

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
Division of Forestry, Wildlife and Recreation
Bureau of Fish Management

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Potential Small Boat Harbor Sites
Lake Michigan Shoreline
in
Kewaunee, Manitowoc and Northern Sheboygan Counties

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C O N T E N T S

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- II. LOCATION MAP
- III. NARRATIVES AND MAPS OF POTENTIAL HARBOR SITES
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I. INTRODUCTION.

In the fall of 1970 a study was initiated to determine the location and relative merits of potential small boat harbor sites along the Lake Michigan shoreline from Sheboygan north to the Door--Kewaunee County line only. A review of USGS topographic maps of the area showed that 20 sites may have harbor potential. A cursory inspection of each site led to the rejection of 9 sites for various reasons as shown in Section IV. As the need arises other portions of the shoreline (Sheboygan south and Door County north) can and will be subjected to an inspection similar to this one.

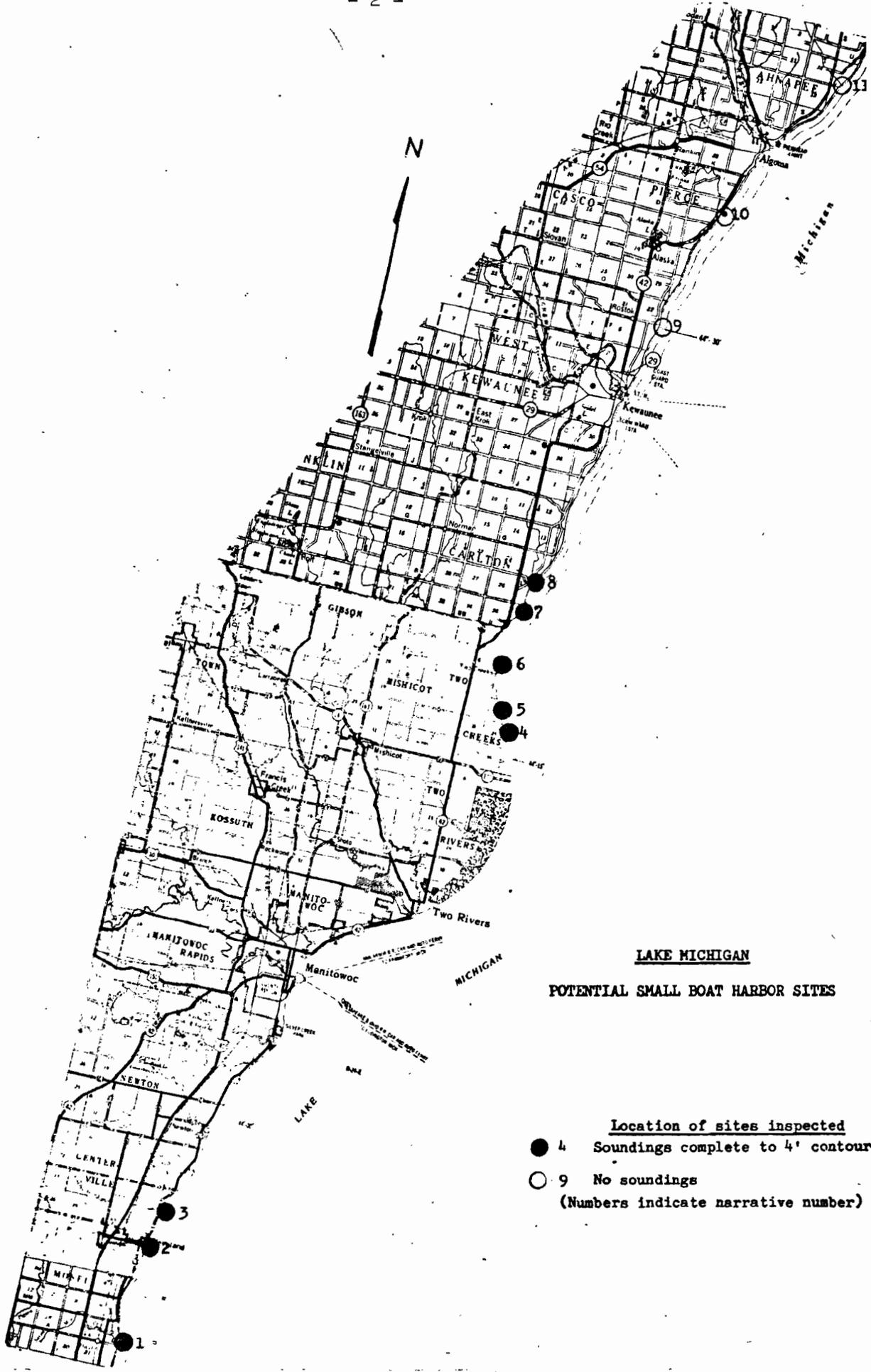
Large scale maps (1" = 0.2 miles) were prepared for each of the 11 remaining sites showing access roads, buildings, land contours, and USGS offshore depth contours (to the 6 foot contour). Soundings were made offshore to determine exact location of the 4 foot contour* and in most cases the 6 foot contour. Soundings were not recorded at Site 9 and Site 10 because of the onset of winter. If an estuary was present its length and width were measured and soundings made. Factors (such as rocks, poor soil types, presence of sand bars, buildings, etc.) that would interfere with harbor development were noted. A narrative summary for each site was prepared using the following format:

1. Site number (refers to location map found in Section II).
2. Site name.
3. Distance from existing ports.
4. Ownership of site.
5. Nature of offshore depth contours.
6. Estuary characteristics.
7. General description.

A narrative for each site and a map of each site are presented in Section III.

Those sites offering the best harbor development potential are Haven Military Reservation (Site 1), Fisher Creek (Site 3), Point Beach Reactor (Site 4), and Silver Creek (Site 11). Those offering moderate potential are Hika-Cleveland (Site 2), Two Creeks Park (Site 6), Sandy Bay (Site 8), and Mashek Creek (Site 9). Those sites offering least potential are Point Beach Reactor (Site 5), Kewaunee Reactor (Site 7), and Three Mile Creek (Site 10).

*Note: The 4 foot contour was chosen because U. S. Army Corps of Engineers data indicates that inboard and outboard motor boats up to 40 feet long can navigate in 4 feet deep water.



LAKE MICHIGAN

POTENTIAL SMALL BOAT HARBOR SITES

- Location of sites inspected
- 4 Soundings complete to 4' contour
 - 9 No soundings
- (Numbers indicate narrative number)

III. NARRATIVES AND MAPS OF POTENTIAL HARBOR SITES.

Site Number: 1

Name: Haven Military Reservation

Location: Sheboygan County, SW¹/₄ SE¹/₄ Section 15, T-16 N, R-23-E.

Potential harbor site is located at the mouth of the Meeme River and Seven Mile Creek.

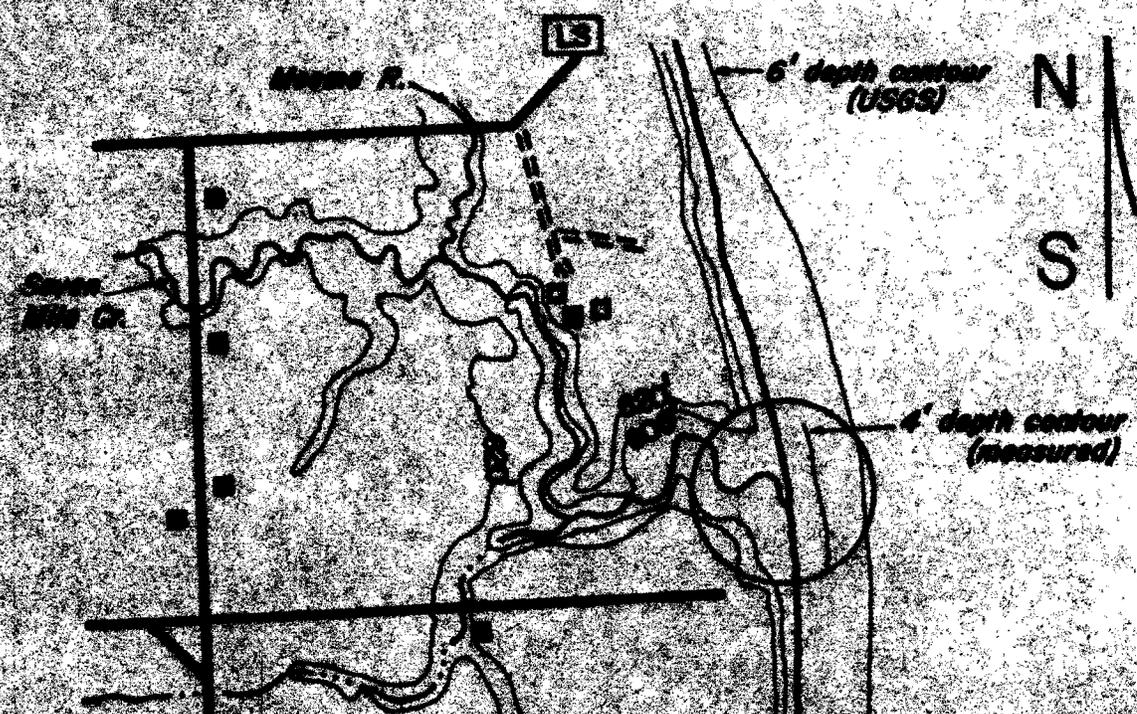
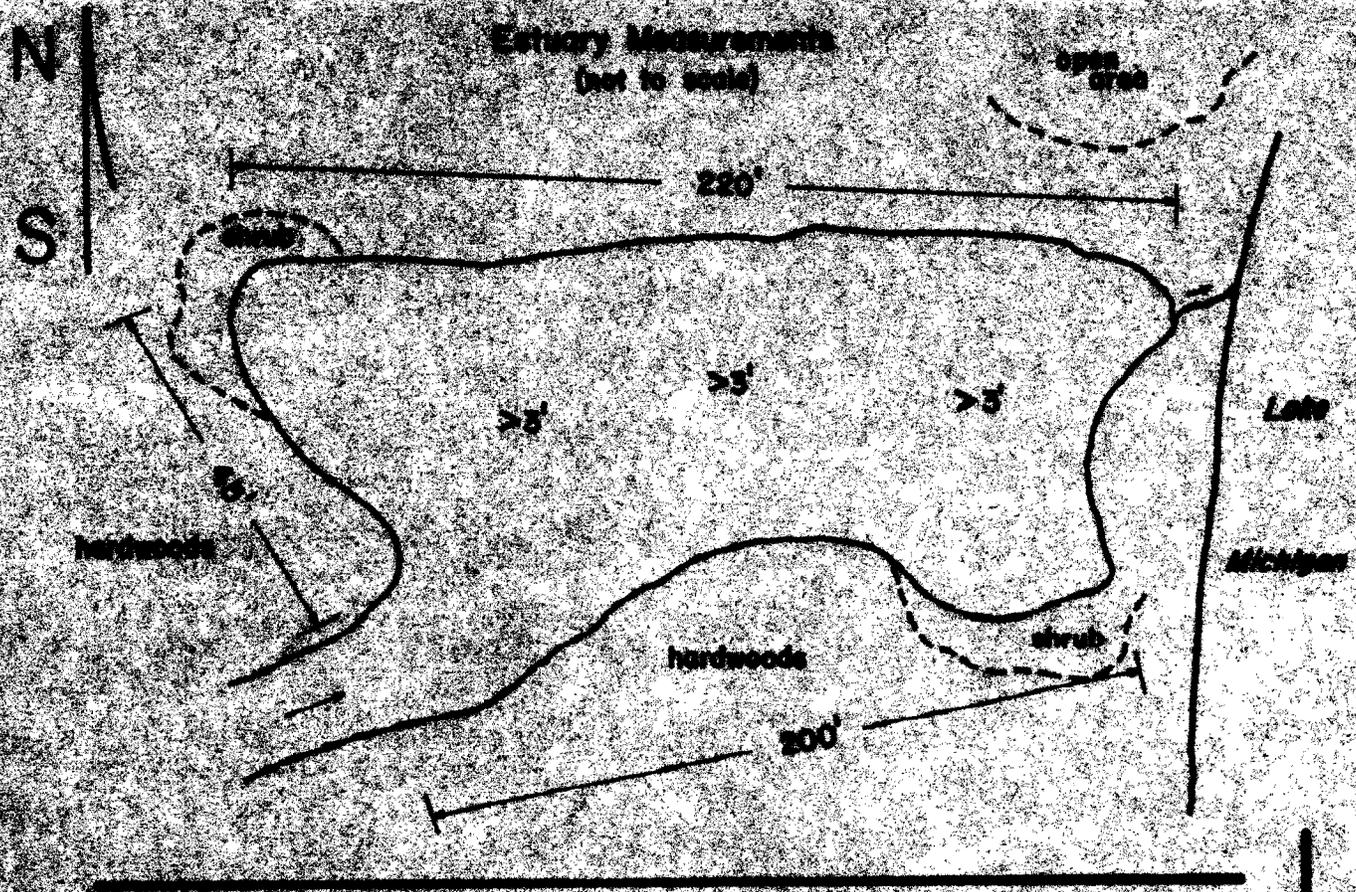
Distance from existing ports: 17.5 miles south of Manitowoc and 8 miles north of Sheboygan.

Ownership of site: Wisconsin Electric Power Company (1970 Sheboygan County Plat Book).

Nature of offshore depth contours: Based on the average lake level of 580 feet above sea level the 6 foot contour lies approximately 400 feet from shore. By actual measurement the 4 foot contour is about 150 feet from shore (fall, 1970) and the 6 foot contour is estimated to be approximately 200--250 feet from shore.

Estuary characteristics: The estuary present at this location measures some 200 feet long by about 50 feet wide and encompasses about 1/4 acre of open water. It is at least 4 feet deep with depths dropping off rapidly to this level.

General discussion: This is one of the better potential harbor sites inspected. A virtually unprotected shoreline and presence of rocks are the only noticeable drawbacks noted. Access to the area is good with a gravel road leading to the harbor site from the south and a gravel-blacktop road from the north. The natural estuary present could be enlarged and deepened by dragline without much apparent difficulty. A hardwood lowland immediately south of the estuary would readily lend itself to dredging. Improvement of access roads and construction of a breakwater (approximately 400 feet long on both sides of harbor mouth) are other needed improvements.



Site Number: 2

Name: Village of Hika--Cleveland

Location: Manitowoc County, SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 27, T-17 N, R-23 E..

Potential harbor site is located at the mouth of Centerville Creek.

Distance from existing ports: 13 miles south of Manitowoc and 12.5 miles north of Sheboygan.

Ownership of site: Public (either village or county).

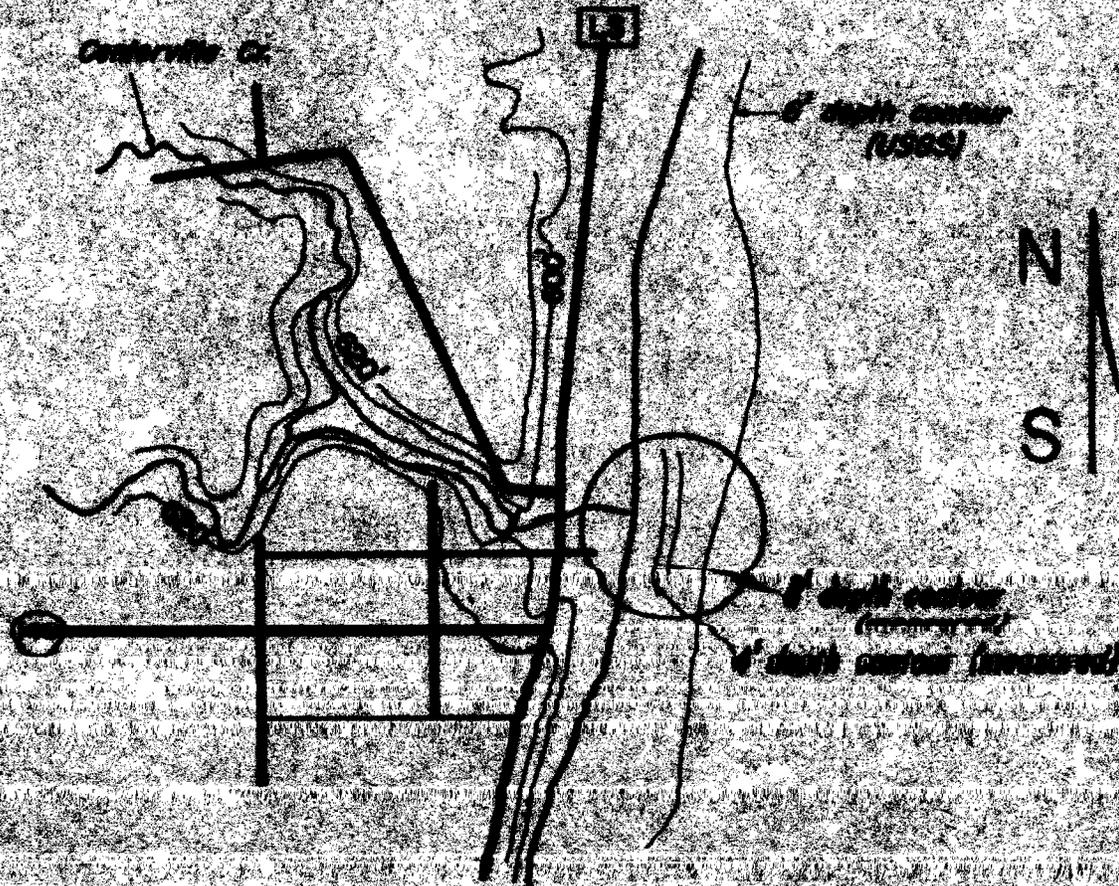
Nature of offshore depth contours: According to USGS maps the 6 foot contour (based on average lake level of 580 feet) lies 400--500 feet offshore. In 1964 Corps of Engineers found the 2 foot contour to be 150 feet from shore. In the fall of 1970 the 4 foot contour was 140 feet from shore and the 6 foot contour was about 200 feet from shore.

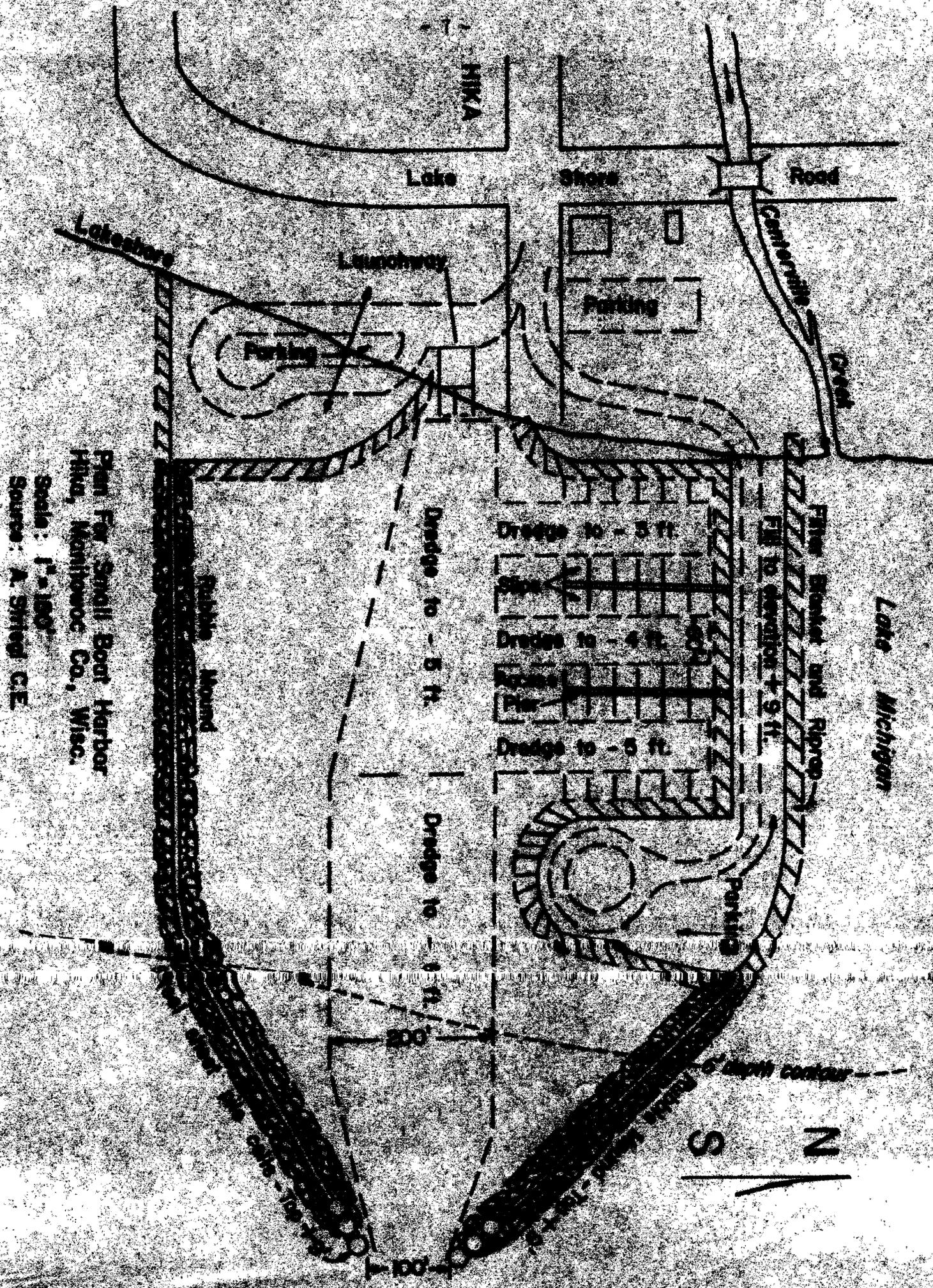
Estuary characteristics: A very small estuary is present but it offers no potential as a harbor.

General discussion: Hika is a fairly poor site for a small boat harbor. The area available for a harbor is restricted by a sewage treatment plant, buildings to the south and west, and a highway several hundred feet west of the harbor site. During low water years a wide sandy beach is present and offshore depths are quite shallow. The presence of large rocks and boulders makes boating hazardous in this area. A small boat launching ramp, parking area, and public park are already present at this site. Access roads to the area are adequate. In 1964 the Army Corps of Engineers drew plans for a harbor at this location (copy attached). At that time estimated cost for such a harbor was \$920,000 excluding costs for land and service facilities. Construction of such a harbor would require at least 2,400 feet of breakwater.

No Significant Estuary
(see narrative)

2





Plan For Small Boat Harbor
 Hink, Manitowoc Co., Wisc.

Scale: 1" = 100'
 Source: A. Sinter C.E.

Site Number: 3

Name: Fisher Creek

Location: Manitowoc County, SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 15, T-17 N, R-23-E.

Distance from existing ports: 11.5 miles south of Manitowoc and
14 miles north of Sheboygan.

Ownership of site: Joseph Beckman (Manitowoc County Plat Book,
1958).

Note: A sign indicates property is presently for
sale.

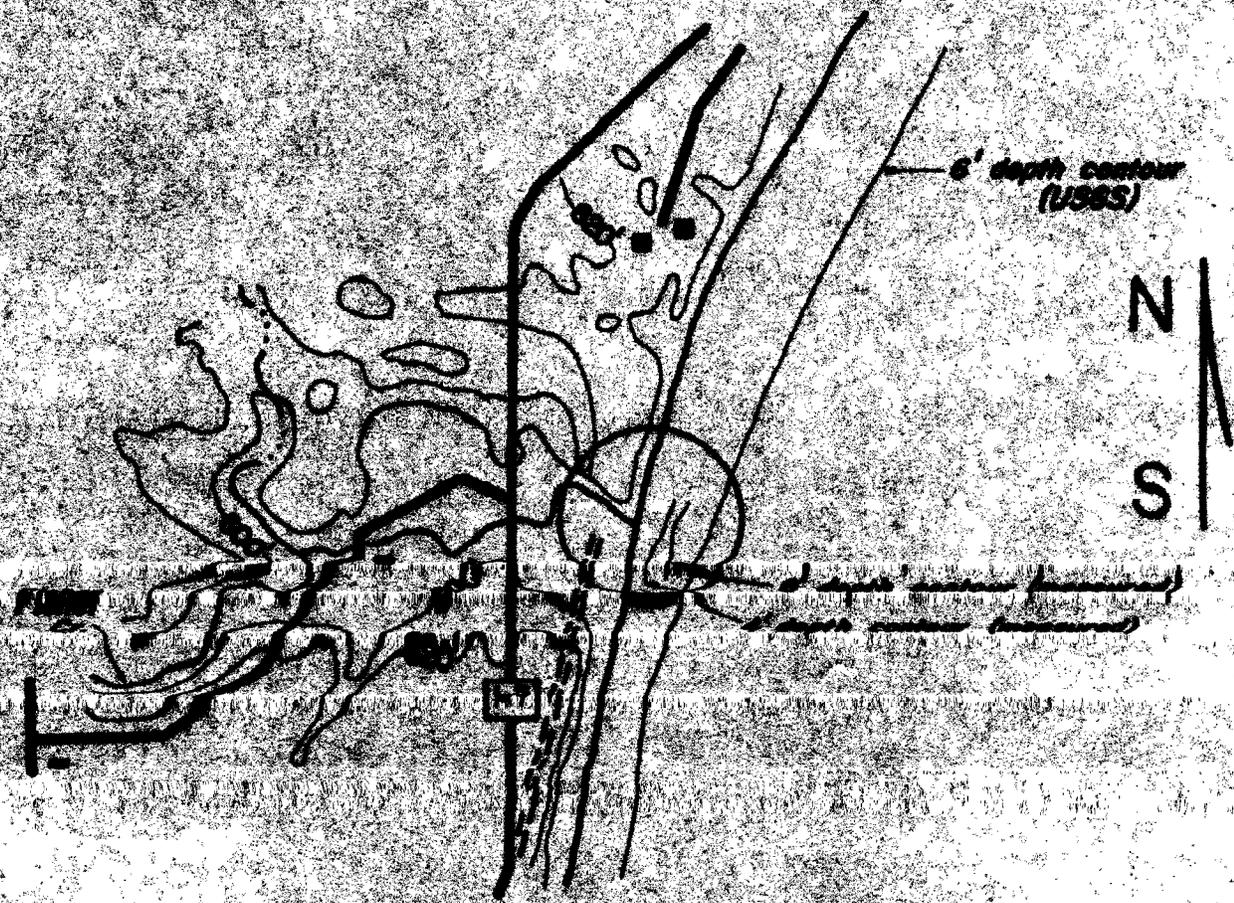
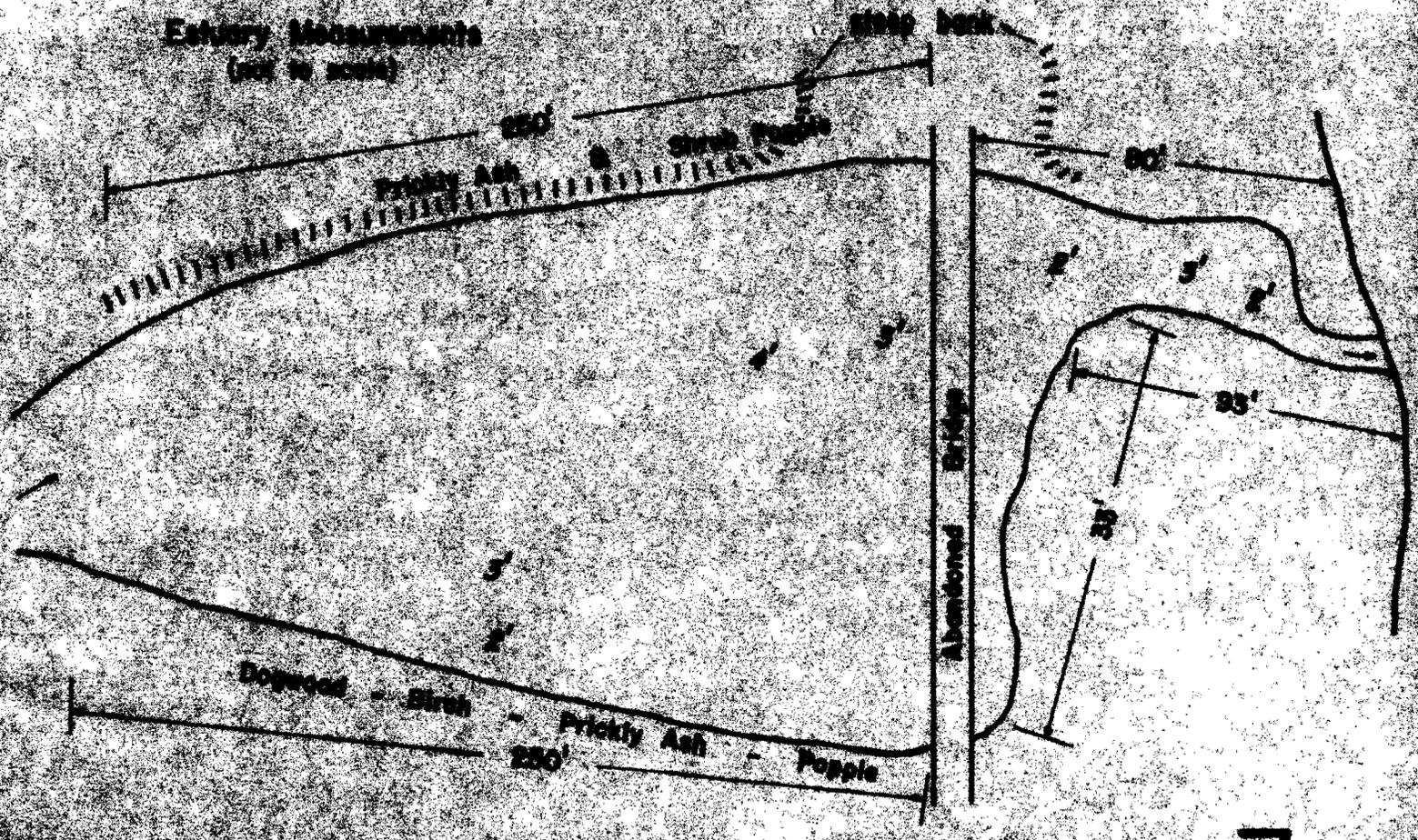
Nature of offshore depth contours: USGS maps indicate that the
6 foot contour ranges from 300 to 450 feet from
shore (based on lake level of 580 feet). Measure-
ments made in the fall of 1970 indicate that the
4 foot contour is about 100 feet from shore and
the 6 foot contour about 200 feet from shore.

Estuary characteristics: An estuary encompassing about 1/4 acre
of open water and measuring 250 feet by about
50 feet is present at this site. Water depths
are in excess of three feet over much of the area.
North of the estuary lies a protective high bank.
An open to brushy lowland with some marsh lies
to the south. An abandoned bridge is located
between the estuary and Lake Michigan.

General discussion: Of all the sites inspected this offers perhaps
the best potential for development into a protective
harbor. The natural harbor or estuary present
is well protected against winds. Dredging of the
area to make boat channels and enlarge the harbor
could be accomplished with little difficulty.
Good access to the area is available via CTH "LS".
Several trails lead directly to the harbor site.
Local fishermen make heavy use of this area
during rainbow trout runs. (Several rainbows
were seen caught during inspection of this site.)

If a harbor is to be developed in Manitowoc
or Kewaunee counties this site should receive top
consideration.

Estuary Measurements
(not to scale)



Site Number: 4

Name: Point Beach Reactor (south).

Location: Manitowoc County NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 25, T-25 N, R-21 E.

About $\frac{3}{4}$ mile south of the Point Beach Reactor.

Distance from existing ports: 14 miles south of Kewaunee and 10 miles north of Two Rivers.

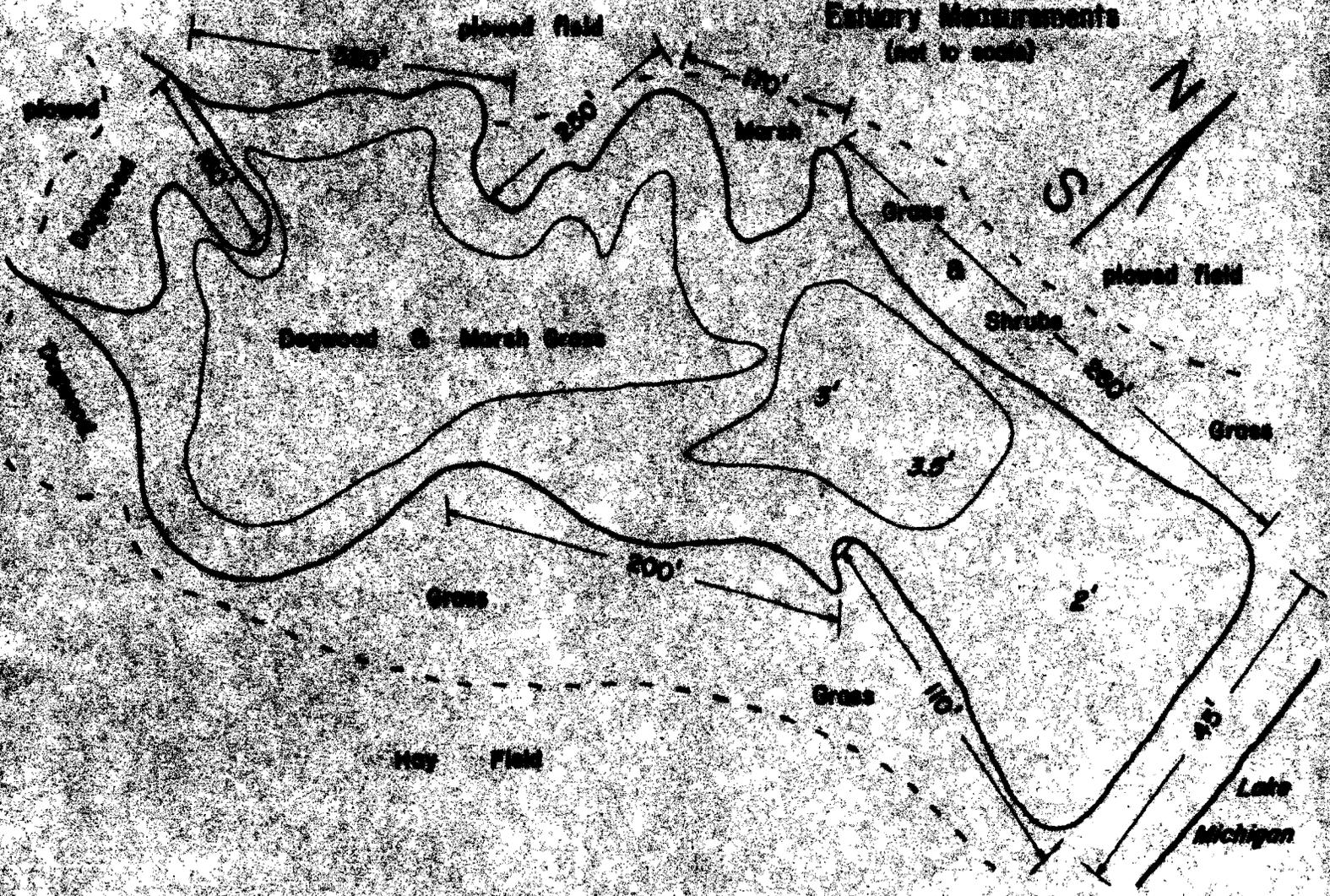
Present ownership: Wisconsin--Michigan Power Company (Appleton).

Nature of offshore depth contours: USGS maps show the 6 foot contour to be some 600 feet offshore. By actual measurement the 4 foot contour averages 40 feet from shore and by estimate the 6 foot contour 80 feet offshore.

Estuary characteristics: An irregular shaped estuary covering about $\frac{1}{3}$ acre of water is present. While generally white shallow the estuary does reach depths of $\frac{3}{2}$ feet. The entire estuary is surrounded by fairly flat fields. Several marshy islands are present within the estuary.

General discussion: Next to the Fisher Creek site this is the best potential harbor site inventoried. A harbor could easily be constructed by enlargement of the estuary and by the construction of a fairly short breakwater. No buildings or other developments would interfere with harbor construction. A dragline could easily operate in this area. Access is available from Highway 42 via a town road. This site is a popular duck hunting spot.

Estuary Measurements (not to scale)



4



Site Number: 5

Name: Point Beach Reactor

Location: Manitowoc County, NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 24, T-21 N, R-24 E.

Immediately south of the Point Beach Reactor.

Distance from existing ports: 13.5 miles south of Kewaunee and 10.5 miles north of Two Rivers.

Ownership of site: Wisconsin--Michigan Power Company (Appleton).

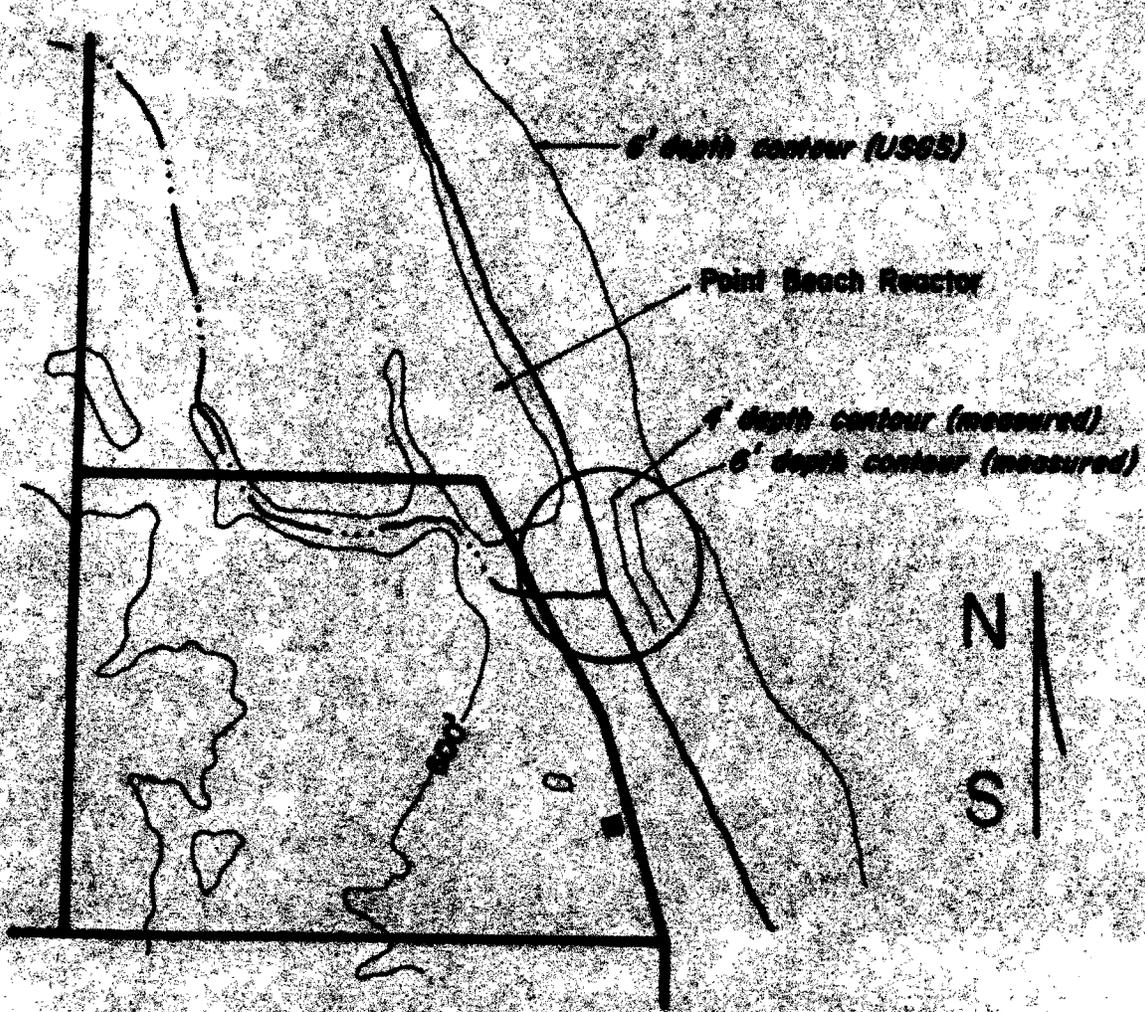
Nature of offshore depth contours: USGS maps indicate that an average lake level the 6 foot contour would be 575 feet from shore. By measurement we found the 5 foot contour to be 100 feet from shore and the 6 foot contour about 200 feet from shore.

Estuary characteristics: No significant estuary present.

General discussion: An intermittent stream enters at this location. While the streambed is quite brushy the adjacent lands are open fields. A harbor could be developed at this site only after a considerable amount of dredging and breakwater work has been completed. Because of these shortcomings and because it is located quite close to the reactor this site should not receive priority consideration for small boat harbor development. Road access is fair to good.

No Estuary Present

5



Site Number: 6

Name: Two Creeks Park

Location: Manitowoc County NE~~4~~ SE~~4~~ Section 11, T-21 N, R-24 E.
One mile East of Two Creeks.

Distance from existing ports: 11.5 miles south of Kewaunee and
12.5 miles north of Two Rivers.

Ownership of site: Manitowoc County.

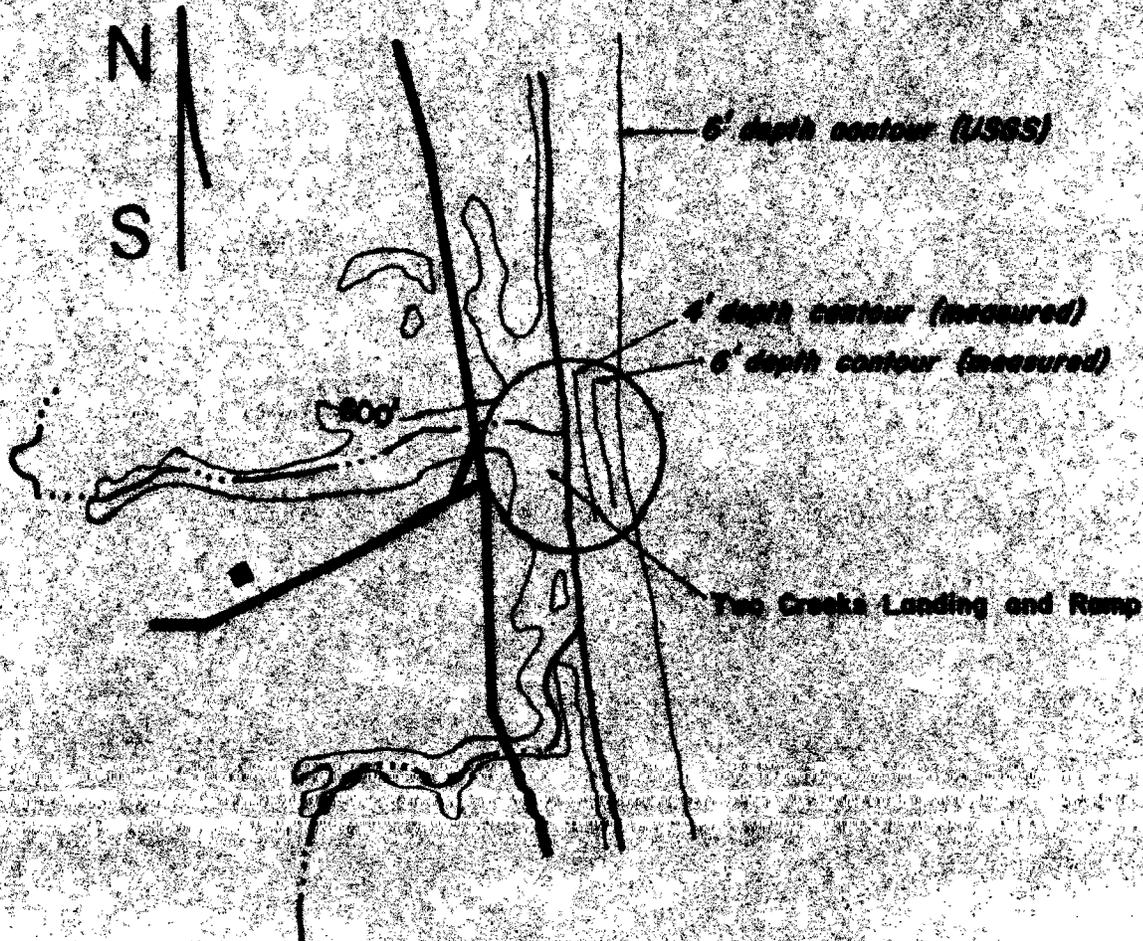
Nature of offshore depth contours: USGS maps indicate the 6 foot
contour is 300 feet from shore when the lake is
at the 580 foot level. By measurement the 6 foot
contour was 150 feet from shore and the 4 foot
contour only 75 feet from shore.

Estuary characteristics: No significant estuary present.

General discussion: A fairly good boat launching ramp (blacktop
and concrete) is present at this site. By con-
structing this ramp the county ruined a good harbor
site through the filling of a lowland area. A
subdivision immediately north of the site limits
land available for harbor development. A harbor
could be constructed at this site only after con-
siderable dragline or breakwater work was completed.
In 1964 the Army Corps of Engineers estimated
that a harbor similar to the one designed for
Hika (Site 2) would cost about \$815,000 excluding
land and service facilities required. This should
be a low priority site. Road access to this site
is good.

No Significant Estuary

6



Site Number: 7

Name: Kewaunee Nuclear Plant

Location: Kewaunee County, NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 36, T-22 N, R-24 E.
Just south of observation tower.

Distance from existing ports: 9 miles south of Kewaunee and 15
miles north of Two Rivers.

Ownership of site: Wisconsin Public Service Corporation
(1970 Kewaunee County Plat Book).

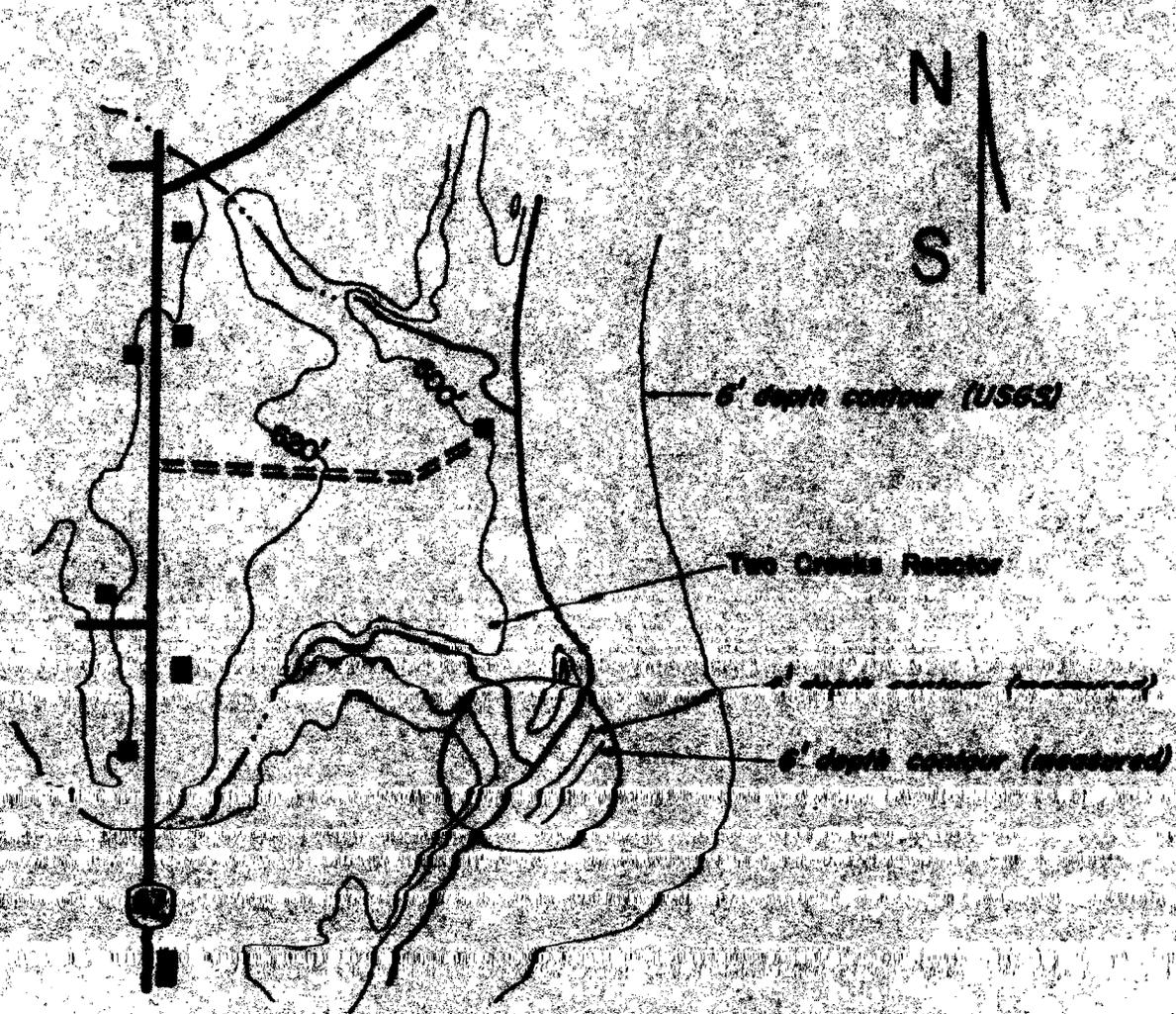
Nature of offshore depth contours: By measurement 4--5 foot
contours were located 150 feet from shore and
6 foot contours 200 to 225 feet from shore.

Estuary characteristics: No significant estuary.

General description: This site suffers from two major drawbacks--
closeness to the reactor plant and lack of space
suitable for development. Construction of the
reactor resulted in the filling of an excellent
harbor site. Today a harbor could be constructed
only through much dragline and breakwater work.
A harbor facility here should be considered only
if the need is great.

No Significant Estuary Present

7



Site Number: 8

Name: Sandy Bay

Location: Kewaunee County, NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 25, T-22 N, R-24 E.
One mile north of Kewaunee reactor.

Distance from existing ports: 8 miles south of Kewaunee and 16
miles north of Two Rivers.

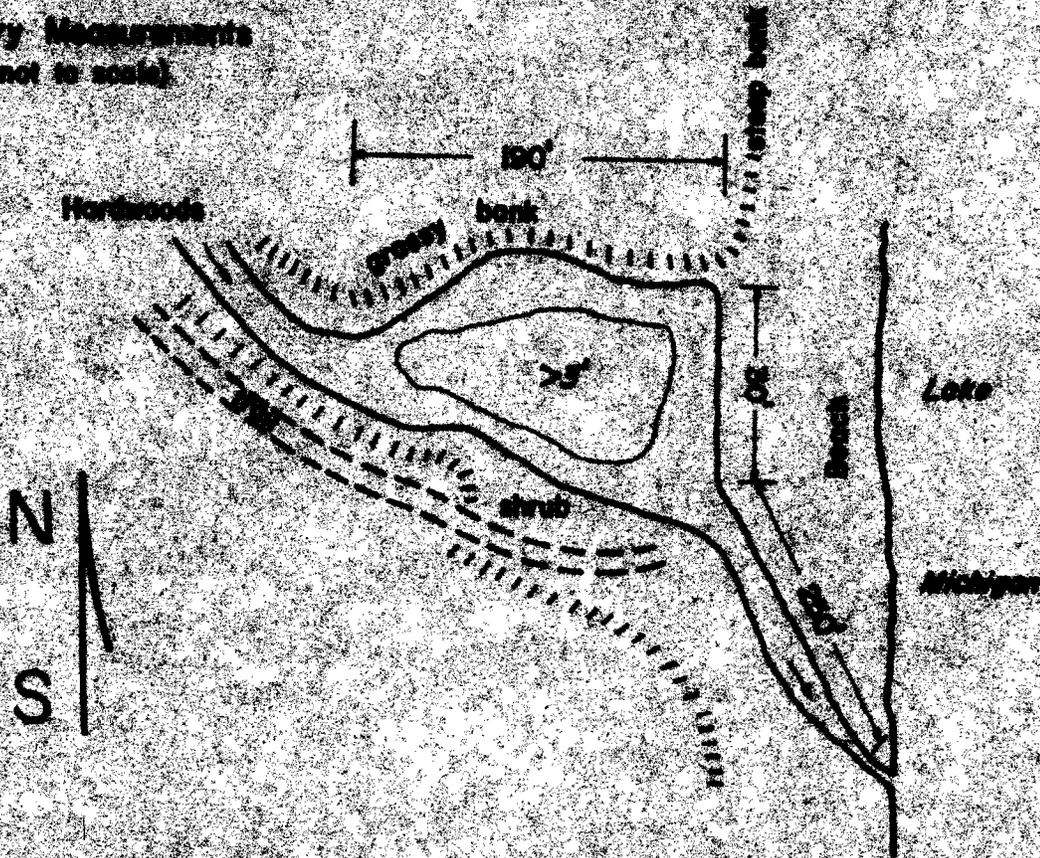
Ownership of site: Wisconsin Public Service Corporation
(1970 Kewaunee County Plat Book).

Nature of offshore depth contours: USGS maps show the 6 foot
contour to be 650 to 700 feet from shore when
the lake level is 580 feet above mean sea level.
By measurement the 6 foot contour was located 300
feet from shore. A sand bar covered by 2 to 3
feet of water is located 150 feet from shore and
the 4 foot contour about 200 feet from shore
(estimate).

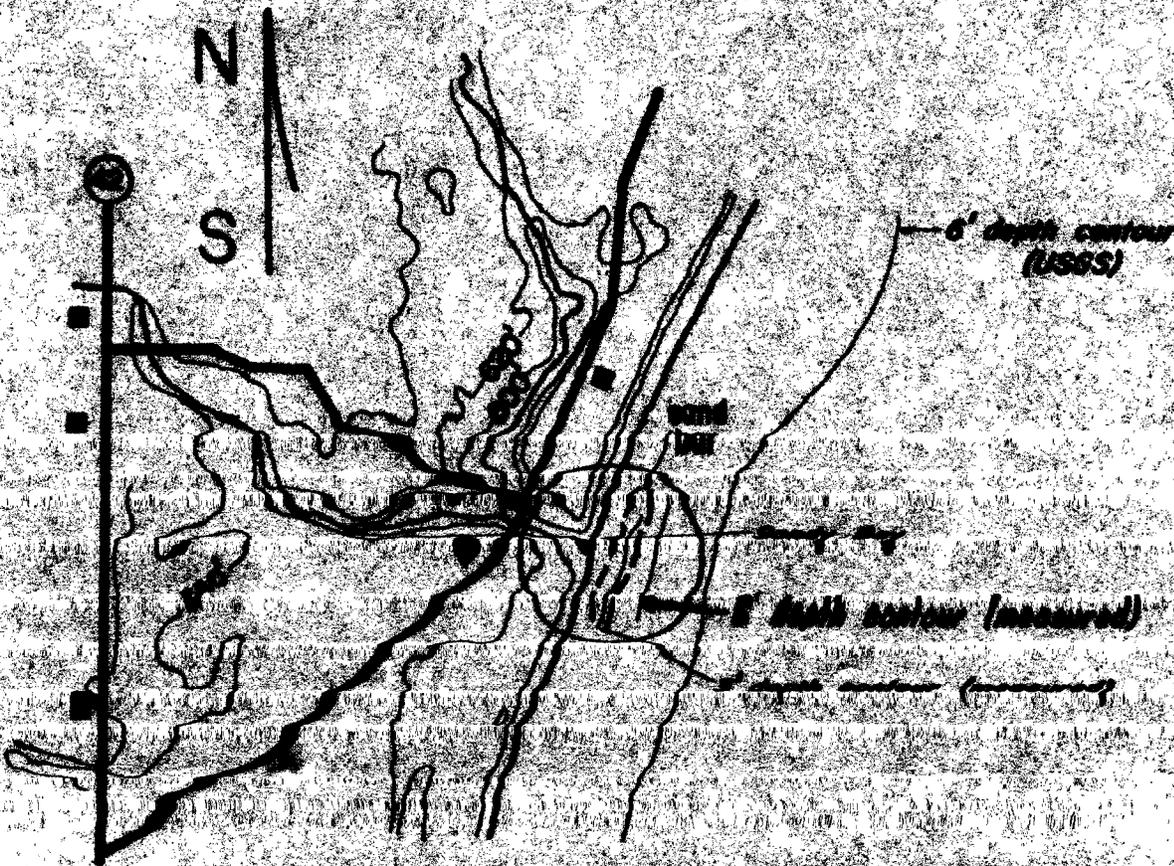
Estuary characteristics: A small estuary measuring 30 feet by
190 feet is located at this site. A small portion
of the estuary is in excess of 3 feet deep. A
high, steep bank surrounds the estuary making en-
largement by dredge or dragline difficult.

General discussion: This site offers some potential for the
construction of a small harbor. Access to the
harbor area is made difficult by the presence of
a high steep bank. Harbor development would con-
sist mainly of breakwater construction and
dredging of the lake bed. A rock rubble lake bed
may make dredging difficult. The site lies in a
small bay giving it some natural protection against
the wind. At best this should be considered a low
priority site.

Estuary Measurements
(not to scale)



8



Site Number: 9

Name: Mashek Creek

Location: Kewaunee County, SE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 32, T-24 N, R-25 E
Mouth of Mashek Creek, about 1/4 mile south of
City of Green Bay Water Utility Station.

Distance from existing ports: 8 miles south of Algoma and 3 miles
north of Kewaunee.

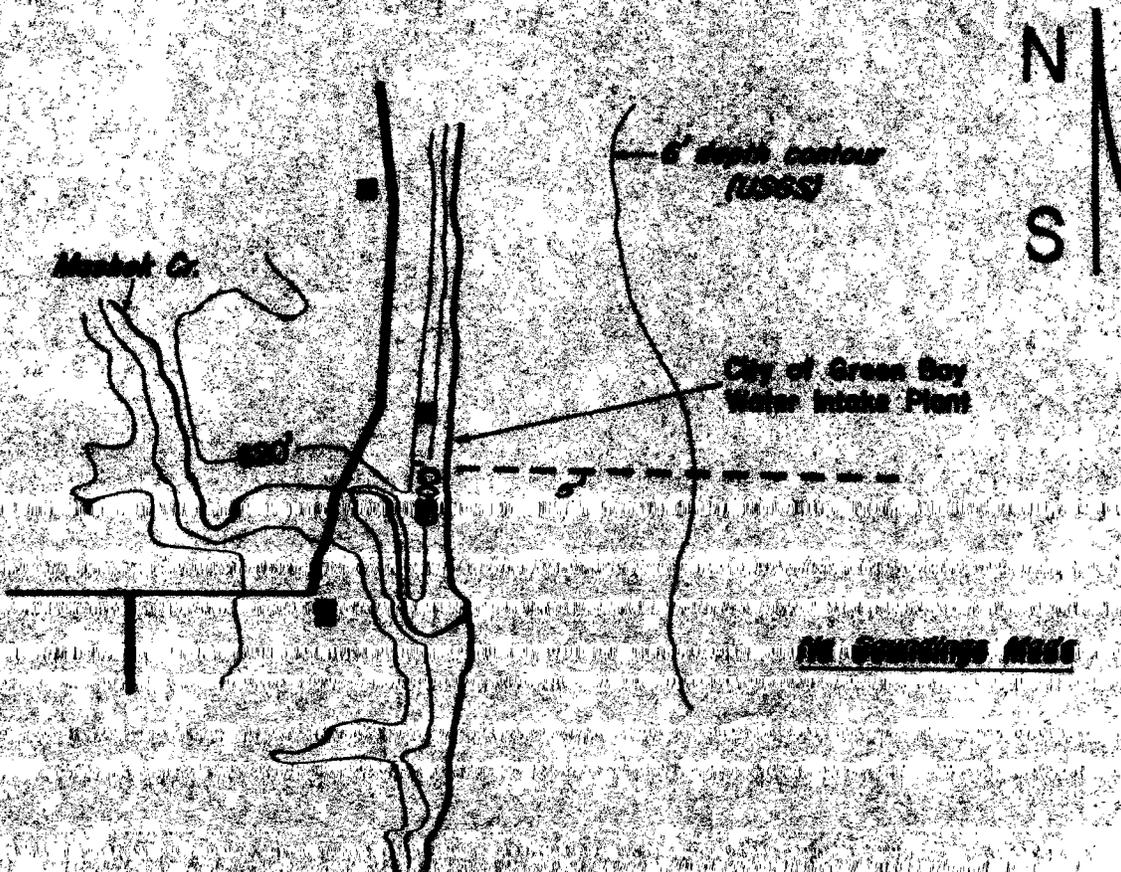
Ownership of site: Unknown--subdivided plat.

Nature of offshore depth contours: At a lake level of 580 feet
above mean sea level the 6 foot contour is located
1,100 to 1,200 feet from shore. (See general dis-
cussion).

Estuary characteristics: Very small probably insignificant estuary
present--no measurements or soundings made.

General discussion: No offshore sounding were made at this site
because of the onset of winter. The site is a
small Cedar Creek bed that could easily be dredged
to form a protective harbor, however, some break-
water construction would also be necessary. The
site lies in a natural bay that offers some protec-
tion against southeast winds. A cabin is located
immediately south of the proposed harbor location.
The presence of a few offshore rocks may make
dredging difficult. This site offers fair develop-
ment potential but because of its close proximity
to Kewaunee it should receive a low priority. Ac-
cess via a town road is good.

No Estuary Measurements Made



Site Number: 10

Name: Threemile Creek

Location: Kewaunee County. SW⁴ NW⁴ Section 10, T-24 N, R-25 E
Mouth of Threemile Creek.

Distance from existing ports: 3 miles south of Algoma and 8 miles
north of Kewaunee.

Ownership of site: State Highway Commission (partially at least).

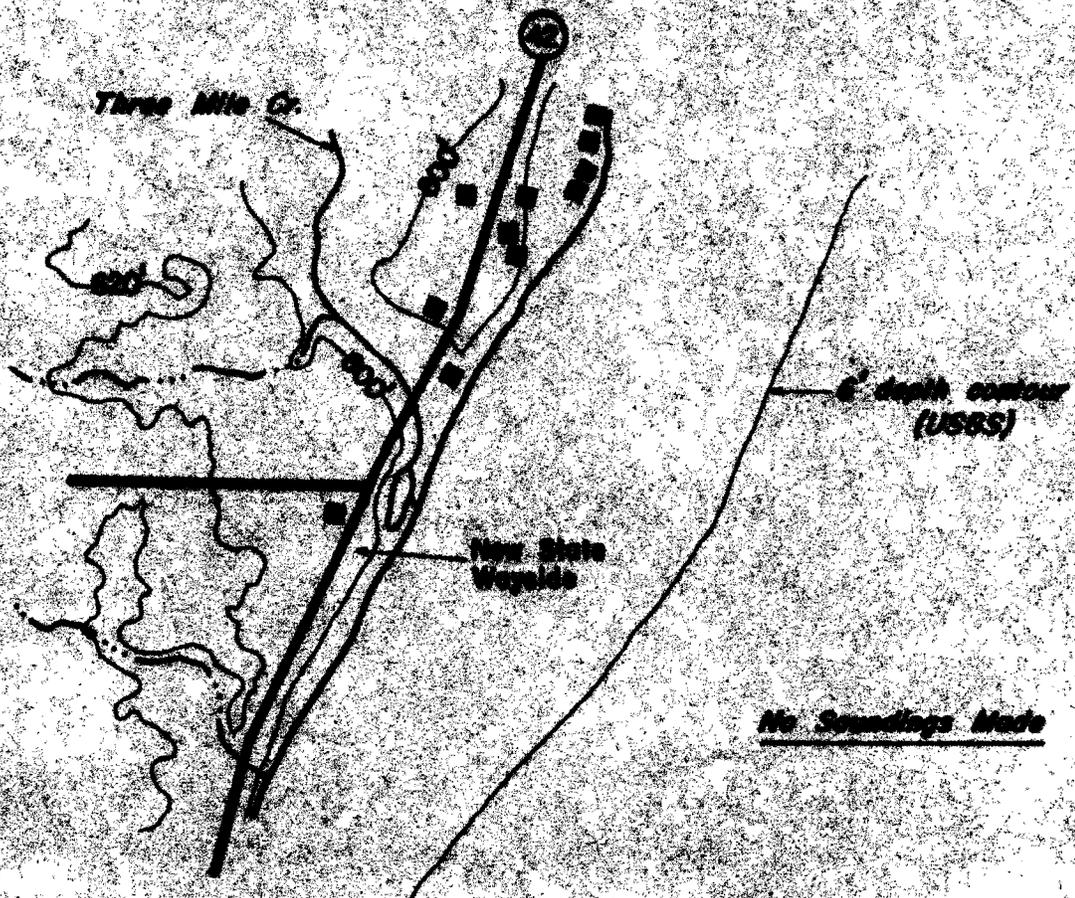
Nature of offshore depth contours: USGS maps show the 6 foot
contour to be 1,350 to 1,450 feet from shore when
the lake level is 580 feet (see general discussion).

Estuary characteristics: A small estuary is present but it offers
limited harbor potential.

General discussion: Because of the onset of winter no offshore
soundings were made. This site suffers from several
shortcomings. Namely: It's close to a harbor at
Algoma, space available is limited by homes and
Highway 42, offshore depths are shallow, and a rock
rubble bottom may restrict dredging operations. If
a harbor were to be constructed at this location
it would have to be built on the lake bed utilizing
extensive breakwater construction and considerable
dredging. The only redeeming features at this site
are the public ownership (highway wayside and re-
lated facilities) and good access via Highway 42.
This site should receive a low priority.

No Estuary Measurements Made

10



Site Number: 11

Name: Silver Creek

Location: Kewaunee County. SE $\frac{1}{4}$ SW $\frac{1}{4}$ Section 7, T-25-N, R-26 E
Mouth of Silver Creek.

Distance from existing ports: 3.5 miles north of Algoma.

Ownership of site: William Casey (1970 Kewaunee County Plat Book).

Nature of offshore depth contours: USGS maps show the 6 foot contour to be 1,250 to 1,400 feet from shore when the lake is at the 580 foot level. The measured 4 foot contour is located 150 feet from shore.

Estuary characteristics: A small estuary measuring 150 feet by 80 feet is present at this site. A large portion of the estuary is 3 feet deep or greater. The land around the estuary is a grassy sand dune area. Enlargement and deepening of the estuary could be accomplished quite easily with a dragline.

General discussion: If it were not so close to Algoma this could be an excellent harbor site, even though considerable breakwater work would have to be accomplished. The site has good access via CTH "S". One trailer house and an old cemetery presently occupy the site. Little natural wind protection is available. Too bad this site isn't located a few more miles up the shoreline towards Sturgeon Bay.

IV. LIST OF SITES HAVING LITTLE OR NO HARBOR POTENTIAL.

Sheboygan County:

1. No Name; NW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34, T-16 N, R-23 E;
located in a residential area, too small and
too steep for a good harbor site.
2. No Name; NE $\frac{1}{4}$ SE $\frac{1}{4}$ Section 27, T-16 N, R-23 E;
located in a wooded gulch too small and too
steep for a good harbor site.

Manitowoc County:

1. Point Creek; NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 12, T-17 N, R-23 E;
Posted land, site not checked.
2. Pine Creek; NW $\frac{1}{4}$ NW $\frac{1}{4}$ Section 36, T-18 N, R-23 E;
Posted land, site not checked.
3. Calvin Creek; SW $\frac{1}{4}$ SE $\frac{1}{4}$ Section 7, T-18 N, R-24 E;
Quite small with very high steep banks,
heavily wooded, not a good site.

Kewaunee County:

1. No Name; NW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 7, T-22 N, R-25 E;
Too small and too steep to make a good
harbor site.
2. No Name; SW $\frac{1}{4}$ SW $\frac{1}{4}$ Section 6, T-22 N, R-25 E;
very small and very steep, not a good
harbor site.
3. No Name; NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 31, T-23 N, R-25 E;
A small steep site located in a
residential area, not a good harbor site.
4. No Name; NE $\frac{1}{4}$ NW $\frac{1}{4}$ Section 21, T-24 N, R-25 E;
Too small and too steep and narrow to
make a good harbor site.

Estuary Measurements (not to scale)

