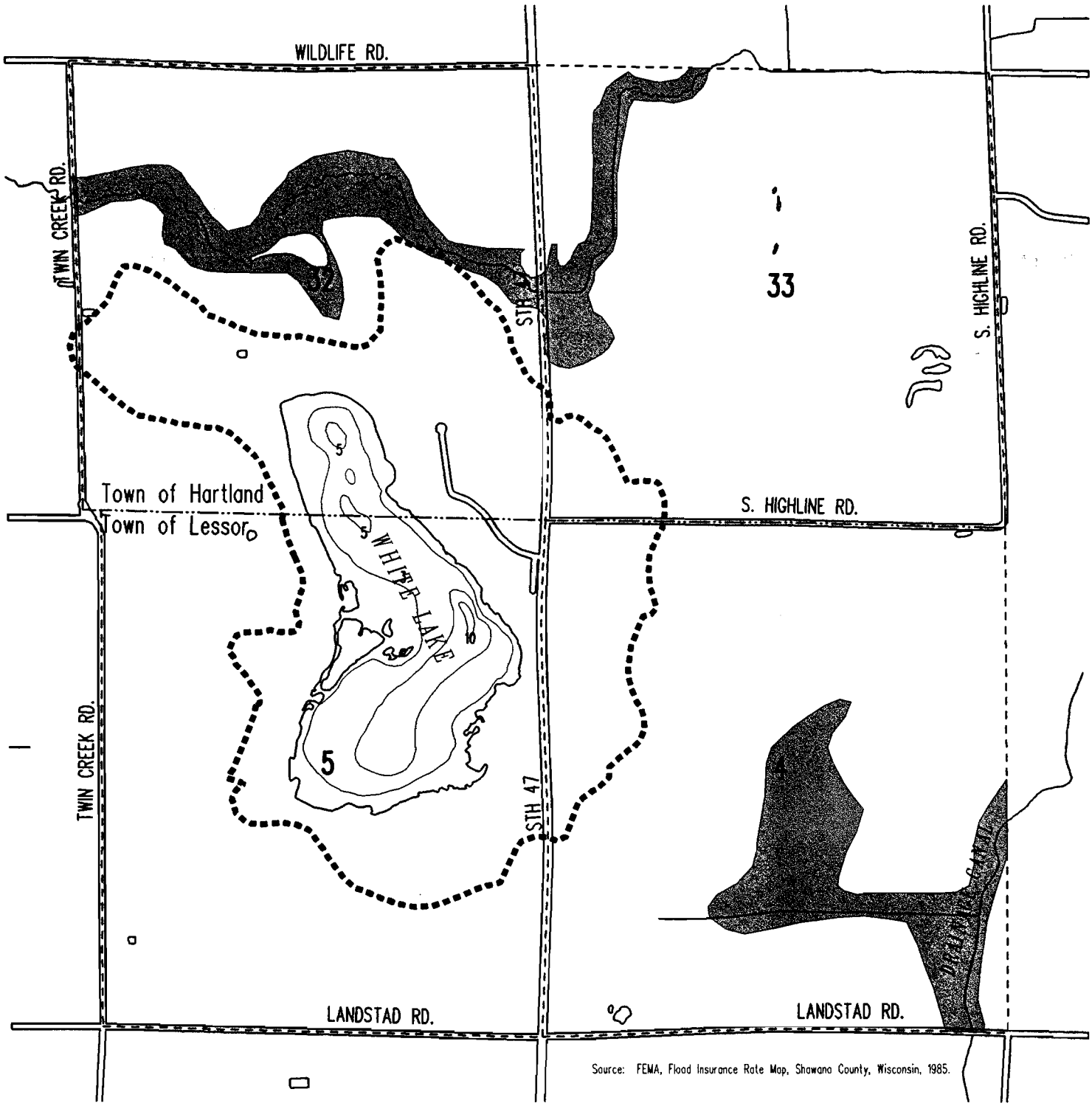
Slope conditions are an additional consideration for development in the lakeshed. There are a number of areas where severe slopes (over 12 percent) are present (Figure 6). Due to the nature of the soils, these areas should not be disturbed and should remain in a natural vegetative condition. Other areas have moderate slopes (6 - 12 percent) where special development considerations should be made to insure slope stability and erosion prevention. Erosion which will cause sedimentation and nutrient increases is a significant issue because of the characteristics of the lake with no means to "flush" the lake with inflow and outflow.

LAKE LITTORAL ZONE

A final development consideration involves the lake littoral zone which primarily consists of muck and emergent vegetation. Any construction in this zone such as significant piers or breakwalls would be difficult and should be avoided. In addition, environmental disturbances such as dredging, installation of sand blankets for swimming and weed control are not recommended.

Figure 1

WHITE LAKE AREA
FLOODPLAIN AREAS



Source: FEMA, Flood Insurance Rate Map, Shawano County, Wisconsin, 1985.

Shaded areas indicate lands that are within the 100 year floodplain as designated on the Flood Insurance Rate Map for the unincorporated areas of Shawano County. Development within mapped floodplain areas is regulated by the Shawano County Floodplain Zoning Ordinance.

- SECTION LINE
- TOWN BOUNDARY
- WATERSHED BOUNDARY

NORTH

0 1000 2000

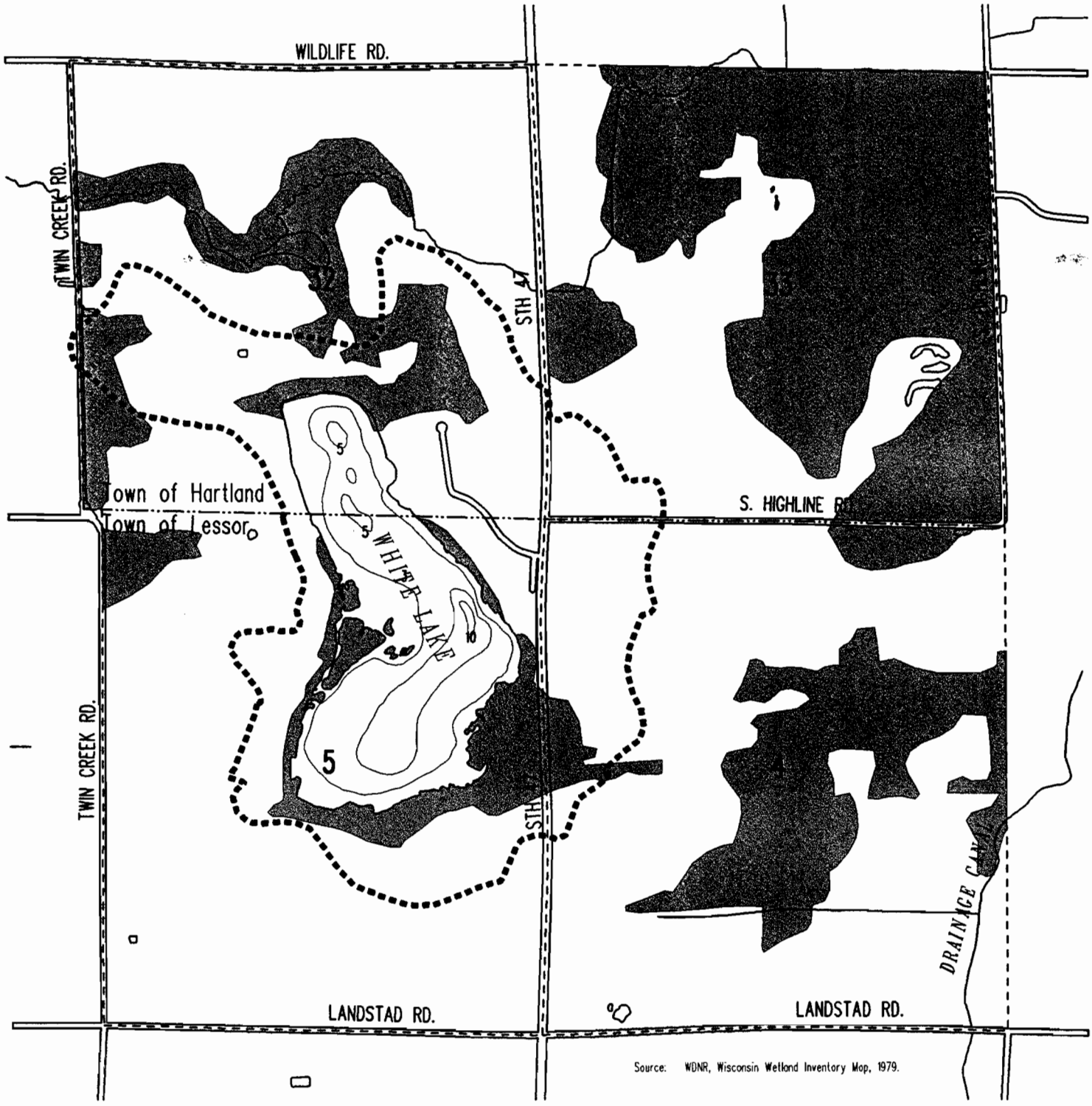
SCALE IN FEET

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - AUGUST 1996

Figure 2

WHITE LAKE AREA
WETLAND AREAS



Source: WDNR, Wisconsin Wetland Inventory Map, 1979.

This map indicates wetlands that have been designated on the Wisconsin Department of Natural Resources' Wisconsin Wetland Inventory Maps. Wetland areas five acres or greater are regulated under the Shawano County Shoreland/Wetland Zoning Ordinance. This map does not reflect all areas that may be considered wetlands by the U.S. Department of Agriculture, or all wetlands that may be under the jurisdiction of the U. S. Army Corps of Engineers.

- SECTION LINE
- TOWN BOUNDARY
- WATERSHED BOUNDARY

NORTH

0 1000 2000

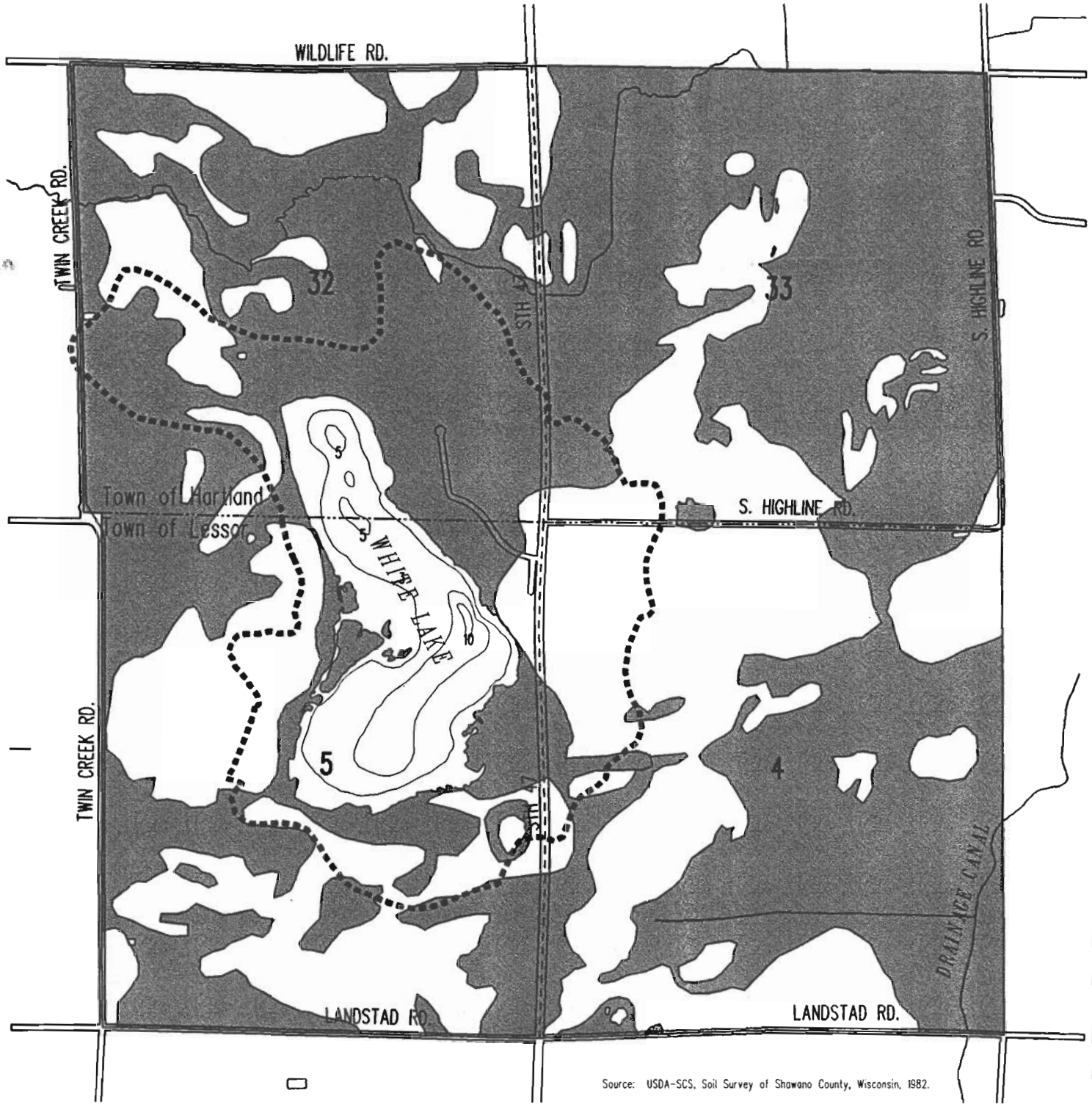
SCALE IN FEET

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION – AUGUST 1996

Figure 3

SOIL LIMITATIONS FOR SEPTIC TANK ABSORPTION FIELDS



Source: USDA-SCS, Soil Survey of Shawano County, Wisconsin, 1982.

Shaded areas indicate soil types which have severe limitations for septic tank absorption fields. Among the criteria considered by the Soil Conservation Service in establishing a "severe" rating are soil wetness, permeability, susceptibility to flooding, slope steepness and depth to rock. A "severe" limitation for septic tank absorption fields indicates that one or more soil properties or site features are so unfavorable as to impair the operation of the absorption field and/or pose a risk of contaminating surface or groundwater. In some instances, these limitations may be overcome by installing an "alternate" on-site waste disposal system (such as a mound system or in-ground pressure system), or a holding tank.

- - - SECTION LINE
—·— TOWN BOUNDARY
▪▪▪ WATERSHED BOUNDARY

NORTH

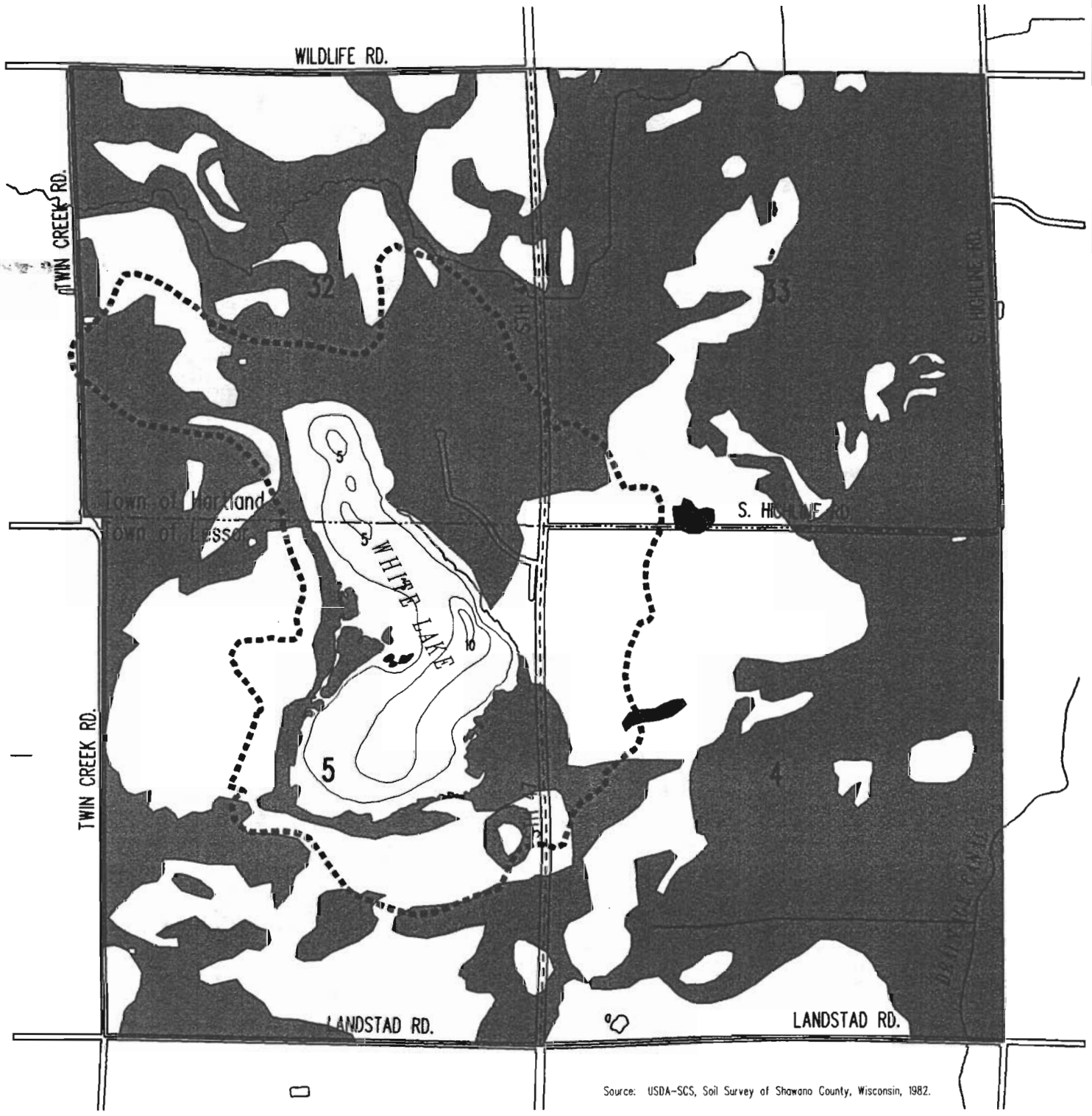
0 1000 2000

SCALE IN FEET

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - AUGUST 1996

Figure 4

SOIL LIMITATIONS FOR BUILDING SITE DEVELOPMENT



Source: USDA-SCS, Soil Survey of Shawano County, Wisconsin, 1982.

Shaded areas indicate soil types which have severe limitations for buildings with basements. Among the criteria considered by the Soil Conservation Service in establishing a "severe" rating are soil wetness, shrink-swell potential, bearing strength, susceptibility to flooding, depth to rock, slope steepness, and frost action. A "severe" limitation for building site development indicates that one or more soil properties or site features are so unfavorable or difficult to overcome that a major increase in construction effort, special design, or intensive maintenance is required. For some soils rated severe, such costly measures may not be feasible.

- - - SECTION LINE
- · - · TOWN BOUNDARY
- ■ ■ ■ WATERSHED BOUNDARY

NORTH

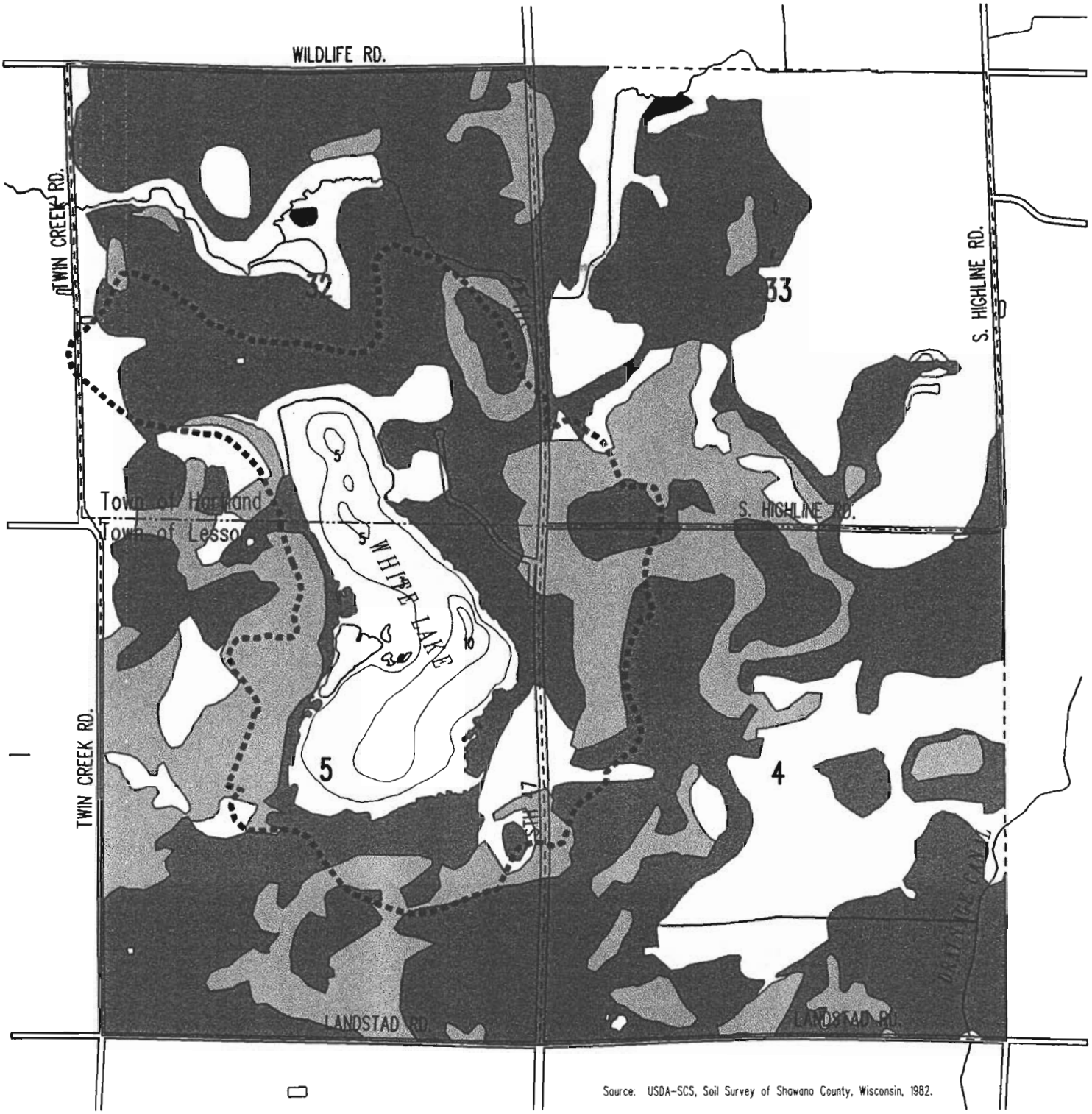
0 1000 2000

SCALE IN FEET

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - AUGUST 1996

Figure 5

WHITE LAKE AREA
PRIME AGRICULTURE SOILS



SECTION LINE
TOWN BOUNDARY
WATERSHED BOUNDARY

CLASS I AND II SOILS
CLASS III SOILS

Shaded areas indicate prime agricultural soils. According to the Shawano County Farmland Preservation Plan, prime agricultural soils are defined as Class I, II and III soils. Class I and II soils are shaded in dark gray, and Class III soils are shaded in light gray.

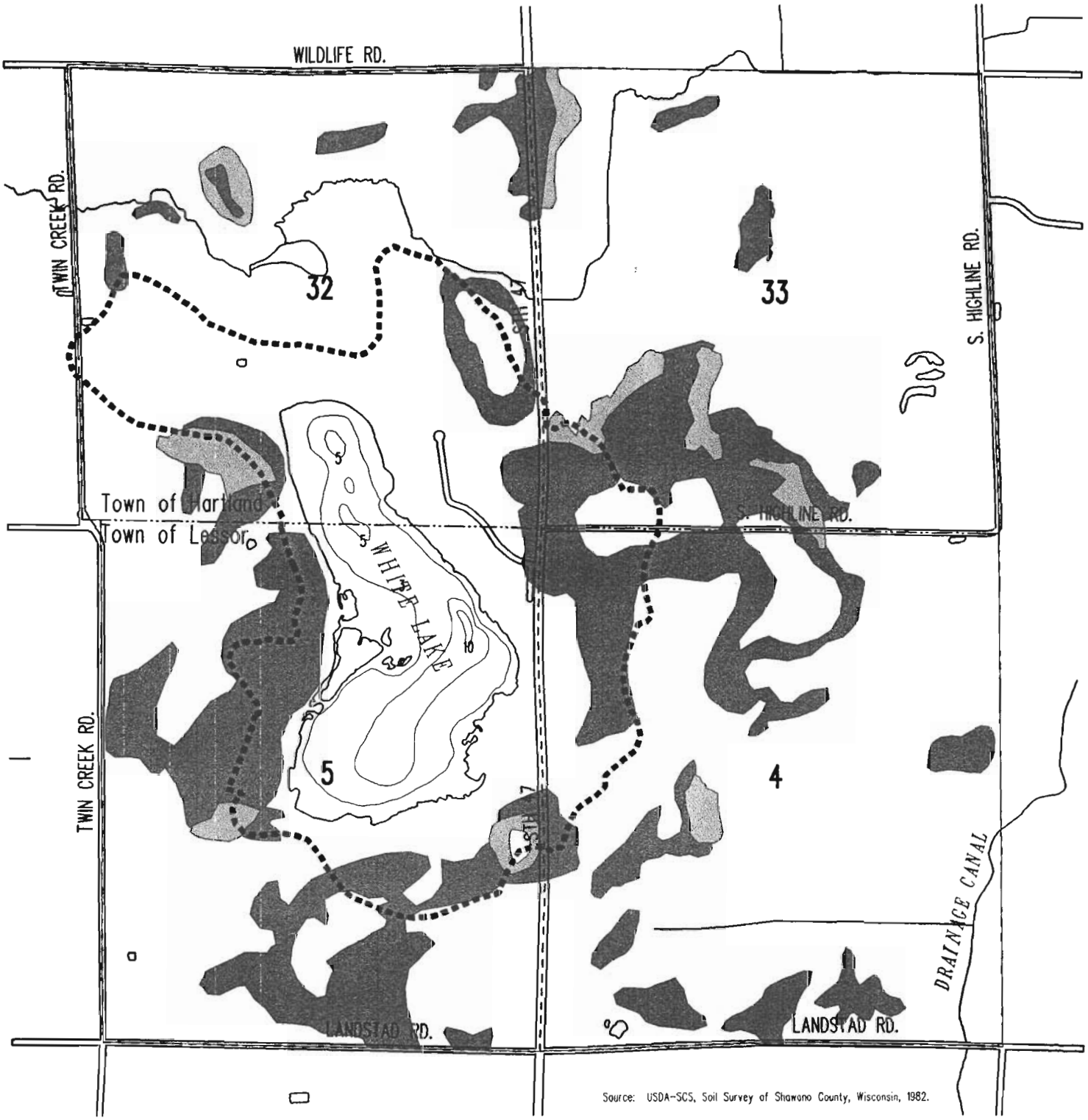
NORTH
0 1000 2000
SCALE IN FEET

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - AUGUST 1996

Figure 6

WHITE LAKE AREA
SLOPE CONDITIONS



Source: USDA-SCS, Soil Survey of Shawano County, Wisconsin, 1982.

Areas shaded in dark gray indicate soil types with moderate slopes, which are defined as six to twelve percent slopes. Soils with a moderate slope require special practices to insure satisfactory performance of the soils for a specific use. Areas shaded in light gray indicate soil types with severe slopes, which are defined as greater than 12 percent. Soils with a severe slope are not recommended for development due to the instability of the soil and the high cost of corrective measures.

- SECTION LINE
- TOWN BOUNDARY
- WATERSHED BOUNDARY
- MODERATE SLOPES
- SEVERE SLOPES

NORTH

0 1000 2000

SCALE IN FEET

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - AUGUST 1996

EXISTING LAND USE AND ZONING

EXISTING LAND USE

White Lake Study Area

Of the 2,690.15 acres contained within the White Lake study area, approximately seven percent, or 181.91 acres is developed (Table 1). The principal uses in the remaining acreage are cropland, with 52.42 percent of the total acres, and woodlands, with 29.16 percent. Water areas comprise about six percent of the total acreage and vacant/undeveloped land uses, approximately five percent.

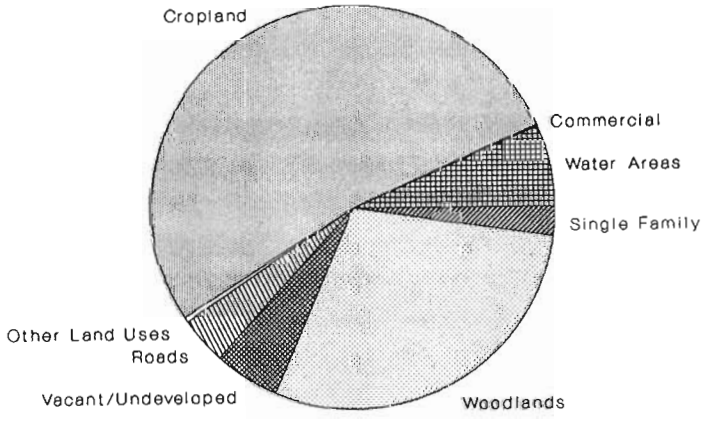
Table 1

EXISTING LAND USE, 1995
WHITE LAKE STUDY AREA

Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	64.12	35.25%	2.38%
Commercial	4.40	2.42%	0.16%
Public/Institutional	0.38	0.21%	0.01%
Parks/Open Space	10.52	5.78%	0.39%
Roads	102.49	56.34%	3.81%
Total Developed	181.91	100.00%	6.76%
Cropland	1,410.06	--	52.42%
Woodlands	784.40	--	29.16%
Vacant/Undeveloped	140.61	--	5.23%
Water Areas	173.17	--	6.44%
Total Acreage	2,508.24	--	100.00%

Figure 7

EXISTING LAND USE, 1995



The dominant land use in the developed portion of the study area is roads, with 56.34 percent, followed by single family residential, with 35.25 percent. Parks and open space uses comprise 5.78 percent of the acreage in the study area, with commercial development and public/institutional uses encompassing 2.42 percent and 0.21 percent, respectively.

White Lake Watershed

The White Lake watershed encompasses approximately 647 acres (Table 2). The principal uses within the watershed are cropland, with 41.68 percent of the total area and surface water, with 25.53 percent. Woodlands comprise almost 20 percent of the total acreage and vacant/undeveloped land uses, approximately eight percent. All other land uses (single family residential, roads and public/institutional) comprise the remaining 5.59 percent.

Table 2

EXISTING LAND USE, 1995
WHITE LAKE WATERSHED

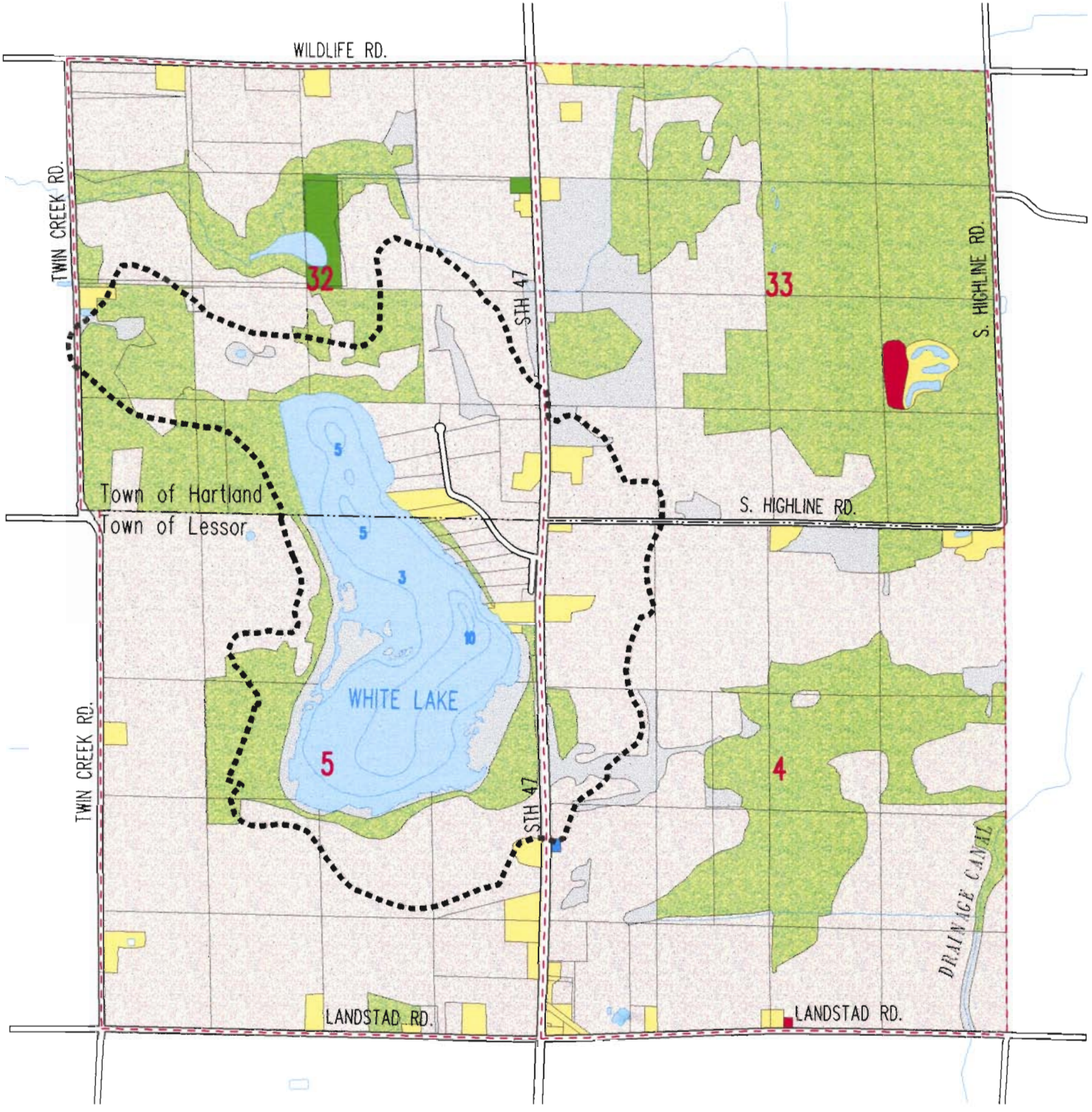
Land Use	Acres	Percent of Developed Land	Percent of Total
Single Family Residential	18.27	50.53%	2.82%
Public/Institutional	0.06	0.17%	0.01%
Roads	17.83	49.31%	2.76%
Total Developed	36.16	100.00%	5.59%
Cropland	269.60	--	41.68%
Woodlands	125.96	--	19.47%
Vacant/Undeveloped	49.99	--	7.73%
Water Areas	165.14	--	25.53%
Total Acreage	646.85	--	100.00%

EXISTING ZONING

The majority of the White Lake Study area is under agricultural zoning. Approximately three quarters of the study area is in general agriculture zoning. This zoning classification allows residential development on one-acre parcels. About 15 percent of the study area is zoned general agriculture - first class. This zoning classification provides a mechanism to protect productive farms from non-farm development. Within this zoning classification, the only non-farm development which is allowed is the construction of houses for a parent or child of the farmer. The remainder of the study area falls under either open space or commercial zoning.

Although not mapped, many areas within the study area fall under the purview of Shawano County's shoreland zoning jurisdiction. Shoreland zoning applies to all lands located within 1,000 feet of the normal high water elevation of a lake, pond or flowage and within 300 feet of the normal high water elevation of a river or stream or the landward side of the floodplain. Because many of these areas are highly environmentally sensitive, the provisions and/or restrictions of traditional zoning may not provide an adequate level of protection for these highly sensitive areas. The intent of shoreland zoning, therefore, is to ensure that these areas receive adequate protection from adverse environmental impacts. Shoreline zoning is applied as an "overlay" district, which means that the underlying zoning is still intact but that additional restrictions may be placed on how the land can be used by the Shawano County Planning Committee. If it deems appropriate, the committee may determine that no land can be used or structure erected where the land is held to be unsuitable because of one or more of several environmental factors. These are enumerated in Sec. 3.05 of the county's zoning ordinance.

Figure 8
WHITE LAKE AREA
EXISTING LAND USE 1995



SINGLE FAMILY RESIDENTIAL
COMMERCIAL
PUBLIC FACILITIES / UTILITIES
PARKS AND OPEN SPACE
WOODLANDS
CROPLAND
VACANT / UNDEVELOPED

SECTION LINE
TOWN BOUNDARY
WATERSHED BOUNDARY

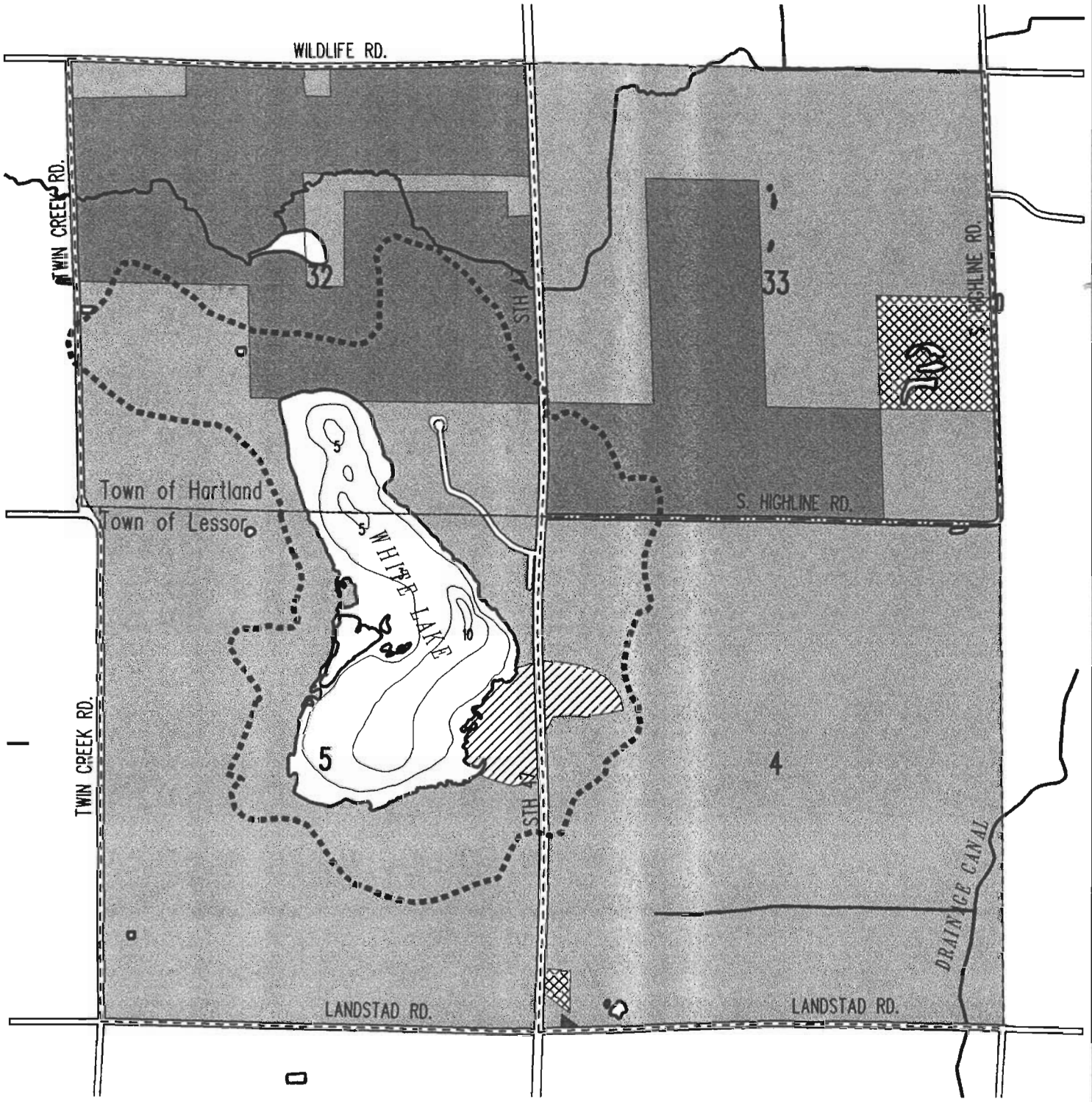
This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

NORTH
0 1000 2000
SCALE IN FEET

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - DECEMBER 1996

Figure 9

WHITE LAKE AREA
EXISTING ZONING



This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION – AUGUST 1996

LAND USE AND DEVELOPMENT STRATEGY

The White Lake watershed is located in the southwestern portion of the Town of Hartland and the northwestern portion of the Town of Lessor in Shawano County. Despite the fact that a state trunk highway, STH 47, runs north to south through the eastern portion of the White Lake watershed, White Lake has remained relatively undeveloped until very recently.

In the last year, however, the White Lake area has been experiencing increased residential development pressure. Recent platting of a subdivision on the northeast shore of White Lake has already resulted in the construction of three lakefront homes and a developer is pursuing the development of several other parcels. The soils along the perimeter of White Lake will not percolate. Consequently, only holding tank permits have been issued for this residential development.

In preparing a land use and development plan, the towns are attempting to address the appropriateness of White Lake for residential development as well as many other issues which include the following:

- The impact residential development will have on White Lake
- Appropriate parcel size for residential development
- Building setbacks from White Lake and neighboring parcels
- Imposition of a minimum lake frontage requirement
- Appropriate minimum square footage of houses

GOALS AND OBJECTIVES

The first phase in the planning process involves defining a vision for the White Lake Watershed, including setting goals and objectives. The following goals and objectives were identified during this process:

Goal: Maintain the rural character and small community atmosphere of the White Lake area.

Objectives: Protect the natural, unspoiled shoreline.

Preserve the area as a wildlife habitat.

Promote open space uses in the watershed.

Goal: Promote planned development in the White Lake Watershed.

Objectives: Minimize the location of conflicting land uses adjacent to each other.

Identify the most appropriate areas for residential development.

Identify appropriate development requirements: building setback, building size, lot frontage, and shoreline buffer area.

Encourage cluster residential development and planned unit developments or large lot residential development.

Goal: Maintain the quality of White Lake.

Objectives: Restrict the cutting of shoreline vegetation.

Monitor septic systems more closely to ensure they are not polluting White Lake.

Protect the shoreline from excessive development.

Minimize run-off into White Lake.

STRATEGIES AND RECOMMENDATIONS

The overall purpose of the land use strategies and recommendations is to preserve and enhance the quality of life within the watershed. When utilized with the proper review, these land use strategies and recommendations can serve as guidelines in the land use and development decision-making process. Hartland and Lessor town officials should follow these guidelines with the understanding that they will also be using their best analysis techniques in making land use decisions. These strategies should be used as a framework for potential situations officials will face. Making tough land use choices to protect the welfare of both communities is necessary in order to reach the goals expressed by town residents.

The following strategies and recommendations are proposed as a means of accomplishing the plan goals and objectives:

Restrict development of unsuitable areas.

Wetlands and floodplains are examples of areas where development is limited by local governments as well as state and federal agencies. However, other areas which are not presently regulated may be poor development sites. These areas may be unsuitable for

on-site waste disposal systems or have steep slopes or other characteristics which are unfavorable for building construction.

The town should consider the prohibition of holding tanks for new development.

Holding tanks enable the development of building sites which are marginally Developable. Development of such sites often leads to long term costs to correct structural problems, environmental contamination or site deficiencies such as poor drainage. Unlike conventional septic or mound systems do which treat the wastewater before allowing it to seep into the ground, holding tanks are not considered a "wastewater treatment system." Holding tanks do not treat household wastewater. They only serve as storage. The wastewater must be regularly pumped out and sent to treatment facilities.

High operating costs for collecting, transporting and treating holding tank effluent induce some holding tank owners to improperly dispose of wastes, threatening surface and groundwater used by themselves and their neighbors. A substantial maintenance program must be followed by users to ensure no leaks exist in the tank and the holding capacities are stable. No real "policing" of the owners' maintenance exists, making remediation of environmentally sensitive areas difficult.

Discourage commercial and industrial development in the White Lake Watershed.

The towns of Hartland and Lessor have a rural character, and residents enjoy a special quality of life. Presently, there is no commercial or industrial development within the watershed boundary, and little commercial development in the immediate vicinity. In order to preserve this rural character, the town boards should strongly discourage commercial and industrial development within the watershed boundaries.

The towns should preserve the natural shoreline.

Preservation of natural shoreline buffer areas is an important part of any lake management strategy. The natural vegetation along the shoreline anchors soils, retards runoff and filters out pollutants. Undisturbed native grassland or forest vegetation cover soils protecting them from erosion by the direct impact of raindrops. Dense root systems anchor soils against most overland flow. Deep layers of decaying vegetation and well aerated soils act like a sponge to accept vast amounts of water. Rain and snowmelt percolate to groundwater with a minimum of runoff. Such infiltration permits physical, chemical and biological processes to filter out and make nutrients and pollutants carried by water less harmful.

The towns should encourage Shawano County to amend its Shoreland Zoning Ordinance to include a White Lake Protection District.

This type of district would provide the mechanism for the towns and county to protect White Lake's shoreline areas and water quality. The district would consist of the White Lake watershed. Within the amendment to the Shoreland Zoning Ordinance, standards would be established for the following: minimum lot widths, water frontage, setbacks, shoreland vegetation, accessory structures, color of structures and piers. This amendment would also propose two alternative development scenarios, cluster development or conventional lakefront development.

Pursuant to the endorsement of this recommendation by the two towns and at their urging, Shawano County recently adopted an amendment to its Shoreland Zoning Ordinance which creates a White Lake Protection District. The complete amendment is included in Appendix B.

WHITE LAKE DEVELOPMENT CONCEPTS

As a way of demonstrating how the recently adopted amendment could be applied to future development on lands adjacent to White Lake, two alternative concepts have been prepared (Figures 10 and 11). Each of these concepts is based on a unique feature of the White Lake Protection District, which allows the developer to choose one of two development scenarios. One option is to develop waterfront lots with a minimum lot width of 200 feet. The second option is a cluster development (planned unit development) which allows for smaller lot widths but requires the preservation of open space along the shoreline.

Under the White Lake Protection District zoning, waterfront lots must be at least 200 feet in width and contain 80,000 square feet. The dimensions of a typical lot, therefore, would be expected to be a minimum of 200 feet by 400 feet. Lots less than 300 feet in width must also comply with a building setback requirement of 150 feet from the lake's ordinary high water mark. Those 300 feet or greater in width have a setback of only 100 feet. Also included in the White Lake Protection District are provisions establishing building and construction standards, protecting shoreline areas from vegetation removal and other site disturbance, and regulating piers. These provisions are detailed in Appendix B.

To encourage more innovative development, the White Lake Protection District zoning also gives the developer the option of requesting that his development be zoned as a Planned Unit Development (PUD). The PUD allows the developer to plat lots as narrow as 100 feet in width and as small as 20,000 square feet in area if soil conditions for in-ground septic systems are favorable. Under this scenario, the dimension of a typical lot could be as small as 100 feet by 200 feet. Less favorable but still suitable soils for in-ground systems as well as soils capable of accommodating a mound system may require lots as large as 30,000 square feet. On the other hand, should a public or centralized sewer system or

water supply be available, lots much smaller than 20,000 square feet can be platted. The specifics are spelled out in Table 85.03 of the Wisconsin Administrative Code. In either case, lot area can be downsized considerably beyond the 80,000 square foot lot area permitted under the more conventional development.

Another unique feature of the PUD provision in the White Lake Protection District is that it also permits the developer to plat up to 50 percent more lots than allowed under the District's conventional development requirements. In exchange, the developer agrees to preserve as open space the site's most sensitive environmental features including all lands adjacent to the shoreline. Another requirement is that the total area encompassed by the PUD must be at least 40 acres.

The smaller lot size permitted under PUD zoning has several other advantages over conventional development. First, it promotes concentrated development, enabling most, if not all, building sites to take advantage of favorable soils. This minimizes construction costs and reduces the risk of groundwater and surface water contamination and other environmental problems. The smaller lots also enable more properties to be developed with overviews of the lake. The preserved greenspace in the PUD is an amenity which provides access to the shoreline for all residents of the development and offers the potential for development of hiking and cross-country ski trails and similar facilities which all residents are free to enjoy.

Portions of two properties - the Brecken property, located on the west shoreline of White Lake, and the Koeppen property, located along the south shore - have been selected to illustrate the two alternative methods of development permitted in the White Lake Protection District. These tracts were chosen because they represent those portions of the lake's shoreline most suitable for development.

Brecken Property

The eastern portion of the Brecken property was targeted for development. The two concepts identify an irregular boundary line to define the limit of development. This line was located to enable existing cultivated fields and a barn to remain in farm operations. Adequate area was included (approximately 43 acres) to enable the site to be developed as a Planned Unit Development or as a conventional development with lots fronting on the shoreline.

Conventional Development. Shoreline frontage of the Brecken property is less than 2,000 feet, indicating a maximum of nine waterfront lots could be platted in compliance with the White Lake Protection District zoning (Figure 10). The concept provides a subdivision with 16 highly buildable lots, including eight with lake frontage and at least an additional four with lake views. Each lot accesses a single cul-de-sac. (A layout which maximizes the number of lots by careful platting to keep lots near the 80,000 square foot minimum size could perhaps provide 20 lots.) Locating the cul-de-sac as shown (generally

slightly to the west of the ridge line) maximizes the value of the lakeshore lots by providing building sites along the ridge top and opportunities for walk-out basements. A line marks the 150 foot shoreline setback (Figure 10). Please note that this would not significantly compromise the siting of individual houses.

Planned Unit Development (PUD). Based on the provisions of the PUD zoning, the same tract could accommodate 24 smaller lots (Figure 11). The concept calls for a primary cul-de-sac and a secondary cul-de-sac, which would serve a cluster of lots sited to take advantage of the southeasterly slope in the southern portion of the tract. In total, 18 of the 24 lots have lake views. The entire lakeshore is preserved as common open space as is the perimeter of the site. Each lot has direct access to this common area, and strategically located "fingers" of open space between adjacent lots provide convenient access to the water's edge, even for those lots located on the west side of the cul-de-sac. Opportunities for developing loop recreational trails in this preserved common open space are obvious.

One feature of the concept is the use of large cul-de-sac turn-arounds. In most cases, developers see no need to exceed the 60 foot minimum radius requirement for these "bubbles" as they take away from the total acreage available for development. This may be ill-placed logic, however, as when lots are small, these relatively small radius "bubbles" result in the creation of severely wedge-shaped lots which results in significant setbacks for buildings to comply with side yard requirements. The larger "bubbles" (in this case, 100 foot radius) allow each lot to have greater street frontage and thus reduce the degree of "wedging". As a result, less lot depth is needed to comply with average lot width requirements, and a greater number of lots can be platted around the perimeter of the turn-around. The turn-around itself would be a loop around the perimeter of the "bubble", with the interior left in its natural condition as open space.

Koeppen Property

Concepts were also prepared to show potential development of the western portions of the Koeppen property. The area targeted for development has frontage on the south shore of the lake and excludes the knoll adjacent to the farmstead. Adequate area was included (approximately 56 acres) to enable the site to be developed as a Planned Unit Development or as a conventional development with lots fronting on the shoreline. An advantage of this parcel over the Brecken property is that the entire site slopes toward the lake, providing an opportunity for all homesites to have views of the lake.

Conventional Development. Shoreline frontage of the Koeppen property is about 1,600 feet, indicating a maximum of eight waterfront lots could be platted in compliance with the White Lake Protection District zoning (Figure 10). The concept provides a subdivision of 20 lots, including eight with lake frontage. Some of the lots, particularly those closest to the lake, have severe soil limitations for septic tank absorption fields.

(Although careful attention to minimum lot size could increase the number of potential lots somewhat, extensive wetlands along the shore suggest the layout shown in the concept is undoubtedly very close to how the area would be platted in a conventional subdivision.) Locating the main cul-de-sac as shown, generally parallel to and halfway up the slope, for the most part allows residents of back lots to see the lake over the roofs of homes in front of them. A line marks the 150 foot shoreline setback (Figure 10). Since most of this area is classified as wetland, this setback requirement would have virtually no impact on the siting of individual houses.

Planned Unit Development (PUD). Based on the provisions of the PUD zoning, the same tract could accommodate 30 smaller lots (Figure 11). The concept calls for a primary cul-de-sac and a secondary cul-de-sac, which would serve a small cluster of lots along the south property line. The smaller lots permitted in the PUD allow all the lots to be located on those portions of the site most suitable for development. The entire lakeshore, much of which is wetland, is preserved as common open space as is the perimeter of the site. As in the Brecken property Planned Unit Development concept, each lot has direct access to this common area, and strategically located "fingers" of open space between adjacent lots provide convenient access to the water's edge and opportunities for trails. Because the shoreline is somewhat removed from most development, it may be desirable to provide a drive to enable vehicles (property owners only) to access the common mooring pier. Given the extensive wetlands along the shore, it may not be possible to secure the necessary permits for this undertaking. This concept also promotes the use of large cul-de-sac turn-around areas.

Remaining Issues

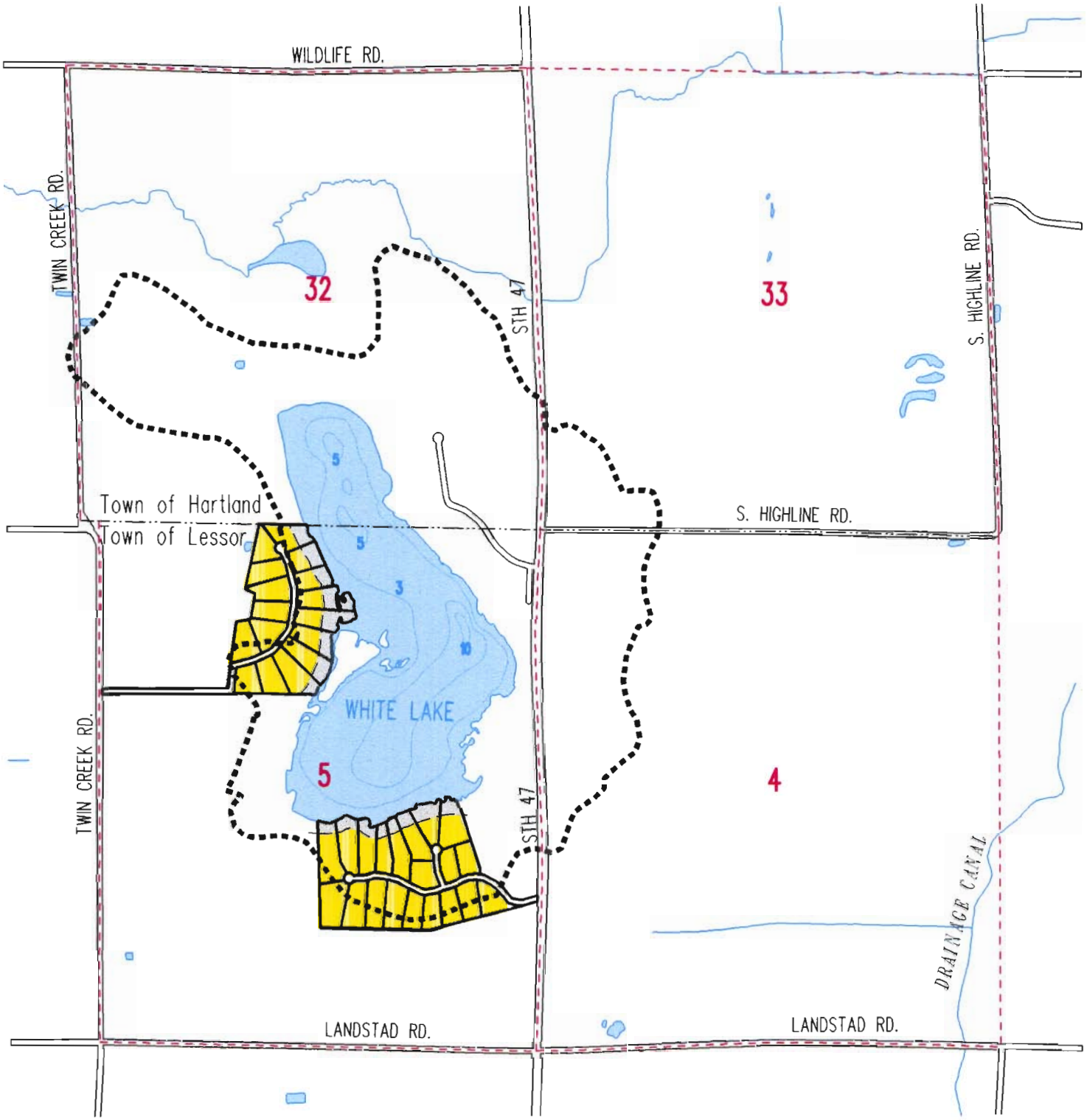
As development concepts for the Brecken and Koeppen properties evolved, two issues arose which appear to need additional attention or clarification before the White Lake Protection District can be implemented. These are described below.

Under the Planned Unit Development, common ownership of shoreline areas precludes the installation of private individual piers. Instead, a common mooring pier would be needed to provide long and/or short term mooring for watercraft of residents in the development. An advantage of the common mooring pier is that it could be sited in the best location along the shoreline, where water depths and shoreline access are optimum. It does not appear the PUD provision in the county ordinance adequately addresses the appropriateness of this concept of commonality and its implications for allowing a larger single pier to be constructed along the shoreline. This issue should be resolved to allay concerns of developers wishing to implement PUD zoning.

Another issue which must be resolved is the maximum number of lots which would be permitted under the Planned Unit Development option. As an example, the concepts for the Brecken property show that 16 conventional lots could be platted, which translates to 24 lots under the PUD option. However, as was alluded to earlier, it may be possible

to accommodate as many as 20 conventional lots on this parcel by careful platting which would keep lots near the 80,000 square foot minimum size and minimize the area allocated for streets. If a developer can demonstrate that 20 lots can be platted on this site which comply with all requirements of conventional zoning, he should be given the opportunity to develop up to 30 lots under the PUD 1.50:1.00 provision identified in Section 3.22(4) provided each complies with requirements of the sanitary code. In nearly every instance, this should be possible because the PUD can concentrate most of the building sites on those portions of the tract most favorable for on-site waste disposal systems. As a result, many if not all of the lots can be downsized to 20,000 square feet and still comply with sanitary codes. In a worse case scenario where less favorable soil conditions exist, all lots would need to be up to 30,000 square feet or larger to accommodate conventional in-ground or mound waste disposal systems. A notable exception would be when the bulk of the site is considered undevelopable regardless of the waste disposal option provided. In this case, it may be difficult to maximize the number of potential building sites on the remaining acreage. Similarly, although the PUD concepts for both the Brecken and Koeppen properties assume smaller lots meeting sanitary codes could be platted, more detailed study of the soil characteristics of these properties must be undertaken before the amount of undevelopable acreage and sizes of individual lots can be ascertained.

Figure 10
WHITE LAKE AREA
CONVENTIONAL ZONING DEVELOPMENT CONCEPT



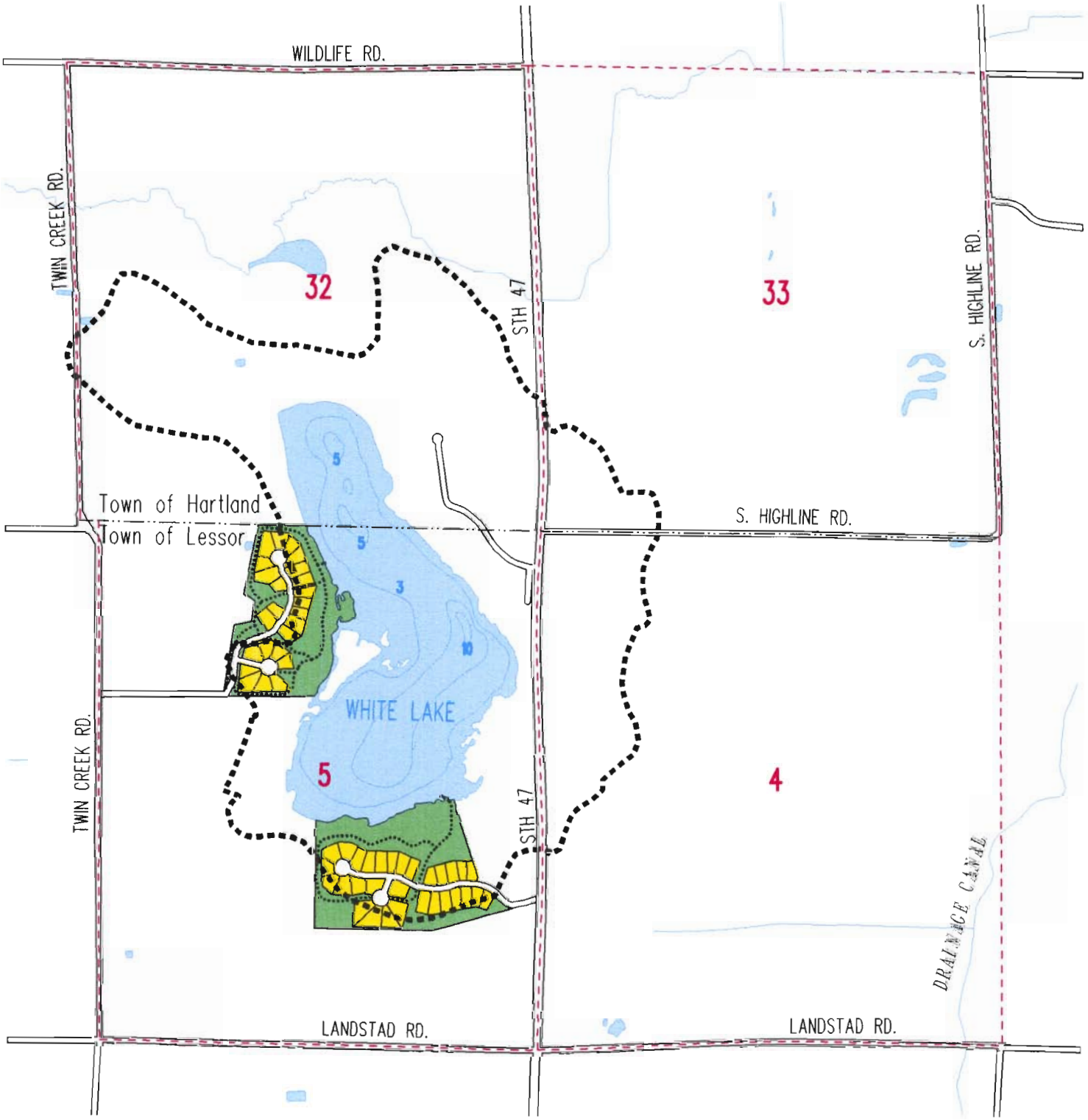
SECTION LINE
WATERSHED BOUNDARY
TOWN BOUNDARY
150' SETBACK
RESIDENTIAL

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

NORTH
0 1000 2000
SCALE IN FEET

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - DECEMBER 1996

Figure 11
WHITE LAKE AREA
PLANNED UNIT DEVELOPMENT CONCEPT



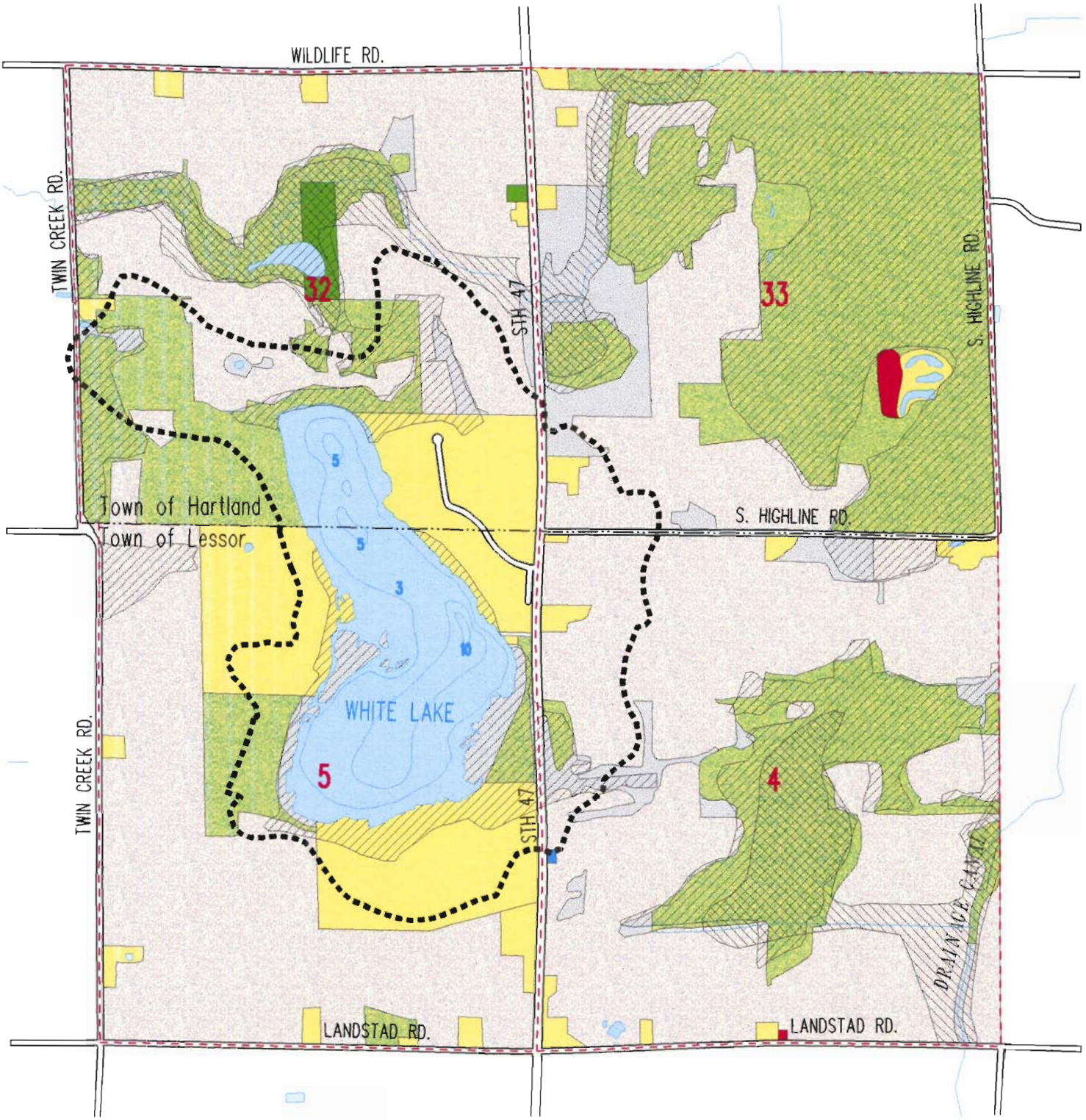
RECREATION TRAIL
WATERSHED
SECTION LINE
TOWN BOUNDARY
RESIDENTIAL
OPEN SPACE

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

NORTH
0 1000 2000
SCALE IN FEET

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION – DECEMBER 1996

Figure 12
WHITE LAKE AREA
LAND USE PLAN



SINGLE FAMILY RESIDENTIAL
COMMERCIAL
PUBLIC FACILITIES / UTILITIES
PARKS AND OPEN SPACE
WOODLANDS
CROPLAND
VACANT / UNDEVELOPED
FLOODPLAIN
WETLAND

SECTION LINE
TOWN BOUNDARY
WATERSHED BOUNDARY

NORTH
0 1000 2000
SCALE IN FEET

This map is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records information and data used for reference purposes only. ECWRPC is not responsible for any inaccuracies herein contained.

Prepared By: EAST CENTRAL WISCONSIN REGIONAL PLANNING COMMISSION - DECEMBER 1996

APPENDIX A

NEEDS IDENTIFICATION SESSION RESULTS

In May 1995, the towns of Hartland and Lessor contracted with East Central Wisconsin Regional Planning Commission (ECWRPC) for the preparation of a Lake Management Plan for the White Lake Watershed. In order to gain citizen input and involve town residents and property owners in the planning process, ECWRPC conducted a needs identification session on August 7, 1995. Attended by approximately 60 citizens, participants were divided into groups and asked to identify and prioritize the needs and strengths for the White Lake area.

Process

Initially, each group participant was given paper and asked to jot down each strength or attractive quality they thought the community offered. After completion, each comment was collectively recorded by the group leader on large sheets of paper displayed at the head of each table. The identification of problems and needs proceeded in the same manner.

The second phase of the process was to prioritize the list. Each participant was given three stick-on dots which would represent the three most important elements on the list. Each participant placed the dots accordingly on the large sheets. A summary of the strengths and needs identified during this session are presented on the following pages.

Findings

Among the positive attributes of the town, the group cited the natural, unspoiled shoreline, good wildlife habitat (such as, eagles, sandhills and hawks), lack of development, and view of the beautiful lake.

Among the most pressing needs identified by the group was the desire to keep the White Lake area in its present state, the need to have White Lake cleaned up, high taxes, concern that too much development will ruin the lake, the desire to limit holding tanks, the aeration of the lake, and the need to protect the shoreline.

STRENGTHS

STRENGTHS

Natural, Rural Environment

Natural, unspoiled shoreline - 14
Provides good wildlife habitat (eagles, sandhills, hawks, etc.) - 12
Lack of development - 7
Nesting area for bald eagles - 3
A lake that is still somewhat natural - 2
Lack of crowds - 2
Productive farmland - 1
Unique characteristics (bog) - 1
God's country
Good place to raise animals
Good watershed area
Good woodlands
Nature
Nature walks
Open spaces
Open spaces
Present character
Rural area
Rural atmosphere
Small community atmosphere
Solitude
Wildlife

Beautiful Location

View of a beautiful lake - 7
Beauty of lake itself - 3
Beauty of pastoral areas - 1
Beauty of wooded areas
Looks good from highway
Pretty area
Scenery
Scenic area

Good Location

Location for commuting from Green Bay/Appleton - 2
Close to schools and churches - 1

Accessibility (close to highway)
Good location
Great access to highways 29 and 47
In Wisconsin

Recreational Activities/Areas

Boating - 2
Good fishing, summer and winter - 2
Hunting - 1
Duck and goose hunting
Has public boat landing
Recreational areas
Swimming
Vacation area
Water sports

Clean, Quiet and Peaceful

Clean, no pollution - 3
Quiet and peaceful atmosphere - 2
Peaceful - 1
Air quality
Clean water
Good water quality
Lack of crime and nice people
Not a lot of traffic on roads
Not congested or too much access

Development Issues

Development - 2
New homes increase tax base, improve looks - 1
Room for growth

Good Community, Nice Place to Live

Good place to retire - 3
Environmentally conducive to raising children, good environment to raise children - 1
Good mix of farming and homes - 1
Climate

Community support
Excellent schools
Fine place to live
Good farming community
Good honest people
Low property taxes
State highway maintenance

NEEDS/WEAKNESSES

NEEDS/WEAKNESSES

Existing Water Quality

Lake should be cleaned up - 13
DNR needs to do baseline testing for future comparison - 1
Stop animal waste - 1
Stop the manure runoff - 1
Clean out main structure of lake
Murky shallow water
Not good swimming lake
Poor water quality
Too many nutrients (fertilizers, pesticides, erosion)
Too much farm run-off into lake
Too much junk in the lake
Weed control
Weedy lake

Future Water Quality

Too much development will ruin the lake - 8
Too many roads will damage environment with salt, congestion - 1
Fear of polluting lake with sewerage, etc.
Small lake can be harmed by external forces

Protection of Fish/Wildlife

Aeration of lake - 7
Lake dying, prone to winterkill - 3
Protect wildlife habitat - 1
Aeration to prevent winterkill
Aerator to stop freeze-out
Control fish harvest
It's a freeze-out lake
Need to make lake an undeveloped wildlife refuge for all to enjoy
Open up the bog for better fishing
Question: why is there a fish die-off every four years?
Study to increase breeding of fish
Too much pressure during spawning
Wildlife habitat needs development

Protection of Shoreline

No shoreline should be cut down - 7
Muddy shorelines - 6
Lakeshore could be cleaned up
Poor lakeshore
Protect shorelines from excessive development
Protect the shoreline

Access to White Lake

Improve the boat landing that's there
Inlet/outlets not very large
Limited access for recreation uses

Other Lake Issues

Lake study, what is causing problems - 1
Need to protect Mud Lake too - 1
Needs to be a no wake lake - 1
No dredging or filling lake - 1
Education on lake management
Evaluate garbage on ice from ice fishing
Improve swimming area (no swimming area)
Lake association, various funding sources, donation at boat landing, grants
Lake needs maintenance
Lake should be dredged
Limit size of engines, boats
Need portable toilet at boat landing
Need preservation
Need to keep weed growth in check
No motors allowed on lake
Noise pollution from the water sports
Possibly too much pressure due to ice fishing
Speedboats and jet skis

The Need to Limit or Control Development

Keep area in present state - 15
Control on future growth development - 2
Fear of excessive growth - 2
Frontage when developing, approximately 200 feet - 2

Good planning for controlled growth - 2
Need restrictions on number of people moving in around the lake - 2
Don't overbuild on the lake - 1
Increase size of lots - 1
Need enforceable 80 acre lot sizes - 1
Need to know what the developer plans to do, need a commitment and plans - 1
Bad attitudes for fear of progress
Don't build in every wood lot so people can use their land for recreation purposes
If we don't protect open spaces and natural areas, they will be gone
Monitor structures (attached garages preferred)
Needs growth regulation
Old barn buildings should be torn down
Setback from lake at least 200 feet
Size/character of homes

The Need for Planning

Need long-range development plan - 1
Need consistency in a development plan
Needs a comprehensive land use plan
Needs well-planned and managed type of buildings, septic systems, crowding, etc.

Transportation Issues

Public access needs better parking - 1
Need parking at public landing
Poor conditions of side roads
Too much traffic on 47
Town roads are in poor condition
Traffic noise from Highway 47

Septic/Holding Tank Issues

Should have no holding tanks allowed - 8
More land control for sewage disposal - 2
Monitor septic systems - 1
Prefer holding tanks
Sanitation problems for wetlands

Farmland Issues

Need to keep farmland - 4
An end to farmland preservation - 3

Taxes

Taxes too high for rural area due to lack of development - 9
High taxes
Taxes will go up too high

Existing Regulations

County and DNR should decide who's in charge and enforce accordingly - 2
County needs to determine how they will enforce regulations - 1
County should enforce laws they already have

Other Issues

Freedom to live and develop his land under the laws of the state - 3
Limiting landowner rights - 3
Loss of hunting and wetlands - 1
Poor residential area due to high water - 1
Protect wildlife habitat - 1
Danger of Amish buggies in area
Keep up home area (year-round)
Lack of community support
More honesty
Telephone tower potential health hazard

APPENDIX B

PROPOSED AMENDMENTS TO THE SHAWANO COUNTY SHORELAND ZONING ORDINANCE

1. Retitle current Section 8.0 Shoreland-Wetland District as Section 8.0 Special Purpose Districts

2. Renumber the Shoreland-Wetland District as Section 8.1 et seq.

3. Create a White Lake Protection District as Section 8.2

SECTION 8.2 - WHITE LAKE PROTECTION DISTRICT

8.21 Jurisdiction

These provisions apply to all lands within 1,000 feet of the ordinary highwater mark of White Lake and to specified activities on the bed of White Lake in the towns of Hartland and Lessor.

8.22 Purpose

These provisions are adopted to protect the rural character and environmental quality of the White Lake area by:

8.221 Encouraging open space uses in the watershed consistent with reasonable agricultural and residential use of the property and avoidance of conflict between uses;

8.222 Encouraging residential development which is adapted to its location and clustered where possible to provide economic and environmental benefits;

8.223 Requiring natural shoreline buffer areas to conserve water quality, natural beauty and fish and wildlife habitat; and by

8.224 Limiting development to areas that can support it.

8.23 Lot Dimensions and Area

After adoption of this ordinance, no lot areas shall be so reduced that the dimensional and yard requirements of this ordinance cannot be met.

8.231 The minimum width for each waterfront lot measured more or less parallel to the shoreline shall be 200 feet.

8.232 A minimum 200 feet of lot width is required for each dwelling unit unless a planned unit development is approved for the site (Section 3.2).

8.233 The minimum area for each lot shall be 80,000 square feet.

8.24 Setbacks

8.241 On lots with a minimum width of at least 300 feet, the minimum shoreline setback from the ordinary highwater mark for all structures except piers shall be 100 feet.

8.242 On lots with a minimum width of less than 300 feet, the minimum shoreline setback from the ordinary highwater mark for all structures except piers hall be 150 feet.

8.243 The side yard setback for all structures shall be 30 feet.

8.25 Building and Construction Standards

8.251 The minimum area for residential structures shall be 1,200 square feet on a single level.

8.252 No more than eight (8%) percent of each lot within 300 feet of the ordinary highwater mark may be covered by impervious surfaces including but not limited to roofs, driveways, patios and decks.

8.253 No more than one accessory structure of no greater than 600 square feet in area and 14 feet in height may be constructed on a lot.

8.254 The exterior color of structures shall be of earth tones so as to make them, to the extent possible, inconspicuous.

8.255 Construction on slopes greater than twelve (12%) percent shall require a conditional use permit under Section 10.4. In considering such permits, the Planning and Zoning Committee shall consult with the appropriate town board and shall follow the standards of Sections 7.1 and 7.4. The Committee shall impose any additional conditions necessary to achieve the objectives of Section 8.22 or may reject the application if the project cannot be modified to achieve those objectives.

8.26 Shoreline Protection Area

On each lot, in an area bounded by the ordinary highwater mark and a line which is 25 feet less than the shoreline setback (see Sections 8.241 and 8.242), land disturbing activities and vegetation removal are prohibited with these exceptions:

8.261 Pier construction in compliance with Section 8.27 and confined to the view corridor described in Section 8.266.

8.262 A pedestrian access path to the shoreline.

8.263 Shoreline protection authorized by a state permit.

8.264 Removal of dead, diseased or dying trees which are a safety hazard.

8.265 Reestablishment of native plant communities provided land disturbance is minimal, and standard erosion control practices are implemented.

8.266 Establishment of a single view corridor on each lot by pruning and selective removal of trees and shrubbery. Clear cutting, filling, grading and other land disturbing activities are not permitted. Sufficient trees and shrubbery shall be retained to screen development from view from the water. The corridor shall be no more than 30 feet wide at the ordinary highwater mark tapering to no more than 15 feet wide at the landward edge of the shoreline protection area.

8.27 Piers and Berthings

8.271 A single pier or wharf with no more than two berths may be placed by the riparian owner on each lot in accordance with Section 8.261 and Wisconsin Administrative Code NR 326. A berth is a space at a pier or wharf sufficient for mooring a watercraft appropriate for the site and commonly in use at similar sites on White Lake. Such placement shall not require a zoning permit.

8.272 Piers and wharfs for commercial marinas or other businesses may only be located adjacent to shorelines that are zoned C-1 Commercial.

8.273 Boathouses and boat shelters are prohibited.

4. Delete current Section 3.2, Limited Rezoning . . ., and replace with the following provisions to provide incentives for cluster development.

3.2 CLUSTER DEVELOPMENT - LIMITED REZONING TO ACHIEVE REDUCED LOT SIZES

3.21 Purpose

The Planned Residential Unit Development is intended to permit smaller lots than would otherwise be required in the district where the physical layout of the lots is so arranged by clustering development near a single location, setting structures back farther from navigable water and

sensitive areas, and other appropriate means so as to better achieve the objectives of this Ordinance. A condition of all Planned Residential Unit Developments is the preservation of open space along the shoreline in perpetuity.

3.22 Requirements for Planned Unit Developments

The County Board may at its discretion, upon its own motion or upon petition, approve a Planned Unit Development by approving an overlay district and a plat for the specific planned residential project upon finding, after a public hearing, that all of the following facts exist:

(1) **Area.** The area proposed for the Planned Unit Development is at least 40 acres in size.

(2) **Pollution Control.** The location and nature of the septic systems which will serve the homesites individually or collectively will assure that effluent from the septic systems will not reach the ground or surface waters in a condition which would contribute to health hazards, taste, odor, turbidity, fertility or impair the aesthetic character of navigable waters.

(3) **Preservation of Ground Cover.** The location of homesites and the dedication of part of the land for the use by the public or residents of the Planned Unit Development will preserve the ground cover of the shoreland and scenic beauty of the navigable water, prevent erosion and other pertinent factors. Land not used for lots and streets shall be dedicated in perpetuity to remain in open space. This may be accomplished by conveyance in common to each of the owners of the lots in the development or to a corporation formed by them, or by dedication to the county, town or municipality.

Lands dedicated to the public must be accepted by action of the governing body of the accepting unit of government. If the land is to be conveyed to owners of lots in the development, a homeowner's association or similar legally constituted body shall be created to maintain the open space land.

Any restriction placed on platted land by covenant, grant of easement or any other manner which was required by a public body or which names a public body as grantee, promisee or beneficiary, shall be recorded in the county register of deeds office and shall vest in the public body the right to enforce the restriction at law or in equity against anyone who has or acquires an interest in the land subject to the restriction.

(4) **Density.** The number of platted homesites shall not exceed 150 percent of those which would have been possible if the same land were platted in accordance with the minimum lot sizes, setbacks and widths provided by the applicable provisions of the zoning ordinance. This figure shall be determined by dividing the total area of the subdivision, excluding streets, by the minimum lot size required by Section 8.23.

(5) **Lot Sizes, Widths and Other Standards.** A minimum lot size of 20,000 square feet and minimum lot width of 100 feet are established for Planned Unit Developments. Lots shall not be so small as to cause pollution or erosion along streets or other public ways and waterways or so small as to substantially depreciate the property values in the immediate neighborhood. Shore cover provisions in Section 8.0 shall apply.

3.23 Procedure for Establishing a Planned Unit Development District

The procedure for establishing limited rezoning in the form of a Planned Residential Unit Development district shall be as follows:

(1) **Petition.** A petition setting forth all of the facts required in Section 3.22 shall be submitted to the County Clerk with sufficient copies to provide for distribution by the Clerk as required by Section 3.23(2).

(2) **Review and Hearing.** The petition shall be submitted to the county zoning agency established as required by S. 59.97 (3)(d), Wis. Stats., which shall hold a public hearing and report to the County Board as required by law. Copies of the petition and notice of the hearing shall also be sent to the appropriate district office of the Department as described in Section 11.2 of this Ordinance.

(3) **Findings and Conditions of Approval.** The County Board shall make written findings as to the compliance or noncompliance of the proposed overlay district with each of the applicable requirements set forth in Section 3.22. If the petition is granted in whole or part, the County Board shall attach such written conditions to the approval as are required by and consistent with Section 3.22. The conditions of approval shall in all cases establish the specific restrictions applicable with regard to minimum lot sizes, width, setbacks and the location of septic systems and the preservation of ground cover and open space.

(4) **Planning Studies.** A landowner or petitioner may at his own expense develop the facts required to establish compliance with the provisions of Section 3.22 or may be required to contribute funds to the county to defray all or part of the cost of such studies being undertaken by the county or any agency or person with whom the county contracts for such work.