WHITEFISH DUNES STATE PARK

MASTER PLAN

Wisconsin Department of Natural Resources

Bureau of Parks & Recreation

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Whitefish Dunes State Park

Master Plan

I. BACKGROUND INFORMATION

A. Regional Context

Whitefish Dunes State Park is located on the east side of the Door Peninsula, south of Jacksonport on Lake Michigan. The exact location is Door County, T. 28 N., R. 27 E., Sections 2, 3, 9 & 10 in the Township of Sevastopol. (See location maps in appendix A)

The park is accessible from Sturgeon Bay via State Highway 57 and County T. There is one and only one bridge crossing the channel at Sturgeon Bay and all motor traffic must pass over this bridge to get to upper Door County. State Highways 57 and 42 share a common route through Sturgeon Bay. A new bridge is presently under construction and is located on the east side of the City of Sturgeon Bay. It will serve as a bypass of the City and will handle Highway 42-57 traffic. The anticipated completion date is the fall of 1977. The average daily traffic count at the existing bridge is about 18,000 based on average weekday traffic in 1974. An influx of tourists during the summer and especially on weekends causes peak traffic counts somewhat higher than the average. As a vacation area in general Door County is very popular with residents of eastern Wisconsin and the Fox River Valley. The Milwaukee and Chicago metropolitan areas contribute heavily to park visitations on the peninsula. Distances from Sturgeon Bay to population centers are listed as follows:

City	Distance	Population
Chicago	233	3,500,000
Milwaukee	141	717,300
Madison	175	172,700
Green Bay	43	90,000
Wausau	136	32,800
Appleton	73	56,300
Oshkosh	93	53,100
Fond du Lac	104	35,500
Manitowoc	62	33,400
Sheboygan	89	48,400
Rockford	215	145,000
		(Almost 5 Million Total)

B. Record of Property Creation

Whitefish Dunes was first recommended as a park site in 1937 by the noted landscape architect and naturalist Jens Jensen. At this time the State Conservation Commission first expressed interest in the area. Notable actions since that time include:

1939 - State Planning Board and the State Conservation Commission in cooperation with the U. S. Department of the Interior recommended the dunes area for consideration as a state botanical scientific area.

1946 - State Planning Board recommends 1,200 acres of acquisition spanning the area from Whitefish Creek to Cave Point as an addition to the State park system.

1959 - National Park Service recommends Whitefish Bay area as number one site along Wisconsin's Lake Michigan shore for park purposes.

3-15-65 - Acquisition proposal defeated by County Board by 14-12 vote.

9-8-66 - Sevastopol Town Board adopts resolution opposing the park due to loss of tax base.

10-24-66 - State Conservation Commission approves "limitations on development" resolution drafted at 8-29-66 Sevastopol meeting.

11-14-66 - Proposed dunes acquisition defeated by County Board by 12-8 vote. Advisory county referendum scheduled for April 1, 1967.

4-4-67 - Proposed park gets support of County residents in referendum by 331 votes (2,714 - 2,383).

5-17-67 - Private property totalling 83.20 acres in proposed park area deeded to Town of Sevastopol.

6-20-67 - County Board approves Whitefish Bay park 11-10.

7-21-67 - State Conservation Commission votes to approve acquisition of 821 acres for Whitefish Bay State Park. (See Item 1, Appendix B)

4-4-68 - Sevastopol Town Board tables motion to sell Town property to State.

10-30-75 - Condemnation of Hansen property approved by Natural Resources Board.

11-17-77 - Donation of 80 acres from Nature Conservancy approved by Natural Resources Board and park boundary modified to include the tract.

C. Present Use and Management

The approved acquisition goal of Whitefish Dunes is 821 acres, of which 646 acres are currently state owned, making the property 79% complete. These figures include the recent acquisition by eminent domain proceedings of the George Hanson et al property of 360.06 acres. In the near future, 82.4 acres of prime dune area are proposed to be acquired.

The Town of Sevastopol has shown an active interest in the preservation of the sand dunes acquired by gift from Eric Ulm. The deed restrictions designate it as a "Dunes Preservation Area". All public use of the area was limited by resolution to further protect the dunes.

The major uses of the lands within the park boundary now are recreational. Cave Point County Park is a popular scenic overlook of Lake Michigan. A limited amount of picnicking is done there and some fishing from shore for trout and salmon is done.

The land owned by Sevastopol is used in part as an access point to the sand beach of Lake Michigan. No developed facilities are available at this site except for an informal parking lot at the intersection of two town roads. On busy weekends 90-100 cars have been parked in the vicinity indicating use by up to 350 persons at one time. Unauthorized use of the dunes area is common. Under state park management no off-the-road vehicles will be allowed. They are prohibited on the Town of Sevastopol land at present, but enforcement of the rules is not effective.

D. Description of the Site

The landform of Whitefish Dunes State Park has two distinct provinces. Part of the northeast portion of the site is relatively flat and very rocky at the surface. This condition is due to very shallow soils with bedrock, at or near the surface. The rock is the limestone of the Niagara Escarpment. This escarpment is the rock layer upon which all of the Door peninsula was formed. The shoreline along this part of the park is rocky with sheer cliff faces towering above the water's edge 20' in some parts. Wave action is slowly eroding and undercutting the rock into caverns in the rock face. For this reason the place was named Cave Point.

Southwest of Cave Point there is a distinct point of transition from rocky land to sand dunes and sandy soil at the surface. The dunes are further subdivided into an active zone and a stabilized zone. In the active zone

there is relatively little vegetation growing and the dunes continue to be reshaped by wind and wave action. In the stabilized section vegetation has prevented building and erosion of the dunes.

The difference between the rocky land and the sand dune area is also reflected in the character of the Lake Michigan shoreline. At the southern edge of Cave Point the jagged rocky shoreline abruptly becomes a smooth sandy beach which extends along the remainder of the shore within the park boundary. (See Item 2, Appendix B)

The main soil types occurring on the site are well drained loams, fine blowout sands, poorly drained loamy sand, and muck. In general, the well-drained loams are found on the northeast side of the park in the vicinity of Cave Point, and are very thinly distributed over bedrock (see simplified soils map in Appendix A.) The fine blowout sands, make up the bulk of the dunes and their surroundings. Larger particle beach sand makes up the shoreline directly adjacent to the dunes. The heavier particles remain on the beach and are washed and reduced until they too become light enough for wind transport. To the north of the dunes, along Clark Lake are found the muck soils and the poorly drained sandy loams. Poorly drained loams also occur along Whitefish Creek, to the West.

Limitations caused by soil types fall into two general categories: mechanical and sanitary. Park facility design should carefully consider this when planning structures, roads and sanitary facilities. Most serious difficulties would probably occur in areas of organic and poorly drained soils and in areas where a very thin mantle of soil prevents septic systems from functioning safely.

The forest cover of the park ranges from northern hardwoods, to cedar swamp, to pine plantation. (see forest cover map in appendix A) The most significant stands of northern hardwoods are located in the northeast section of the park in the vicinity of Cave Point. The main tree species found here are hard maple, birch and beech. The area has been harvested in the past and shows a good crop of new saplings as well as enough mature trees to provide esthetic value. A number of over-mature trees are also present.

The cedars occur mixed with fir and hemlock along the southern shore of Clark Lake. The presence of old logging roads and saw-cut stumps indicates some past harvesting, probably for log cabin materials. Cedars also grow along Whitefish Creek and along the wave-drenched Cave Point shoreline.

Vegetation on the sand dunes ranges from upland brush types to northern hardwoods which have stabilized the dunes. A more detailed description of the dunes association will follow later.

One of the more unique plants found scattered throughout the site is Canada yew (Taxus canadensis), an understory plant. This shrub is not common in most northern parts of Wisconsin because it is a preferred deer browse material.

There are a number of plants found at the park site which are restricted in their growth to the beach and dunes environment of the Great Lakes. According to DNR Technical Bulletin #92 entitled "Endangered and Threatened Vascular Plants in Wisconsin", a number of plants found at Whitefish Dunes are either endangered or are threatened. (See Item 3, Appendix B)

Mammal species with hunting value found and observed on the site include deer, fox, raccoon, cottontail rabbits, snowshoe hare and squirrels. It is estimated that the deer population does not exceed 10-15 animals per square mile. There has been no evidence of plant suppression from over-browsing by deer either summer or winter.

There are no uncommon wildlife features such as rookeries or deer yards located on this site, and no rare or endangered animal species are known to inhabit the park. A partial bird list is located in the appendix. It includes transient species, wintering species and breeding or resident birds found in the area. (See Item 7, Appendix B)

Lake Michigan

Lake Michigan is a hardwater lake with a maximum depth of 840 feet. Bottom types in the Door County section are predominantly bedrock on exposed shores and sand within the bayheads and shallow shores. There are numerous outer reefs of bedrock, which are irregular and have varying depths. The water level of the lake goes through a cyclic change which is about 11 years in length. The base datum level is 576.8 feet above mean sea level. At the time of this writing the level is fairly high, being about 580' above sea level. During periods of low water the beaches are greatly expanded; and during high water they are reduced. The all-time low level is 575.35 occurring in 1964. Water levels are beginning a downward trend.

Lake Michigan adjacent to Whitefish Dunes Park provides excellent fishing. Trolling in April-May is successful for brown, brook, and rainbow trout. Shore-fishing is also productive. Thousands of trout have been stocked annually just north at a town park, Schauer Park.

Lake trout and whitefish frequent the areas off shore, and commercial pound nets are often fished off Cave Point and off the sand to the south.

Clark Lake

Clark Lake is the deepest of the inland lakes of Door County, at 25 feet. Its area is 868 acres and has a bottom comprised primarily of sand, rock and marl. The deeper areas have a muck bottom.

The area bordering Whitefish Dunes is very shallow and consists of sand and Marl. Emergent vegetation, primarily bulrush, grows extensively in this area and the beds, extends hundreds of feet lakeward.

The fishery of Clark Lake, consists of walleye, northern pike, smallmouth bass, perch, bluegill, rockbass, and carp. Of these full-time residents, walleye are the dominant predator, and rock bass the most successfull panfish. (See Item 4, Appendix B)

Two township boat ramps provide boat access, parking is adequate but only if roadside shoulders are utilized.

Overall, Clark Lake is a clean, stable lake of low to medium productivity. Heavy cottage development may be contributing nutrients, but the Logan Creek inlet brings in huge amounts of water each spring and the exchange rate of Clark Lake is so high that it may be responsible for its lower than expected productivity.

The level of Clark Lake is controlled by a dam and summer levels are to be maintained at 97.80 feet, winter levels at 96.25 feet.

During high water Lake Michigan fish enter the lake via Whitefish Bay Creek. Migrants include white suckers, sturgeon suckers (longnose), rainbow, brown and brook trout, carp and alewife.

Whitefish Bay Creek

A short, 1.1 mile outlet stream which drains Clark Lake into Lake Michigan. Rather slow moving at the outlet, the gradient picks up where the west branch feeder joins the Creek. It has a resident fishery of rock bass,

johnny darters, white sucker, mottled sculpin, northern pike, and rainbow trout. The latter actually reproduces in the Creek (or its tributary) and thereby becomes one of only a handful of Lake Michigan tributaries in Wisconsin capable of supporting trout.

It receives heavy runs of rainbows each spring, followed by northern pike, suckers, smelt, and alewife.

Sport fishing is an important use and it receives heavy pressure in April-May. (See survey in appendix B)

Ground Water

Groundwater is readily available at the park site as attested by several private wells in the area. (See Item 5, in Appendix B)

E. History of the Area

Prior to white settlement of the Door Peninsula, the area was inhabited by many different Indian cultures, including the Menominee, Fox, Winnebago, Potawatomi, and Iroquois. The Potawatomi Indians had a large village known as "Mechingin" in the vicinity of the present village of Jacksonport, three miles north of the park.

The first permanent white settler of the present Township of Sevastopol was John Clark, who settled in the vicinity of Clark Lake in 1838.

The area comprising the park was never farmed. Portions of the northern portion of the park were selectively logged in the 1920's. The Algoma Lumber Company planted red pine in the 1960's on a portion they owned in the west end of the property. Some trees were sold as Christmas trees. Local residents and landowners removed timber for firewood prior to the establishment of central heating systems.

II. RESOURCE ANALYSIS

A. Potential for Forestry or Agricultural Production

The area within the park was never farmed due to its stony and sandy characteristics.

In the wet areas near Clark Lake cedars have been cut and probably were used to build cabins by early settlers. In the Cave Point area the timber type is basically northern hardwoods. The area shows evidence of past logging for birch, beech and hard maple. There is a good regeneration of maple saplings taking place. There are also enough larger maples and birches to give the woods a good appearance. The potential exists for timber harvesting in the future.

Other areas of the park have lesser degrees of suitability for forest crop production. There is one 40-acre red-pine plantation in the southeast end of the park. Native vegetation in most other areas, where size permits, could probably be harvested for pulpwood. (Refer to forest cover map and index in appendix A)

B. Fish and Game Potential

Hunting opportunities are restricted in this area due to posting of private lands and the low abundance of game species.

The production of fish in the waters associated with the park is reflected by heavy fishing pressure, particularly on Whitefish Creek and Lake Michigan. Thousands of trout and salmon have been planted in Lake Michigan causing an artificial population. Spawning is not successful, but the rapid growth rate of these planted fish attests to other favorable conditions. Except for limited spawning of rainbow trout in Whitefish Creek, Lake Michigan stocked trout and salmon do not spawn successfully. The fact that whitefish are harvested off the shore also indicates productivity of that species.

Invertebrates found in Whitefish Creek including stoneflies and caddis flies indicate good water quality. The clear Creek water and absence of habitat cover precludes much of a trout population. Nevertheless, evidence of natural reproduction of brook trout and rainbow trout was found. Productivity may be improved through certain management techniques. (list of invertebrates included in appendix)

C. Recreational Potential

Esthetic Appeal

Whitefish Dunes has long been known for its scenic shoreline. The esthetic qualities of the rocky shoreline are best exemplified at Cave Point where large waves crash against the cliff throwing showers of spray many feet into the air. The surface of Lake Michigan extends beyond the normal field of vision and disappears at the horizon, giving the impression of standing at the edge of an ocean.

The southern shoreline stretches in a gentle arc of sand beach visible for several miles. The contrast between the land side of the beach and the lake side provides visual interest. The contrast between the sand dunes and the flat plane of the water level serves to increase the effect.

Nature study and interpretation are potentially popular recreational modes on the site. There is a diversity at the park which can appeal to many people. Students of geology and geography are interested in the formation of the sand dunes and their relation to Clark Lake and its formation. The bay-mouth bar which formed the dunes area is a prime example in the fields of oceonography and hydrology. The vegetation of the dunes is of interest to botanists. All of these natural phenomena can be studied by amateurs, as well as professional naturalists. The potential is great for establishing a nature interpretive program for the public using a system of foot trails, interpretive signs and organized nature hikes led by a park naturalist.

Potential For Use

Water use potential at Whitefish Dunes could take several forms. Swimming is the most active use to which Lake Michigan will be put although the chilly water will limit swimming at times. Under certain wind conditions water temperatures near shore are more favorable for swimming. Passive use such as watching the waves crash against Cave Point, sunbathing or walking along the shoreline will be as popular or more so, than swimming.

Use of Lake Michigan for pleasure boating, water skiing, and boat fishing will not be significantly affected by the park since boat launching facilities cannot be developed. Surf fishing could be increased. This type of fishing is already productive along the park's shoreline. Public access for shore fishing will be available for those that want it.

Whitefish Creek, where it flows through the park provides seasonal fishing opportunities and although access is somewhat limited, use is high. It may be reached by car from one bridge crossing and on foot from the park. During periods of high water the stream is partially traversible by boat. The bridge crossing and the mouth of the Creek are not within the park boundary and, therefore, are not under DNR control. (Refer to ownership map in appendix A)

Clark Lake offers some water oriented recreation to the general public in the form of boating and fishing. Road-ends and commercial facilities make up the access points, and these are exclusive of the state park. Whitefish Dunes State Park does have about 2,500 feet of frontage on Clark Lake. This is largely made up of swampy shoreland and dense growths of white cedar, and would be difficult to develop. In addition, the cottage owners around the lake would rather not have the DNR develop any intensive use facilities on Clark Lake. Access on foot will still be possible for those park users that wish it, however.

Winter use of the park in the form of pedestrian modes has potential at Whitefish Dunes. The trails developed for summer use in hiking and nature interpretation hold promise for use in winter hiking, snowshoeing and ski touring. Complete shared use of these routes may not always be possible but in most areas they would correspond. Roads and parking lots of the warm-season use areas that would otherwise lie dormant all winter would be available for use for winter sports merely by keeping them cleared of snow. Places with ski trail potential include part of the cedar/ hemlock woods near Clark Lake, old roads and some areas along the beach and dunes. (See plan map in Appendix A)

III. MANAGEMENT PROBLEMS

A. Erosion by wind of the sand dunes is caused largely by the destruction of stabilizing vegetation. Indiscriminate use by both snowmobiles and motorcycles is evident. Careless foot traffic also causes damage. (See item 6 in Appendix B)

Erosion by water of the shoreline in sandy areas has been critical in some cases where dwellings were endangered. This was caused by high lake levels at the peak of the 11 year cycle. Vast amounts of sand were eroded from the shoreline and dunes. The erosion and replacement of the lake dunes follows closely the fluctuation in lake levels. As the waters begin to recede, and they have, the expanse of beach exposed increases and the fine sand particles are exposed to the winds and the process of dune-building begins anew. Evidence of dune building can be seen already.

B. Socio - Political Problems

Since the major emphasis of this project is on preservation and interpretation of the sand dunes use of motorized vehicles in these fragile areas is a serious problem. Since there has been use by these types of vehicles in the past a precedent has been set that will be a problem to eliminate initially.

Foot traffic on the dunes is not as serious as motorized traffic, but must also be controlled. Littering of the dunes area is also a problem.

The south end of the North-South road traversing the center of the site has an established reputation as a public use area. People park their cars there and walk down to the beach from there. There are no toilets or drinking water available, and there is no official supervision of use.

Existing town roads in the park will present access control problems, especially to the more fragile areas. Privately owned lands within the park boundary further complicate the problem since the landowners have a right to access to their property.

IV. RECREATION NEEDS & SUPPLY IN PLANNING REGION 8

Recreation needs as expressed in the State Outdoor Recreation Plan are not the sole measure of necessity for creation of state parks. Chapter 27 of the Wisconsin Statutes sets forth several other criteria such as public education in conservation, and nature study, as well as recreation. It also lists criteria for park selection as including scenery, plants and wildlife and historical archaeological and geological significance. The State Recreation Plan, however, does contain some information on needs which can be satisfied at least in part at Whitefish Dunes. For Region 8 the general need emphasized is for protection of the Lake Michigan shoreline.

Specific recreational needs indicated in planning Region 8 which are pertinent within the context of Whitefish Dunes are:

A. Swimming - There are deficiencies in the supply of swimming opportunities within the region due to distribution of lakes, water quality of these lakes and water temperature. Although Lake Michigan would seem to offer nearly unlimited swimming opportunities, its low water temperature reduces the enjoyment for many people. There are very desirable activities associated with the lake which are valuable from a recreational standpoint. Lake Michigan's sand beaches are well suited to sunbathing, jogging, playing in the sand and other associated uses.

Clark Lake may have some potential for swimming, and the park does include frontage on Clark Lake, but there is a desire on the part of lakeshore landowners to keep public access of any kind off the lake. This desire has been reflected in the conditions set forth in the resolution by the Town of Sevastopol which agreed in principle to creation of the park. (See Appendix C for copy of resolution)

Lake access for swimming and the associated uses mentioned could be provided at Whitefish Dunes.

B. Boating Use

Offshore boating use on Lake Michigan is limited to larger sized craft than normally encountered on inland lakes. Smaller craft are used near shore and during calm weather. Two public boat landings exist near Whitefish Dunes. A 1976 survey sponsored by NOAA notes a general need expressed for more boat launching facilities along Lake Michigan. Two launch sites already exist, each 1 mile or less from the park, however.

Public boat access to Clark Lake is presently available at an improved boat landing. Clark Lake use includes fishing, water skiing, and fishing.

C. Camping

Private enterprise provides 50% of the camping opportunities in planning Region 8. State and county facilities account for most of the other facilities. A deficit in primitive sites has been noted. Some primitive type of backpack camping might be possible at Whitefish although the size of the park prevents a true wilderness camping experience. This type of camping generates very little revenue, and does present extra maintenance and supervision needs.

D. Picnicking

Regionally speaking there is an adequate supply of picnic areas. However, the state park will create its own demand for picnic facilities due to the attraction of visitors using other park facilities.

E. Sightseeing

The State Recreation Plan lists Door County in general and the Lake Michigan Shoreline as the main scenic resources of Region 8. Protection of the scenic resource and access to it are the main techniques for providing sightseeing opportunities. Visual attributes of Whitefish Dunes will be available mainly through pedestrian means. Good resource management requires that direct road access to the shoreline be minimized.

F. Hiking

The more heavily populated areas of Region 8 are places where a deficiency of hiking trails exists. As with picnic facilities, hiking trails can create part of their own demand. They are used for both pleasure walking and for nature study and observation. Opportunities to develop hiking trails utilizing old roads and the lakeshore as component parts exist at Whitefish Dunes.

G. Ski Touring

Preliminary indications are that an increasing need for ski touring trails will be noted in Region 8. Suitable topography and solitude are the primary requisites for good ski touring. Whitefish Dunes State Park has these attributes and will be able to help meet some of the regional ski trail needs. Several miles of trail could easily be developed using abandoned roads and possibly some lakeshore.

H. Snowmobiling

A need for increased snowmobile trail mileage has been indicated in Region 8.

I. Bicycling

A need for increased off-road bicycling exists now in Region 8.

J. Nature Study

A need for natural areas where the relatively passive recreation of nature study can be pursued exists in the region. Parks such as Newport State Park and Rock Island help provide such areas. Whitefish Dunes, due to its theme of preservation and nature interpretation would lend itself to recreational nature study easily.

V. MANAGEMENT AND DEVELOPMENT ALTERNATIVES

A. Total and exclusive preservation of the site could be used as a management theme. It would mean that all areas of the property would be left undisturbed in the future. Designation of the whole property as a scientific area or natural area would be the most expedient means of accomplishing this. Under this type of land use designation no recreational facilities whatsoever would be developed.

B. Limited development with a primary emphasis on preservation and interpretation of the site features would provide a variety of benefits. By placing limitations on the extent of physical development of the park the overall impact of public visitation could be controlled.

Interpretation of the site's natural features, particularily the dunes, would be accomplished through the use of nature trails. Self-guiding trails could be used, with a seasonal naturalist giving guided tours during times of heavy park use. When not enough visitors use the park to warrant guided nature hikes, the self-guiding trail could still provide an interpretive experience. Trail routes and construction would be designed to minimize adverse impacts on the natural environment especially in the dunes area.

Recreation and administrative facilities would be concentrated in the wooded area in the northern part of the park and would include the existing facilities at Cave Point. Additional parking, roads, toilets and drinking water would be provided. A combined park office and nature center would also be added. All traffic flow into and out of the use area would be controlled at the park office.

C. An intensively developed park at Whitefish Dunes would take the form of large-scale water oriented recreation. A formal swimming beach and bathhouse would be provided as well as a boat launching ramp developed for use with medium to large trailerable power boats. Boat trailer parking for 50 units would be built.

Other facilities would include scenic picnic areas equipped with shelters and toilet buildings and having vistas overlooking Lake Michigan. At least 30-35 acres of land would be needed plus added acreage for 500 car capacity parking. A system of roads would connect the use areas and parallel the lakeshore throughout the park.

In order to maximize all-season use of the park a loop snowmobile trail would be laid out incorporating existing park trails, abandoned roads and new trails. Connections with existing exterior trails could also be made. A set of toilets would be kept open and one of the picnic shelters would be enclosed for winter use.

Family tent/trailer camping would increase the utilization of Whitefish Dunes State Park. Several relatively flat areas exist where a campground of 80-100 units could be developed. Toilets, drinking water and picnic tables would be provided plus garbage cans and fire rings. The availability of such a facility would add considerably to the popularity of the park.

VI. ANALYSIS OF ALTERNATIVES

Although a large number of alternatives exist in theory all are variations of the three listed above, differing only in degree.

A. Total and exclusive preservation. Clearly there are parts of the park site which need absolute protection from disturbance. There are also areas which can tolerate recreational use, and some areas such as Cave Point and the sand beach which lend themselves very well to park use. Alternative A is unnecessary and overly restrictive.

B. Primary emphasis on preservation of the parts of the park that need to be protected, while providing a limited amount of recreational development. The development must be limited for two reasons. First, the recreation areas themselves are limited in scope and can sustain only moderate use. The soils are generally shallow, and the dense tree canopy in some places makes turf difficult to maintain under heavy use. Secondly, levels of public use should be moderated to prevent a general influx of visitors at peak times from spilling over into the areas designated for preservation. If large numbers of visitors are in the park it would be difficult to keep them from entering the dunes area and causing damage. Some controlled access to the dunes should be provided for.

C. Intensive recreational development would have an advantage of generating revenue. This must be considered since 60% of park revenues come from user fees. There are some serious disadvantages to this alternative, though. Degradation of the site would be apparent after only a few seasons of use. Some of the restrictions set forth in the resolutions of 1967 were directed specifically at preventing this type of intensive development. The Scientific Areas Preservation Council has expressed support for measures of protection. It would seem inappropriate to go ahead with intensive development.

VII. RECOMMENDED ALTERNATIVE

Alternative B is recommended. "Limited development with primary emphasis on preservation and interpretation." The discussion of alternatives in the preceeding section leads logically to the selection of this alternative. The needs for preservation and the precedents set by previous actions emphasize preservation. The many recreational needs expressed in the state recreation plan are clear. The recommended alternative is an equitable blend of development and preservation, with preservation being the primary theme. In applying this alternative the recreation facilities that are developed should be done with the least possible disturbance to the site, and only those activities that are compatable with the site should be provided.

VIII. GOALS AND OBJECTIVES

A. The primary goal of Whitefish Dunes State Park will be the preservation the dunes and their unique plant communities. Secondary goal is the provision of recreation facilities compatable with a preservation-oriented park, with education and interpretation of the dunes and other aspects of the park.

B. Objectives

1. Preservation of dunes and sensitive areas.

2. Make proposed development compatable with preservation theme of park.

3. Design a facility with limited expansion capabilities.

IX. PROPOSED ACTION

A. Land acquisition. The ownership map in appendix A shows the park boundary and the various parcels of land state owned, privately owned and that owned by the Town of Sevastopol. Acquisition is 81 percent complete. Of the 901 official acreage goal 727 acres is presently state owned. This includes the land recently acquired from Hansen et al and 80 acres donated by the Nature Conservancy. Negotiations are underway to acquire the land owned by the Town of Sevastopol. The town has indicated that part of this land could be purchased by the state and part donated. Total acreage of the town land is 82.4.

Several small lakeshore lots, and Cave Point County Park remain to be acquired.

When acquisition is complete the department will need control over all roads within the park boundary except the through road as agreed to in 1967. It is important to emphasize that road access will be provided to privately owned properties within the park boundary until such properties are acquired. If the Town of Sevastopol releases all roads DNR will maintain and keep open such roads as necessary for access to private land within the park.

In considering priorities for completing land acquisition the highest priority should be given to those properties that, through their need for road access, delay development of the use facilities of the park. These are primarily the lakeshore properties near Cave Point, Cave Point itself and the lands of the Town of Sevastopol.

B. Development

The overall development of the park is shown on the development map included in Appendix A. It shows the layout of the park as it will look when development is completed. Features of the plan include scientific area, development area and natural area. General trail routes are shown, but may be modified in actual practice to follow a path of lesser impact or greater significance.

Development zones are shown where development could take place with the least amount of impact. The area shown as "Scientific Area" has been identified by the Scientific Areas Preservation Council as desirable for preservation.

Other features of the plan are blacktop paved roads and parking areas, picnic and scenic areas, toilets, changing stalls for bathers, a service access to the beach drinking water and other features generally associated with the permanent use area. A nature center combined with the park office is shown. The actual design may vary but the general concept will remain the same.

A temporary use facility based on an area of existing public use is shown on the development plan. The temporary use area will be used primarily as an access point to the beach. During the period of time needed to begin and complete construction of the permanent park facilities the temporary use area will provide limited recreation. A precedent of public use has been established by the Town of Sevastopol which tolerates this use. No facilities other than an informal parking lot are presently in existence at the site. In order to provide for more manageable public use, sealed vault toilets will be installed. When the permanent use area of the park is developed this temporary use area will be eliminated. All structures will be removed and measures will be taken to return the land to a natural appearance.

The development of Cave Point has not been placed in any particular phase, but could be added to II. Acquisition is the key. Total cost for both phases of development is anticipated to be about $350,000.

C. Management

Land use management is an integral part of this plan. The land use is based partially on the zones set up for the park shown on the development map as Scientific Area, Recreation Area and Natural Area.

Vegetation management will be kept minimal. Preservation rather than manipulation will be stressed, meaning the continuation of natural succession of plant communities. The 40 acre pine plantation located in the southwest of the park should be managed to preserve its beauty and prolong the life of the stand.

Hunting in the park is limited by statute. Deer hunting can be allowed under permission by the Natural Resource Board when the size of the deer herd becomes detrimental to the site or when starvation is a problem. All other hunting and trapping is prohibited.

Fish management relating to the park is compatable in most cases since fishing is generally not prohibited. Fishing will make up a significant part of the use of the park. Management of Lake Michigan, Clark Lake and Whitefish Creek will take place largely on an independent basis from the park. Where special projects are involved the park superintendent and the area fish manager will cooperate whenever possible.

D. Operations and Maintenance

Operation of the park during 1977-79 will consist of (1) providing limited services to visitors, (2) providing enforcement patrols required to protect fragile dunes areas and (3) maintaining limited temporary facilities provided for the visitors.

A park superintendent and approximately 1-man year of LTE time has been assigned to the park to provide necessary services including enforcement patrol, litter and garbage pickup, initial signing and sign maintenance, and building maintenance.

Estimated Annual Cost - 1977-79 Biennium

Park Supt. - Permanent	$11,000
Limited Term Employees	6,230
Fringe Benefits	3,400
Supplies and Services	5,170
Capital Purchase	4,000 (1)
TOTAL	$29,800

(1) A one time expenditure of approximately $4,000 will be made in 1977-79 to purchase the necessary small tools and equipment required to initiate operation of the property.

An annual capital investment of $300 will be required.

Operation of Whitefish Dunes in the 1979-81 biennium will continue at the 1977-79 level.

Increasing inflation would require an upward adjustment of these figures.

E. Anticipated Park Use

An annual visitation figure for Whitefish Dunes of 150,000 has been estimated. This takes into account both the traditional summer season plus the anticipated winter use of the park and the heavy seasonal usage by fishermen of the Cave Point shoreline. The number stated represents the estimated use after the park is completely developed and has operated for 3 to 5 years.

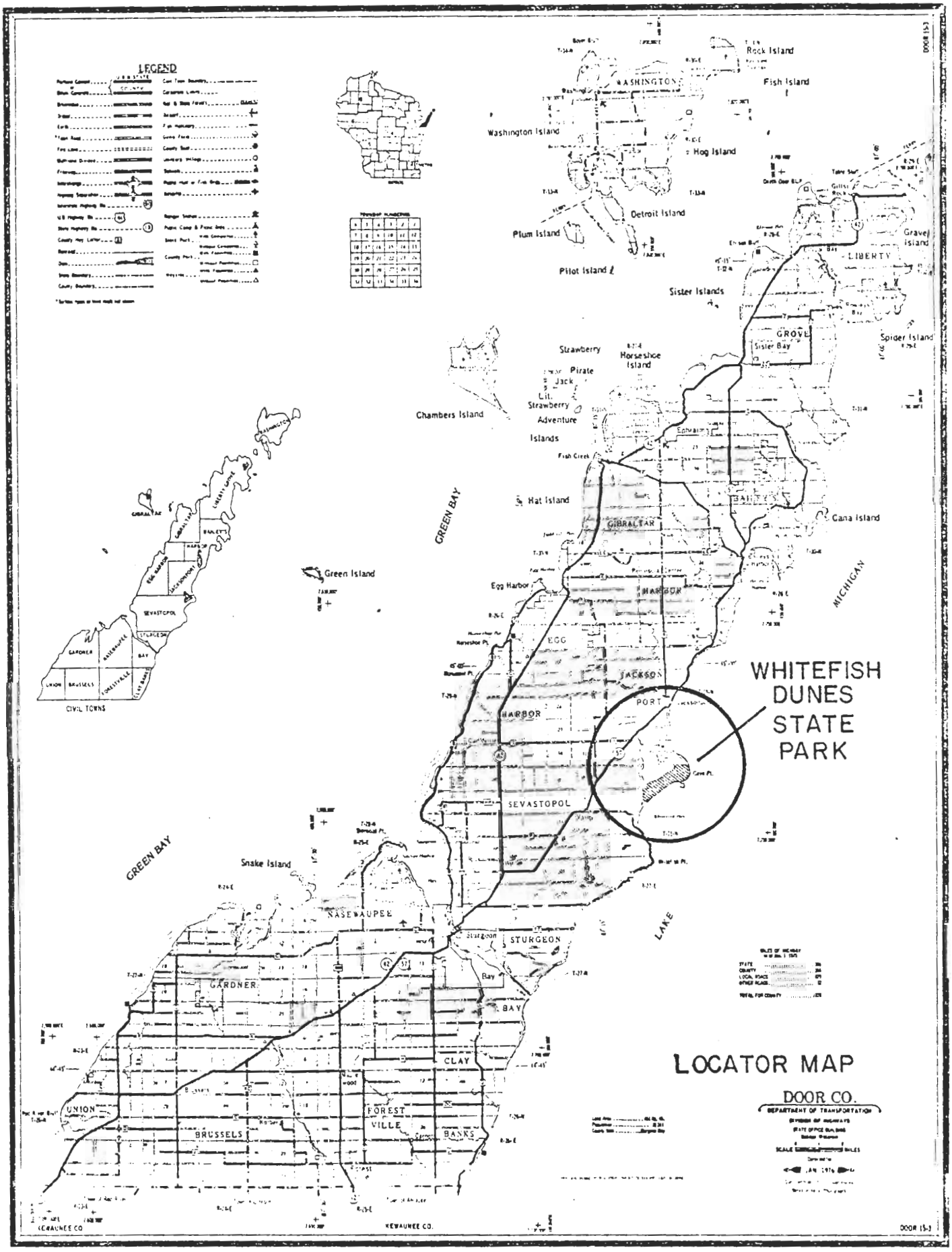
Development Costs

Phase I	TEMPORARY USE AREA	
	Moving and installation of mobile home office (includes Magic-flush toilet or Ecolet composting toilet)	$2,000
	Roads and parking	
	1/2 mile 2-way gravel road	18,000
	400' 1-way gravel road	2,500
	40 cars gravel parking	4,000
	Entrance marker sign	200
	Well with hand pump	4,000
	Install 1-unit pit toilets	1,000
	Take-down change stalls	4,000
	Utilities for office (electric & phone)	300
	Garbage cans and holders	500
	TOTAL - TEMPORARY USE AREA	$46,000
Phase II	PERMANENT USE AREA	
	Roads and parking	$155,000
	Park entrance visitor station & utilities (1,500 sq. ft. @ $40/sq. ft.)	60,000
	2 picnic shelters (force account)	12,000
	8-unit pit toilet w/change stalls attached	18,000
	Entrance sign	3,000
	6 miles hiking, ski, and nature trail	10,000
	nature interp. signs, etc.	1,000
	6 acres site preparation	6,000
	High capacity well and 250' waterline, fountain	9,000
	Shop/storage building and utilities	30,000
	Garbage cans, tables, grills	5,000
	TOTAL - PERMANENT USE AREA	$304,000

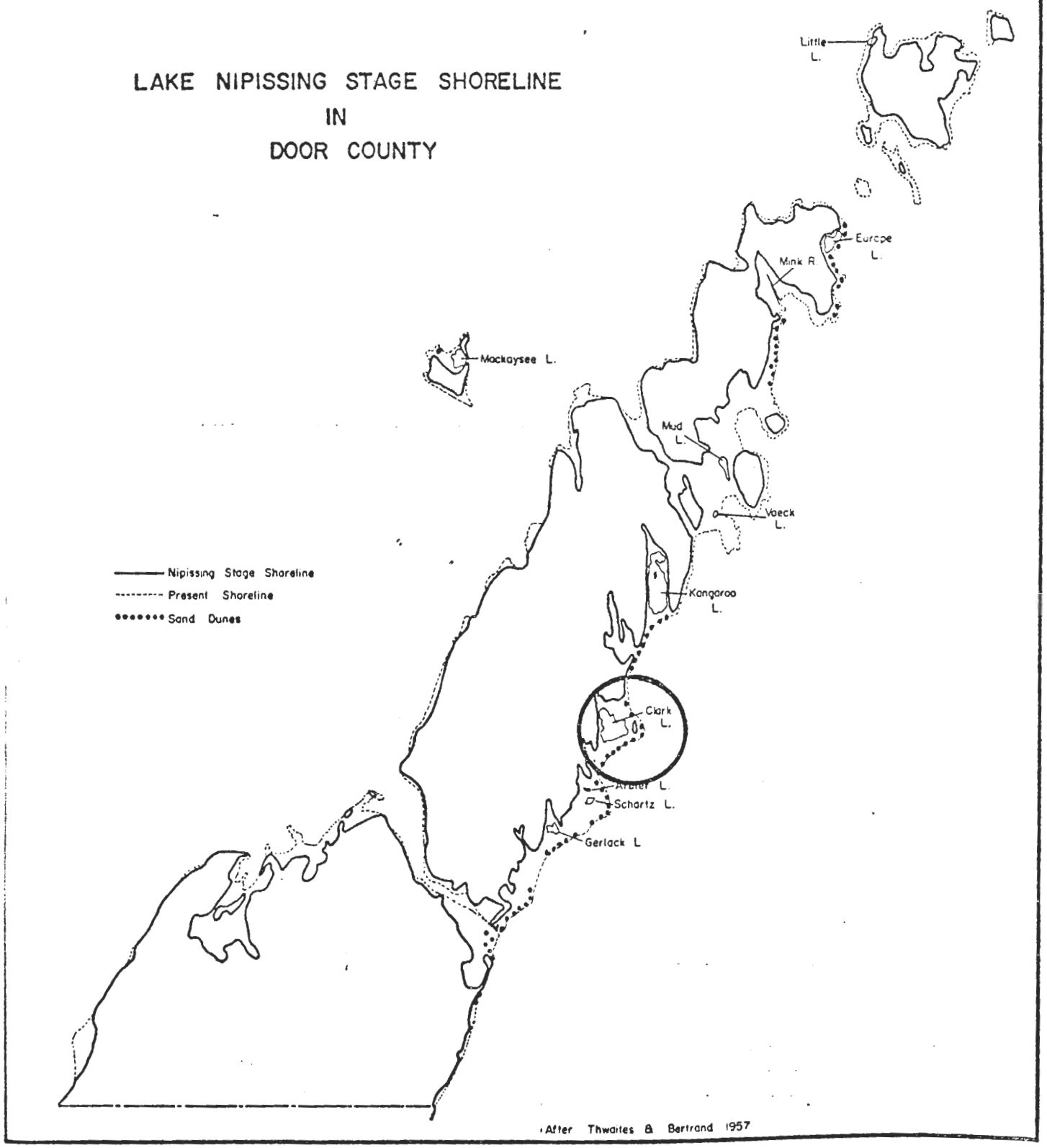
SUMMARY

Temporary Use Area	$ 46,000
Permanent Use Area	304,000
GRAND TOTAL	$350,000

Appendix A


LEGEND
Rock Island
Fish Island
Washington Island
Hog Island
Detroit Island
Plum Island
Pilot Island
Gravel Island
LIBERTY GROVE
Sister Islands
Sister Bay
Spider Island
Strawberry
Horseshoe Island
Pirate
Jack
Lil. Strawberry
Adventure
Islands
Chambers Island
Hat Island
Cana Island
GIBRALTAR
Green Island
Egg Harbor
EGG HARBOR
JACKSON
PORT
SEVASTOPOL
WHITEFISH DUNES STATE PARK
GREEN BAY
MICHIGAN
LAKE
Snake Island
NASEWAUPEE
STURGEON BAY
GARDNER
CLAY BANKS
UNION
BRUSSELS
FOREST VILLE
CIVIL TOWNS
LOCATOR MAP
DOOR CO.
DEPARTMENT OF TRANSPORTATION
KEWAUNEE CO.
DOOR (5-)

LAKE NIPISSING STAGE SHORELINE IN DOOR COUNTY



After Thwaites & Bertrand 1957

Key to Vegetation Cover Types

UB	Upland Brush
LB	Lowland Brush
SC	Swamp Conifer
SH	Swamp Hardwoods
K	Muskeg
C	White Cedar
NH	Northern Hardwood
BW	White Birch
PW	White Pine

SIZE CLASSES - The predominate stand of each classified type is designated according to the following size classes: (The division between pole-timber and small saw-timber is 9 inches for softwoods and 11 inches for hardwoods.)

Symbol	Class	DBH	Height (1/)
0-1 (2/)	Seedling	Under 1"	1 - 20"
0-5 (3/)	Seedling & sapling	0 - 5"	1 - 40"
1-5 (2/)	Sapling	1 - 5"	20 - 40'
5-9 or 11	Pole-timber	5 - 9" or 11"	40 - 60'
9 or 11-15	Small saw-timber	9" or 11 - 15"	60 - 80'
15+	Large saw-timber	15"+	80'+

1/ Height commonly associated with diameters in well stocked even-aged stands.
2/ 0-1 and 1-5 classes may be combined to a reproduction (restocking) class 0-5.
3/ Combination of 0-1 and 1-5 to be used for compartment reconnaissance.

STOCKING CLASSES - Forest land classified by percent of growing space effectively utilized by trees with 10-39 percent rated as poor, 40-69 percent rated as medium, and 70 percent and over rated as good. Classification is based on net volume or number of trees as shown in the following tables.

Symbol	Density	Percent	Basal Area
'''	G - Good	70 - 100	86+
''	M - Medium	40 - 69	51 - 85
'	P - Poor	10 - 39	20 - 50

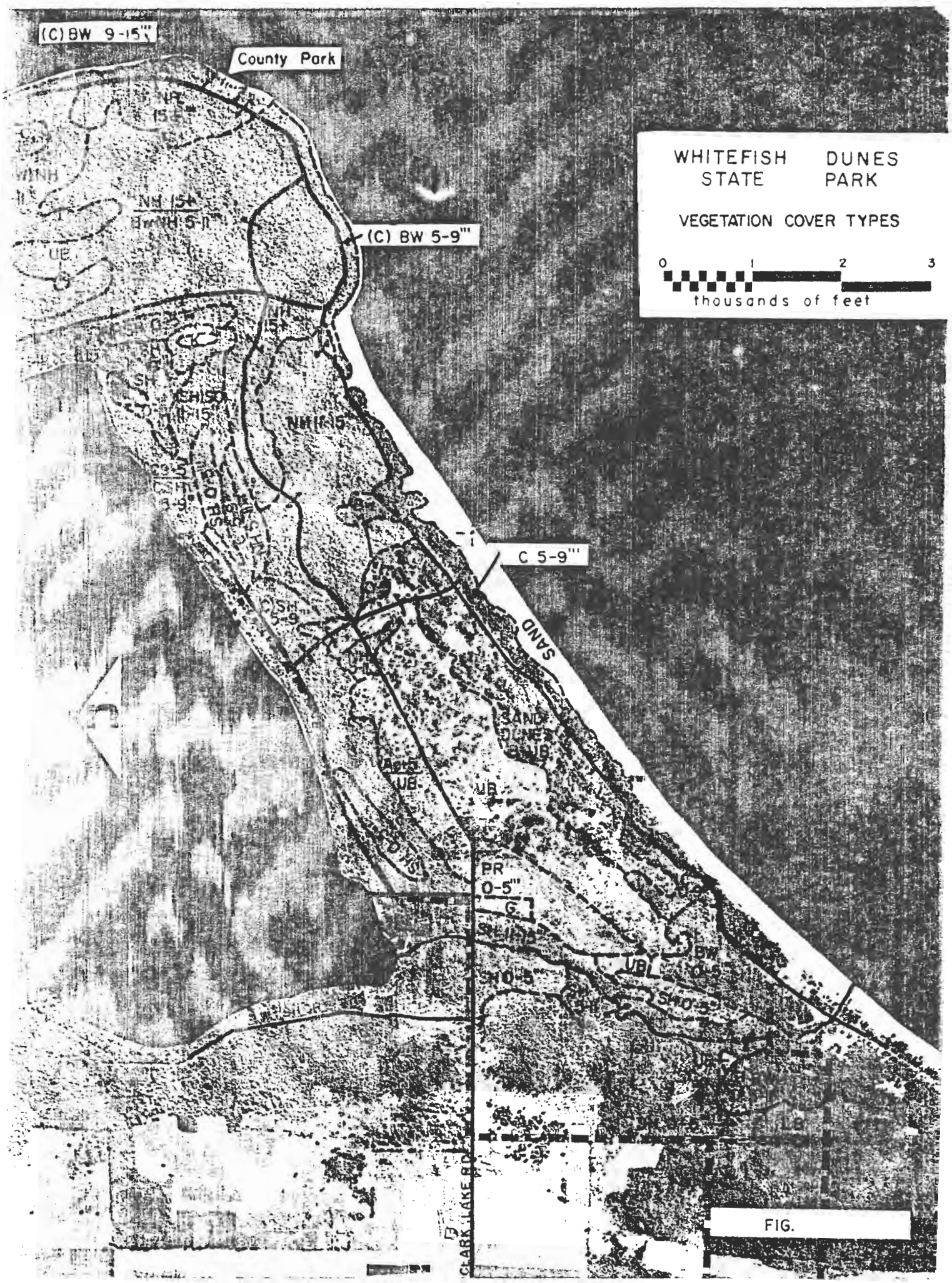
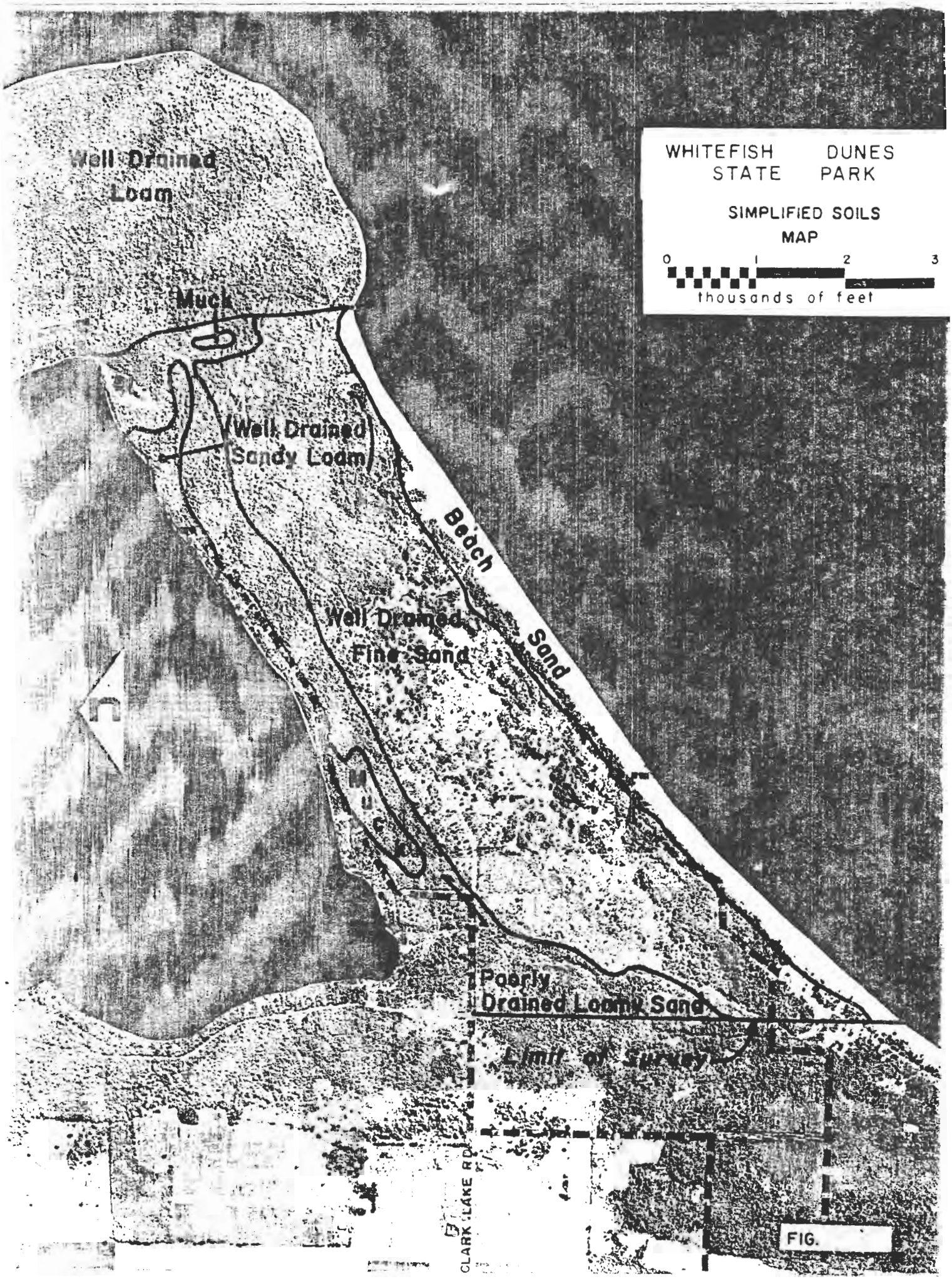
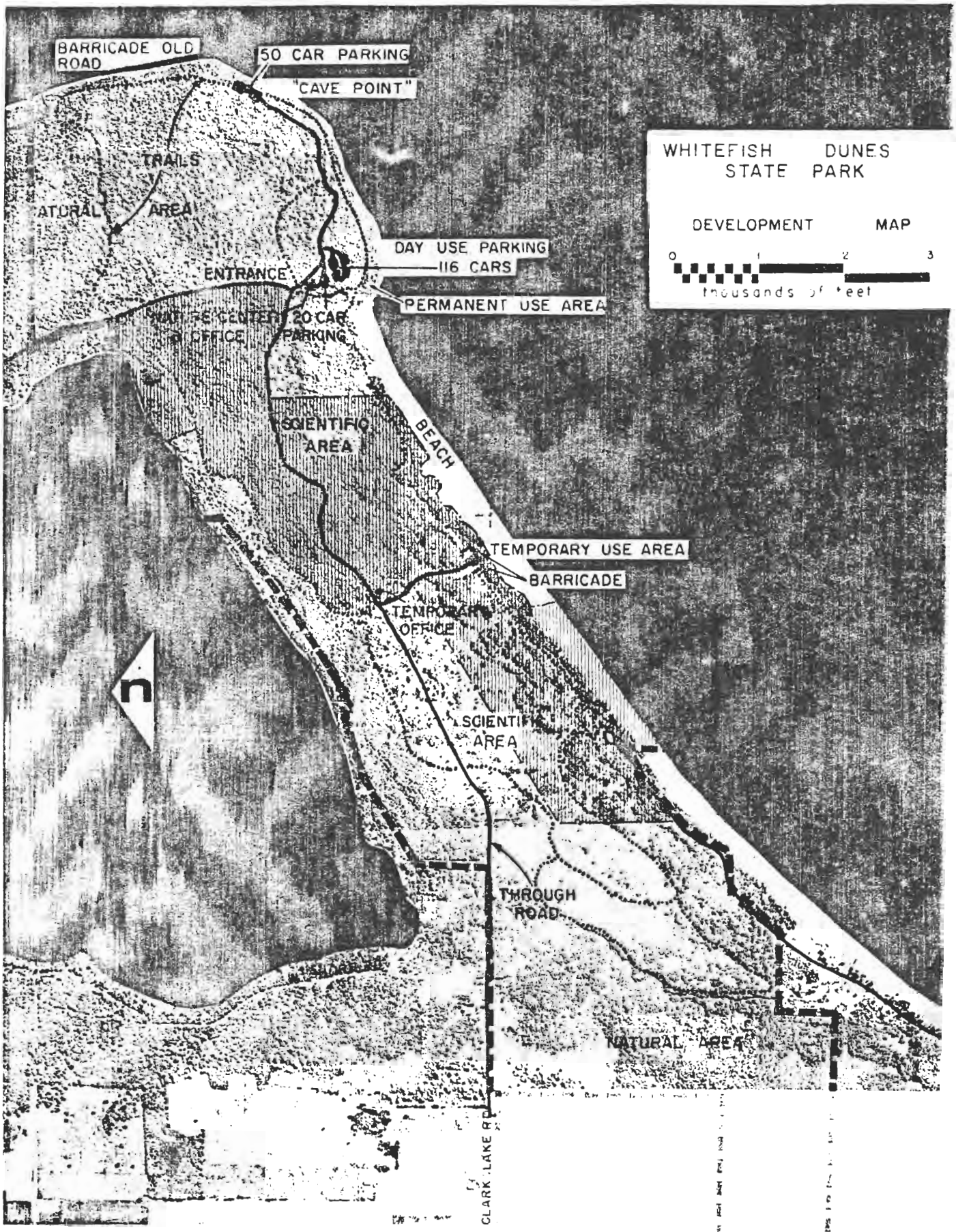
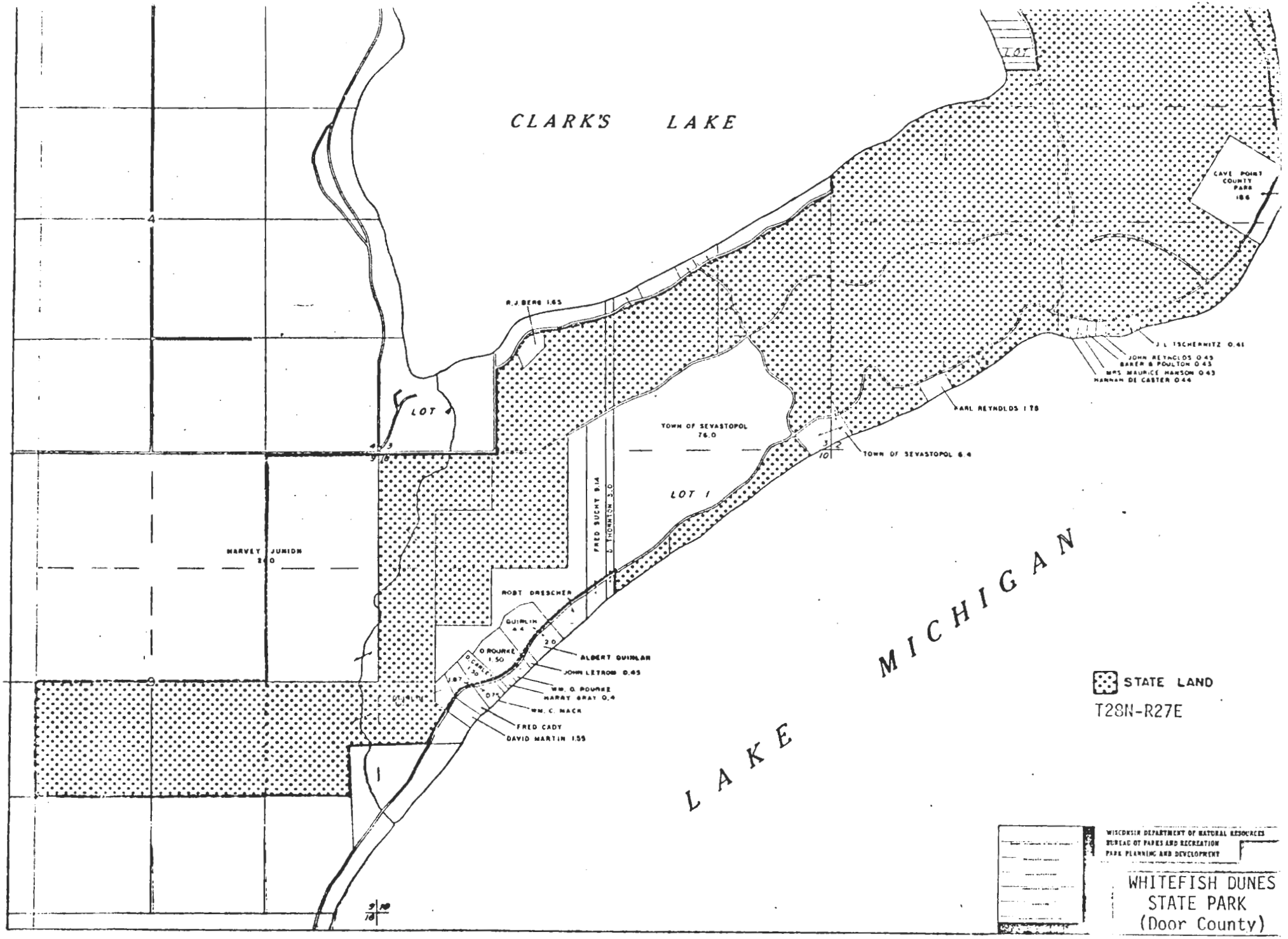

(C) BW 9-15'''
County Park
WHITEFISH DUNES
STATE PARK
VEGETATION COVER TYPES
0 1 2 3
thousands of feet
(C) BW 5-9'''
C 5-9'''
SAND
SAND DUNES
UB
PR
0-5'''
G
CLARK LAKE RD

FIG.


WHITEFISH DUNES STATE PARK
SIMPLIFIED SOILS MAP
0 1 2 3
thousands of feet
Well Drained Loam
Muck
Well Drained Sandy Loam
Beach Sand
Well Drained Fine Sand
Poorly Drained Loamy Sand
Limit of Survey
CLARK LAKE RD.
FIG.


BARRICADE OLD ROAD
50 CAR PARKING
"CAVE POINT"
TRAILS
ATURAL AREA
DAY USE PARKING
116 CARS
ENTRANCE
PERMANENT USE AREA
20 CAR PARKING
SCIENTIFIC AREA
BEACH
TEMPORARY USE AREA
BARRICADE
SCIENTIFIC AREA
THROUGH ROAD
NATURAL AREA
CLARK LAKE RD
WHITEFISH DUNES STATE PARK
DEVELOPMENT MAP
0 1 2 3
thousands of feet


CLARK'S LAKE
LAKE MICHIGAN
LOT 4
LOT 1
LOT
CAVE POINT COUNTY PARK 186
R.J. BERG 1.65
TOWN OF SEVASTOPOL 76.0
TOWN OF SEVASTOPOL 6.4
KARL REYNOLDS 1.78
J.L. TSCHERNITZ 0.41
JOHN REYNOLDS 0.43
BAKER & POULTON 0.43
MRS MAURICE HANSON 0.43
HANNAH DE CASTER 0.44
FRED SUCHY 9.14
D. THORNTON 3.0
HARVEY JUNION 2.0
ROBT DRESCHER
QUIRLIN 4.4
O ROURKE 1.50
ALBERT QUINLAN
JOHN LETROW 0.45
WM. O. ROURKE
HARRY GRAY 0.4
WM. C. MACK
FRED CADY
DAVID MARTIN 1.55
STATE LAND
T28N-R27E
WISCONSIN DEPARTMENT OF NATURAL RESOURCES
BUREAU OF PARKS AND RECREATION
PARK PLANNING AND DEVELOPMENT
WHITEFISH DUNES
STATE PARK
(Door County)

Appendix B

Appendix B

1. HISTORY

The establishment of Whitefish Dunes State Park as an official state project took place in July, 1967. The Conservation Commission passed a resolution patterned after a resolution received from the Door County Board in support of the park, thereby creating the project. The resolution referred to the increasing demand for public recreation, unusual scenic value of the site, the Door County Resolution, and a favorable Door County referendum as reasons for establishing the park. The resolution stipulated that it would be commission policy to preserve the site in as natural a condition as possible, and listed 8 conditions which would accomplish that preservation. (Refer to both state and county resolutions in the appendix). The conditions included making dune preservation the primary park goal, no camping in the park for ten years (expires in July, 1977), buffer zone, no concessions for ten years (also expires in July, 1977), a through road in the park, no boat landing or beach on Clark Lake and no beach for ten years (expires July, 1977), a naturalist program and road maintenance. Items with ten year clauses further stipulate that after the 10 years if the state wants to remove or modify the conditions a public hearing must be held in the Town of Sevastopol prior to Commission (NRB) action.

2. ORIGINS OF CLARK LAKE

This sandy area is actually a bay-mouth bar separating Clark Lake from Lake Michigan. During the last post-glacial period Lake Michigan was at a higher elevation caused by the melting glacial ice. This is known as Lake Nipissing, and Clark Lake was merely one of its bays. As the waters receded a bar of sand built up across the front of the shallow bay and eventually isolated it. As the waters dropped to their present level the sand was exposed and had a higher relative elevation, trapping water behind it to form what is now Clark Lake. The dunes are the result of the continuous influence of wind and wave action on the sands of the bar.

3. PLANT LIST

These plants are found mainly on the dunes, particularily on the lakeward edges. Included are:

Cirsium pitcheri - Dune Thistle - endangered.

Solidago spathulata - Dune Goldenrod - endangered.

Agropyron dasystachyum - (a grass) - threatened.

Calamorilfa longifolia - Sand Reed - threatened.

Euphorbia polygonifolia - Seaside Spurge - threatened.

Cakile edentula - Sea Rocket - threatened.

Viola rostrata - Long-spurred Violet - threatened.
(a plant of wooded dunes)

Ammaphila breviligulata - Beach Grass.

Lathyrus maripimus - Beach Pea.

Shepherdia canadensis - Buffalo Berry.

From a purely botanical standpoint Whitefish Dunes is quite interesting due to its diversity of plant communities ranging from a boreal climate along the lakeshore to near desert conditions behind the dunes, and from northern mesic forest to pine plantation. It is a site on which native plants thrive due to the shallow soil and dolomite bedrock, plants that have a preference for high pH soils. Small pockets of communities add interest. An alder thicket on a cutover cedar swamp, a conifer swamp with white cedar and hemlock, and a calcareous boggy shoreline on Clark Lake are all found within the park boundary.

4. FISH

Fishery surveys were done from April 8-12, 1976, using fyke nets to collect fish. Final tabulations indicate that Clark Lake has an adult walleye population of nearly 3,000 fish. Exploitation rate by anglers reached approximately 9% within 8 months after tagging. The walleye population is entirely self-sustaining and requires no maintenance stocking.

5. SOILS

The soils and geology of the Door Peninsula - and of the park site - present a special problem. Since the mantle of soil is so thin in most areas, and the bedrock is in fractured layers, bacterial contamination of wells can occur. One faulty septic tank can contaminate the drinking water of many wells by contaminating water flowing between the horizontal layers of rock.

6. DUNE BUILDING

When the fine sands are exposed the wind begins to remove them. The tallest dunes, the ones the park is famous for, are stabilized by vegetation and it is desirable to keep them stable. There are areas of active dunes, these are smaller in stature and probably won't grow very tall.

Erosion by water of the shoreline in sandy areas has been critical in some cases where dwellings were endangered. This was caused by high lake levels at the peak of the 11 year cycle combined with storm-lashed waves. Vast amounts of sand were eroded from the shoreline and dunes. The erosion and replacement of the lake dunes follows closely the fluctuation in lake levels. As the waters begin to recede, and they have, the expanse of beach exposed increases and the fine sand particles are exposed to the winds and the process of dune-building begins anew. Evidence of dune building can be seen already.

7. Bird List - Partial 1976

Ruffed Grouse

Barred Owl

Whippoorwill

Common Flicker

Pileated Woodpecker

Hairy Woodpecker

Downy Woodpecker

Green Crested Flycatcher

Wood Pewee

Purple Martin

Bluejay

Common Crow

Black Capped Chickadee

White Breasted Nuthatch

Red Breasted Nuthatch

Brown Creeper

House Wren

Winter Wren

Robin

Wood Thrush

Hermit Thrush

Veery

Golden Crowned Kinglet

Ruby Crowned Kinglet

Cedar Waxwing

Red-eyed Vireo

Appendix B

Black-throated Green Warbler

Cerulean Warbler

Pine Warbler

Ovenbird

Yellow-breasted Chat

Canada Warbler

American Redstart

Redwing Blackbird

Northern Oriole

Common Grackle

Brown-headed Cowbird

Rose-breasted Grossbeak

American Goldfinch

Dark-eyed Junco

White-throated Sparrow

Rufous-sided Towhee

Compiled by Prof. James Zimmerman

B.-8

Department of Natural Resources

INTRA-DEPARTMENT MEMORANDUM

STREAM SURVEY AND FISHING DATA

Green Bay
Station

Date August 12, 1976

IN REPLY REFER TO: 3610

TO: Lee T. Kernen

FROM: Ross Langhurst

SUBJECT: Stream Survey - Whitefish Bay Creek - Door County

On July 27, 1976, a stream survey was conducted on Whitefish Bay Creek. Invertebrates and insects were qualitatively sampled and the fish population was inventoried using a battery powered backpack shocker. The survey began 200 yards upstream of Cave Point Drive. On the day of the survey this was at lake level and flow was first noted. The survey included 400 yards of stream above this point.

Whitefish Bay Creek, the outlet of Clark Lake, flows through mostly cedar swamp to Lake Michigan. Bottom type of the area surveyed was 50% sand, 30% rock and 20% silt. The stream averaged 20 feet wide and 1.5 feet deep with an estimated flow at 2 cfs - quite sluggish. Except for a 100 foot riffle area the entire survey area is pool area with very little instream cover. The water was extremely clear and the rocks were coated with marl.

Fish Species

Eight species of fish were found, none of which were abundant. Extremely clear water and very little cover appeared to severely limit the fish population. Rock bass were most prevalent - twenty-five found ranged from 1.5 to 8.4 inches. Two brook trout found were 8.5 and 3.8 inches. One 7-inch rainbow trout was found along with approximately 25 young-of-the-year, seven of which averaged 2.1 inches. The yoy were found only in the riffle area. Ten yoy white sucker averaging 2 inches were found.

Other species found were mottled sculpin, johnny darter, one seven-inch northern pike, and one 3.2 inch perch. All fish were in good condition.

Invertebrates and Insects

The presence of stoneflies in the creek indicates good water quality. Caddis flies of different species were extremely abundant as were crayfish. Mayflies were common in the pool areas.

Ross W. Langhurst

RWL:jmg

NOTED: _____ _____
Date

B.-8

1972 STREAM SURVEY AND FISHING DATA

APPENDIX I

Stream Fishery
Catch and Effort by Stream

Stream	Survey Period	Total Trips	Hrs/ Trip	Trips/ Fish	Hrs/ Fish	Total Fish	Total Hrs
Reibolts Creek	Ap Jn-Oc	9,860	0.70	94.8	66.4	104	6,902
Whitefish Creek	Ap-Au	2,127	1.31	4.8	6.3	445	2,786
Braunsdorf Creek	My	334	1.30	4.8	6.3	69	434
Stony Creek	Ap My	1,646	5.70	1.0	5.7	1,632	9,380
Ahnapee River	Ap Au-Oc	4,016	1.83	10.1	18.5	397	7,350
Menomonee River	Se	1,845	2.96	6.8	20.0	273	5,460
Kewaunee River	Oc	364	2.58	1.1	2.9	326	938
East Twin River	Au Oc	1,973	1.32	1.9	2.5	1,062	2,604
Little Manitowoc River	Au-Oc	7,871	2.25	2.5	5.6	3,188	17,710
Sheboygan River	Au-Oc	3,691	1.21	11.3	13.7	326	4,466
Pt. Washington	Au-Oc	4,995	2.73	2.6	7.1	1,923	13,636
Oak Creek	Ap My Jn Oc	9,189	2.91	5.0	14.5	1,845	26,740
Totals		47,911	2.1	4.1	8.5	11,590	98,406

APPENDIX II

Stream Fishery - Catch by Species

Stream	Brook	Brown	Rainbow	Coho	Chinook	Lake*
Reibolts Creek	52	52	-	-	-	-
Whitefish Creek	-	132	313	-	-	-
Braunsdorf Creek	-	20	49	-	-	-
Stony Creek	-	-	1,632	-	-	-
Ahnapee River	-	159	159	79	-	-
Menomonee River	-	-	-	-	273	-
Kewaunee River	-	145	-	181	-	-
East Twin River	-	30	152	698	61	121
Little Manitowoc River	23	342	182	2,414	227	-
Sheboygan River	-	130	66	130	-	-
Pt. Washington	286	491	1,105	41	-	-
Oak Creek	27	326	673	814	-	-
Totals	388	1,827	4,326	4,357	561	121

* Catch from boats landing in the river

B.-8

APPENDIX I
Stream Fishery
Catch and Effort by Stream

Stream	Survey Period	Total Trips	Hrs./ Trip	Trips/ Fish	Hrs./ Fish	Total Fish	Total Hrs.
olt Cr	Ap-No	7,010	1.4	11.1	15.5	633	9,814
s Cr	Mr-Oc	248	2.6	5.5	14.3	45	645
ards Cr	Ap-No	1,161	1.2	0.6	0.7	1,990	1,393
efish Bay Cr	Mr-Au	1,508	2.2	1.5	3.2	1,037	3,318
nsdorf	Ap	364	1.5	9.3	14.0	39	546
y Cr	Mr-Jl, Oc, No	2,140	2.8	10.2	28.5	210	5,992
pee R	Ap, Se-No	10,621	1.5	11.2	16.8	948	15,932
e Mile Cr	Ap-Jn	1,092	0.5	28.0	14.0	39	546
unee R	Mr-Oc	24,372	1.2	10.2	12.3	2,378	29,246
on R.	Ap, Au-Oc	1,708	1.0	12.5	12.5	137	1,708
le River	Ap,My,Se-No	8,717	2.3	2.4	5.5	3.645	20,048
geon Bay Area	Ap-Jn,Se-No	29,330	1.6	8.8	14.0	3.352	46,928
win R	Ap-Jn,Se-No	3,328	2.2	4.6	10.1	725	7,322
Manitowoc	Ap,My,Au-No	14,585	2.2	2.3	5.1	6,292	32,088
oygan R	Ap,My,Au-No	9,882	1.7	6.7	11.4	1,474	16,800
Cr	My, Oc	4,136	2.2	3.4	7.5	1,213	9,100
Totals		120,202	1.7	5.0	8.3	24,157	201,426

APPENDIX II
Stream Fishery - Catch by Species

Stream	Brook	Brown	Rainbow	Coho	Chinook	Lake
olt Creek			633			
s Creek	3		42			
ards Creek	321	193	1,476			
efish Bay Cr	399	80	558			
nsdorf Creek	15	3	21			
y Creek			210			
pee River			478	470		
e Mile Creek			39			
unee River		951	1,427			
on River		68	69			
le River	27	27	762	2,829		
geon Bay Area	1,490	372	745		745	
Twin River	187	23	23	281	211	
le Manitowoc R		219	549	2,780	2,744	
oygan R		168	168	970	126	42*
Creek		51	152	1,010		
Totals	2,442	2,155	7.352	8,340	3,826	42*
landed by boat } % Composition	10.1	8.9	30.5	34.5	15.8	0.2

Appendix II
Stream Fishery
Catch and Effort by Stream *

STREAM SURVEY AND FISHING DAT
1970

Site	Survey Period From	To	Total Trips	Hrs/ Trip	Trips/ Fish	Total Fish	Hrs/ Fish	Total Hours
aunee River	Jan. 1 & April 1	- Feb. 28 - May 1	1,889	1.9	31.0	61	58.9	3,589.1
apee River	Jan. 1 & April 1	- Feb. 28 - May 1	1,992	3.2	4.6	433	14.7	6,374.4
Creek	Jan. 15 & April 1	- Feb. 28 - Apr. 30	1,386	1.6	34.5	40	55.4	2,217.6
bards Creek	April 1	- May 1	224	3.0	2.5	90	7.5	672.0
tefish Bay Creek	April 1	- May 1	730	1.4	(5.6)	(130)	(7.9)	1,022.0
ns Creek	April 1	- May 1	290	1.2	(5.6)	(52)	(6.7)	348.0
ansdorf Creek	April 1	- May 1	946	0.7	23.0	41	16.2	662.2
bolts Creek	April 1	- May 31	1,928	2.7	7.8	247	21.1	5,205.6
y Creek	April 1	- May 1	1,421	2.3	3.3	431	7.6	3,268.3
e Mile Creek	April 1 & June 1	- May 1 - July 1	1,114	1.0	13.6	82	13.6	1,114.(
Twin River	March 1	- June 1	844	1.3	5.5	153	7.2	1,097.2
sh Creek	April 1	- May 1	22	0.4	(5.6)	(4)	(2.2)	9.0
Twin River	March 15 & Aug. 16	- March 15 - Oct. 31	767	0.9	5.0	153	4.5	690.3
le Manit. R.	April 1 & Sept. 1	- June 1 - Oct. 31	7,508	3.1	2.9	2,589	9.0	23,274.8
towoc River	March 1	- May 1	689	1.3	4.3	160	5.6	895.7
t Cr. Fisher Cr.	April 1	- June 1	174	1.5	(5.6)	(31)	(8.4)	261.0
on River	Sept. 1	- Oct. 1	90	1.4	(5.6)	(16)	(7.9)	126.0
oygan River	April 1 & Oct. 1	- June 1 - Oct. 31	1,047	2.3	4.9	214	11.3	2,408.1
minee River	May 1	- Nov. 30	3,133	1.6	(5.6)	(559)	(9.0)	5,012.8
ls/Averages			26,194 Trips	2.2 Hrs/ Trip	5.6 Trips/ Fish	4,694 Fish	12.4 Hrs/ Fish	58,248.3 Hours

a in parentheses are estimates based on average trips per fish and are not included in

Shore fishing

1972

APPENDIX VII

Shore Fishery
Catch and Effort by Site

Site	Survey Period	Total Trips	Hrs/ Trip	Trips/ Fish	Hrs/ Fish	Total Fish	Total Hrs
Reibolt Branch	Jn	1,091	2.54	1.5	3.8	729	2,772
Braunsdorf Branch	My-Au	678	2.54	4.0	10.2	169	1,722
Three Mile Creek	Ap-Au	485	5.74	1.8	10.2	273	2,786
Little River	Se-No	9,625	2.40	1.4	3.3	6,907	23,100
Moonlight Bay	Ap My Au Oc	1,609	1.07	15.0	16.1	107	1,722
Caves Point	My-Oc	2,134	2.29	4.6	10.4	469	4,886
Whitefish Bay	Jn	1,280	1.05	2.0	2.1	640	1,344
Westers Landing	My-Oc	4,040	3.76	2.7	10.2	1,488	15,190
Sturgeon Bay	Ap-Oc	10,716	7.58	2.9	21.7	3,736	81,228
Utecks	My-Au	2,100	1.78	5.7	10.2	366	3,738
Algoma	Oc	747	0.75	13.6	10.2	55	560
Kewaunee	My-Oc	9,040	1.51	5.1	7.8	1,761	13,650
Two Creeks	My-Oc	1,064	2.42	2.4	5.8	446	2,576
Manitowoc	Au-Oc	7,955	1.54	9.3	14.3	858	12,250
Cleveland	My Jl Se	1,588	1.41	7.6	10.8	208	2,240
South Shore	Ap My Se Oc	672	2.54	4.0	10.2	167	1,708
Racine	Ap My Oc	21,927	2.37	18.3	43.5	1,195	51,968
Kenosha	Oc	341	2.54	4.0	10.2	85	868
Totals		77,092	2.9	3.9	11.4	19,659	224,308

APPENDIX VIII

Shore Fishery - Catch by Species

Site	Brook	Brown	Rainbow	Coho	Chinook	Lake
Reibolt Branch	-	729	-	-	-	-
Braunsdorf Branch	5	95	46	23	-	-
Three Mile Creek	8	154	75	36	-	-
Little River	13	2,599	1,423	2,835	37	-
Moonlight Bay	-	-	107	-	-	-
Caves Point	176	20	273	-	-	-
Whitefish Bay	640	-	-	-	-	-
Westers Landing	58	788	642	-	-	-
Sturgeon Bay	187	187	31	31	3,269	31
Utecks	10	206	101	49	-	-
Algoma	2	31	15	7	-	-
Kewaunee		1,509	252	-	-	-
Two Creeks	22	106	276	-	-	42
Manitowoc	66	132	330	330	-	-
Cleveland	-	24	-	92	-	92
South Shore	-	146	21	-	-	-
Racine	-	1,195	-	-	-	-
Kenosha	-	50	35	-	-	-
Totals	1,187	7,971	3,627	3,403	3,306	165

APPENDIX VII
Shore Fishery
Catch and Effort by Site

Site	Survey Period	Total Trips	Hrs/ Trip	Trips/ Fish	Hrs/ Fish	Total Fish	Total Hrs
Braunsdorf	Ap-Se	1,107	2.2	3.7	8.2	297	2,436
Stony Cr	Jn,Se	382	2.2	3.7	8.2	10	840
Threemile	Jn-Au	598	2.2	3.7	8.2	160	1,316
Little River	Se-No	3,863	2.7	9.5	25.2	414	10,430
Baileys Hrbr	My,Jn, Au,Se	1,782	2.2	3.7	8.2	478	3,920
Schauer Pk	Se,Oc	1,285	2.2	3.7	8.2	345	2,828
Caves Point	Mr-Oc	2,647	1.6	2.6	4.1	1,033	4,235
Wester's	Mr,Jn,Se-No	5,073	5.1	2.7	13.9	1,861	25,872
Sturgeon Bay	My,Jn,Au-No	20,367	2.3	2.8	6.5	7,207	46,844
Utechs	Jn-Au	385	2.2	3.7	8.2	103	847
Algoma	My,Jn	194	2.2	6.1	13.5	32	427
Kewaunee	My,Jn	388	2.2	6.1	13.5	63	854
Two Creeks	My-Oc	498	1.4	9.6	13.5	52	697
Manitowoc	Ap,Au-Oc	2,135	1.6	8.0	13.1	261	3,416
Cleveland	My-Oc	1,982	1.3	1.9	2.4	1,073	2,576
Sheboygan	Se,No	1,527	1.1	7.0	7.7	218	1,680
Pt. Washington	My,Au-Oc	9,315	2.8	8.6	24.5	1,065	26,082
Racine	Oc	3,577	2.0	9.8	19.8	361	7,154
Totals		57,205	2.5	3.8	9.5	15,033	142,454

Fish Species

Rock bass

8.4"
7.0"
20 fish - 1.5" - 4.5"

Johnny darters

15

White sucker

10 fish - 2"

Perch

3.2"

Mottled sculpin

10

Rainbow trout

7.1"
20 fish 1.8" - 2.3"

Brook trout

8.5"
3.8"

Northern pike

7.0"

Invertebrates and Insects

Gerridae - common

Decapoda - Abundant

Asselus - rare

Plecoptera
- Taeniopterygidae
  - Taeniopteryx - common only in riffles

Ephemeroptera
- Heptageniidae
  - Stenonema - common only in pool areas

Trichoptera
- Hydropsychidae - common in riffles
- Helicopsychidae
  - Helicopsyche borealis - common in riffles
- Lepidostomatidae
  - Lepidostoma - abundant in pool areas

Gammarus - present

Appendix C

STATE CONSERVATION COMMISSION OF WISCONSIN

RESOLUTION

It is resolved by the State Conservation Commission of Wisconsin, in session at Sturgeon Bay, Wisconsin, on July 21, 1967, that:

WHEREAS, there is an increasing demand for public recreation areas in Wisconsin, and

WHEREAS, the Whitefish Bay area of Door County possesses unusual scenic values and is worthy of addition to the State Park System of Wisconsin, and

WHEREAS, the Door County Board has approved the establishment of the following area as a state park, and

WHEREAS, the electorate of Door County by referendum have also approved the establishment of the park,

NOW, THEREFORE, the Wisconsin Conservation Commission, in accordance with Section 27.01, Wisconsin Statutes, hereby establishes the following described area in Door County, Wisconsin, as Whitefish Bay State Park:

BEGINNING at the intersection of the north line of Section 2, T28 N, R27 E with the shore of Lake Michigan; thence west along the north line of Section 2 to the town road in Lot 2, Section 2; thence southerly along said town road S 18° East 936' to a point in said road; thence west 375.7' to the shore of Clark's Lake; thence southwesterly along the shore of Clark's Lake to the intersection of the west line of Section 2; thence south along the west line of Section 2 to the intersection of the town road running approximately two hundred feet from and parallel to Clark's Lake; thence southwesterly along said town road to the west line of Lot 3 of Section 3; thence south to the intersection of the south line of Section 3; thence west

along the south lines of Sections 3 and 4 to the northwest corner of the NE $\frac{1}{4}$, NE $\frac{1}{4}$ of Section 9; thence south to the southwest corner of the NE $\frac{1}{4}$, SE $\frac{1}{4}$ of Section 9; thence east along the south line of the NE $\frac{1}{4}$ SE $\frac{1}{4}$, 1,000' M/L; thence north

3° west 740' M/L; thence north 87° east to the intersection of the town road in Section 10 running approximately 300' from and parallel to the shore of Lake Michigan; thence northeasterly along said town road to a line 100' east of and parallel to the west line of Lot 1 Section 10; thence south on said line to the intersection with the shore of Lake Michigan; thence northeasterly along the shore of Lake Michigan to the place of beginning, all in Township 28 North, Range 27 East, Town of Sevastopol, Door County, Wisconsin.

It is the policy of this Commission that this unique area be preserved in as natural a condition as possible. Therefore, the Conservation Director is instructed to develop the area in accordance with the following policy:

1) The preservation of the sand dunes will be given primary emphasis and the sand dunes will be established as a State Scientific Area.

2) No camping will be developed within the proposed park within the next ten years. If at some future date it appears in the best interests of the public to establish public camping in

the park, a public hearing on the subject will be held in the Town of Sevastopol prior to Commission action.

3) No boat landing will be established on Clark's Lake; and no public beach for a period of at least ten years, but if at some future date the establishment of a public beach appears to be in the public interest, a hearing on the subject will be held in the Town of Sevastopol prior to Commission action.

4) A buffer zone at least 300 feet wide in which no development will take place will be established along the town road on the south side of Clark's Lake.

5) No commercial concessions will be permitted within the park during the next ten years. If at some future date the establishment of a concession appears to be in the public interest, a hearing on the subject will be held in the Town of Sevastopol prior to Commission action.

6) A through road for north-south traffic will be provided in the park.

7) A naturalist program will be established to interpret the significance of the area to park visitors.

8) The Conservation Department will maintain all roads within the boundaries of the park.

Dated July 21, 1967.

STATE CONSERVATION COMMISSION OF WISCONSIN

James R. Lucas
Chairman

(COMMISSION SEAL)

Secretary

RESOLUTION NO. 12-67

RESOLVED BY THE COUNTY BOARD OF SUPERVISORS OF DOOR COUNTY, WIS., THAT:

WHEREAS, there is an increasing demand for public recreation areas in Wisconsin, and

WHEREAS, the Whitefish Bay Area of Door County possesses unusual scenic values and would be a worthy addition to the State Park System of Wisconsin, and

WHEREAS, the value of this area for recreational use has been recognized by both State and Federal agencies for many years, and

WHEREAS, the Wisconsin Conservation Department desires to establish a state park on the following described area:

BEGINNING at the intersection of the north line of Section 2, T28 N, R27 E with the shore of Lake Michigan; thence west along the north line of Section 2 to the town road in Lot 2, Section 2; thence southerly along said town road S 18° East 936' to a point in said road; thence west 375.7' to the shore of Clark's Lake; thence southwesterly along the shore of Clark's Lake to the intersection of the west line of Section 2; thence south along the west line of Section 2 to the intersection of the town road running approximately two hundred feet from and parallel to Clark's Lake; thence southwesterly along said town road to the west line of Lot 3 of Section 3; thence south to the

1. To develop the area in accordance with the following policy:

   a. The preservation of the sand dunes will be given primary emphasis and the sand dunes will be established as a State Scientific Area.

   b. No camping will be developed within the proposed park within the next ten years. If at some future date it appears in the best interests of the public to establish public camping in the park, a public hearing on the subject will be held in the Town of Sevastopol prior to Commission action.

   c. No boat landing will be established on Clark's Lake; and no public beach for a period of at least ten years, but if at some future date the establishment of a public beach appears to be in the public interest, a hearing on the subject will be held in

the Town of Sevastopol prior to Commission action.

   d. A buffer zone at least 300 feet wide in which no development will take place will be established along the town road on the south side of Clark's Lake.

   e. No commercial concessions will be permitted within the park during the next ten years. If at some

intersection of the south line of Section 3; thence west along the south lines of Sections 3 and 4 to the northwest corner of the NE $\frac{1}{4}$, NE $\frac{1}{4}$ of Section 9; thence south to the southwest corner of the NE $\frac{1}{4}$, SE $\frac{1}{4}$ of Section 9; thence east along the south line of the NE $\frac{1}{4}$ SE $\frac{1}{4}$, 1,000' M/L; thence north 3° west 740 ' M/L; thence north 87° east to the intersection of the town road in Section 10 running approximately 300' from and parallel to the shore of Lake Michigan; thence northeasterly along said town road to a line 100' east of and parallel to the west line of Lot 1 Section 10; thence south on said line to the intersection with the shore of Lake Michigan; thence northeasterly along the shore of Lake Michigan to the place of beginning, all in Township 28 North, Range 27 East, Town of Sevastopol, Door County, Wisconsin.

WHEREAS, Wisconsin Statutes 15.60 (5b), Chapter 427, Laws of Wisconsin 1961, state: "In a county containing 4,500 acres or more of state park lands on January 1, 1961, no lands or interest therein for new state parks shall be acquired by the state unless the county board of such county first approves the proposed state park."

WHEREAS, there is a concern for the preservation of this unique area in as natural condition as possible, this resolution shall be binding only with the agreement by the Wisconsin Conservation Commission:

future date the establishment of a concession appears to be in the public interest, a hearing on the subject will be held in the Town of Sevastopol prior to Commission action.

f. A through road for north-south traffic will be provided in the park.

g. A naturalist program will be established to interpret the significance of the area to park visitors.

2. The Conservation Department will maintain all roads within the boundaries of the park.

NOW, THEREFORE BE IT RESOLVED by the County Board of Supervisors of Door County, Wisconsin, assembled in session this 20th day of June-67 that we do approve the establishment of the proposed state park on the above described lands.

S/Bernard Hagedorn
Bernard Hagedorn, Chairman

S/ Grace McCormick
Grace McCormick

S/Stanley Hein
Stanley Hein

TEST:

I, Norman Stegmann, duly elected and qualified Clerk of the County of Door do hereby certify that the above Resolution was properly introduced and passed at a regular meeting of the Door County Board of Supervisors this 20th day of June, 1967.

S/Norman Stegmann
Norman Stegmann, County Clerk
Door County, Wisconsin

WILD RESOURCES ADVISORY COUNCIL STATEMENT

UWEC UNIVERSITY OF WISCONSIN-EAU CLAIRE/EAU CLAIRE, WISCONSIN 54701

DEPARTMENT OF GEOGRAPHY

December 13, 1977

Whitefish Dunes State Park

The WRAC recommendations are based on written responses from its members, telephone calls and consultations with reliable interested parties.

The WRAC is impressed with the master plan and wishes to congratulate the Master Plan Staff and Bureau of Parks and Recreation for capturing the spirit and concerns expressed in the long history of devotion to the preservation of the best dunes on the west shores of Lake Michigan. There is no question that the path to success has taken a long time and that it has involved persistent effort and cooperation of the total spectrum of our governments and yet, in these proceedings, it has never deviated from the main theme, that of perservation. The Council's recommendations and main concerns are with the wild resources management proposals in the master plan and since they agree with your philosophy our reactions are generally complementary to them.

1. WRAC has appraised the three management options proposed for Whitefish Bay Dune: A. Total and exclusive perservation; B. Limited development with primary emphasis on preservation; C. An intensively developed park with numerous facilities for visitors use. The pooled opinions of the council recommends option B. We beleive that master plan proposal of park use with maintenance of limited accomodations at Caves Point and low profile regulated use of the remainder of the park is a good one. Most of the Council members and other interested volunteers showed great personal concern about the welfare of the fragil segments of the park and the rare and endangered plant species in those areas, as did your staff involved in drafting ~~your~~ the master plan.

2. WRAC has followed the lead of the Scientific Areas Preservation Council and recommends the following action:

a. The WRAC recommend that all of the coastal dune area be included in the Scientific Area Sector. It is the Council's opinion that with this designation of these fragil dunes and the rare plants that live in this habitat, the area will gain additional legal prestige and attain increased level of protection.

b. The WRAC further recommend that the (about) 2500 ft. of Clark Lake shoreline, next to the upper section of the proposed Scientific Area be included as part of the Scientific Area rather than being listed as a natural area. The area is not planned for development in the master plan and it does possess a rich assortment of wetland forest and associate plants. By being identified as a part of the Scientific Area, this segment of the Park will be able to maintain its natural posture at a higher level than without the suggested inclusion.

The University of Wisconsin-Eau Claire provides equal educational and employment opportunity regardless of sex, age, marital or parental status, race, color, religion, national origin, or handicap in compliance with Title IX and Title VI. Refer questions to Affirmative Action Office, 225 Schofield Hall, 715/836-5717

The State of Wisconsin

SCIENTIFIC AREAS PRESERVATION COUNCIL

P.O. Box 7921
Madison, Wisconsin 53707

IN REPLY REFER TO: 2800

February 3, 1978

Mr. Donald Mackie, Director
Bureau of Parks & Recreation
Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707

Dear Mr. Mackie:

This letter concerning Whitefish Bay Dunes is sent to you on behalf of the Scientific Areas Preservation Council (SAPC). Several weeks ago Messrs. Germain and Triechel discussed the concerns of the Bureau of Parks and Recreation on the recommendations submitted previously by the SAPC. These concerns were reported to the SAPC at their January 19, 1978 meeting. Their reaction is set forth below.

First, the SAPC understands the Bureau's reluctance to classify all of the Clark Lake frontage within the park boundary as scientific area. They also agree that the frontage on Clark Lake be divided in about two equal parts, with the most northeasterly part being classified as scientific area, to allow somewhat more flexibility for limited development should that be desired at some future date.

Second, while the SAPC is concerned about the potential conflicts in recreational use of the beach and spillover on the dunes, they understand the difficulty of restricting recreational use of the entire beach. They appreciate Mr. Treichel's suggestion to use signs for controlling this problem, but remain concerned that leaving the entire beach open to recreational use will lead to excessive trampling of the dune's fragile vegetation. This problem will be especially acute in the next few years before the permanent day use area is constructed at the extreme northeastern corner of the beach.

One Council member, Dr. Orie Loucks, warned that even though the beach was devoid of vegetation, many small animals use the strand zone and need the exacting requirements of the sand-water interface. Therefore, the Council asks that until the permanent day use area is opened, at least a portion of the beach--that portion southwest of the temporary use area and most remote from the planned day use area--be included in the scientific area zone and that recreational use be restricted on this portion of the beach. The area southwest of the existing town access also contains the more active dunes.

Since the park is being established to preserve the unique dune's ecosystem, recreational use of the adjacent beach zone should be a primary concern of the Department. Zoning the beach and attempting to keep a portion restricted to hiking and nature study is our recommended alternative to our initial recommendation of including all of the beach area in the scientific zone.

A third item expressed by the Council concerns the area labeled old field succession on our map (adjoining the plantation). We did not include this within our recommended boundary for the scientific zone, but several Council members expressed interest in studying plant succession on this disturbed site. It could be included in the scientific zone as buffer or at least left in a natural state to compliment the adjoining natural dunes area.

Our recommendations for boundary changes are shown on the attached map.

Sincerely,

C. Kabat

C. Kabat
Secretary

CK:sh
Attach.