

**SANITARY SEWER REPORT
UPPER POST LAKE
PHASE II**

**Project #259603.SS
June 1996**

Prepared By:

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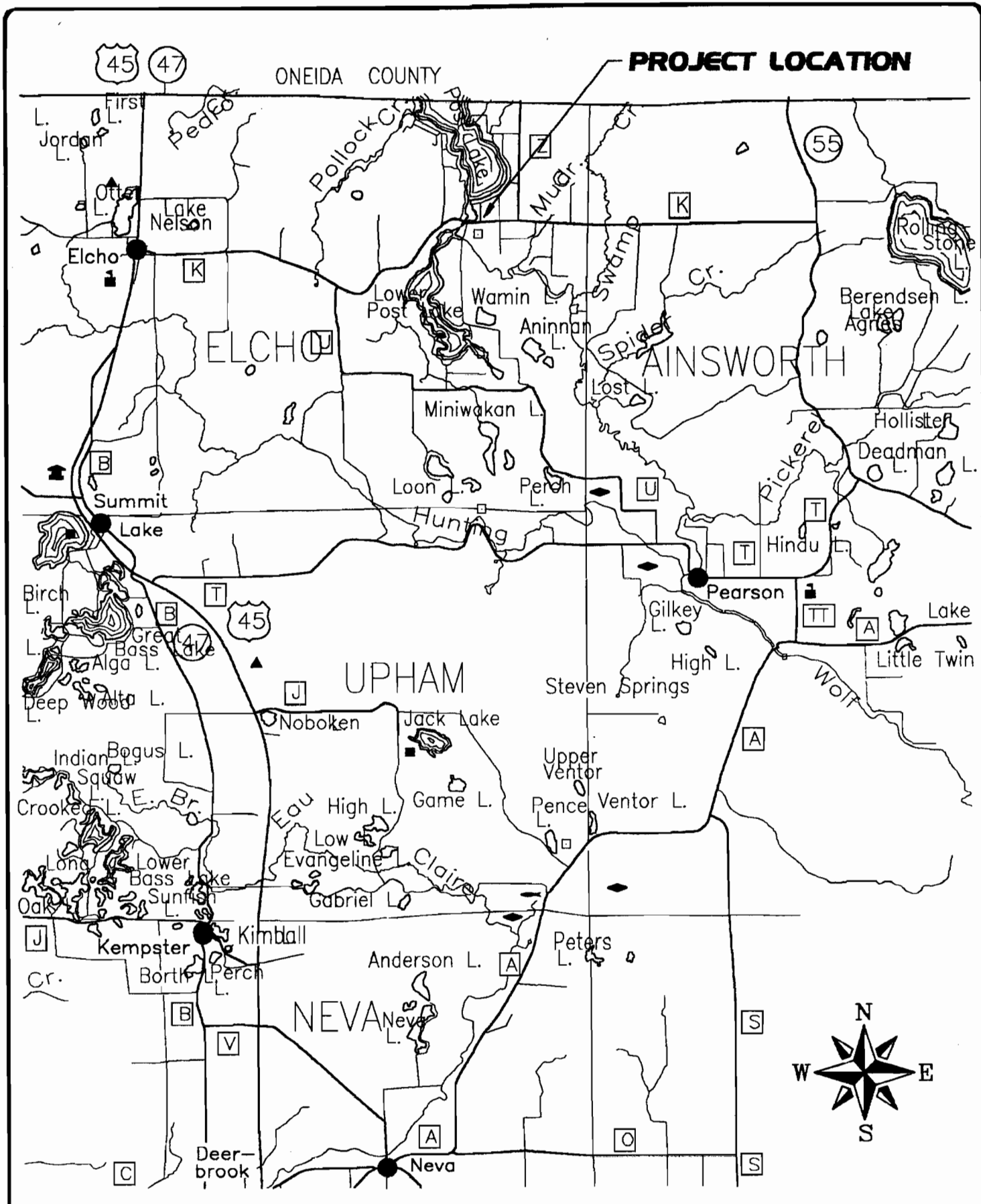
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**LOCATION
MAP**

SCALE: AS SHOWN	DATE: JUNE, 1998
FIELD BOOK: N/A	MSA PROJECT #: 259803
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CHECKED BY:	SHEET #: FIGURE 1

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INTRODUCTION/PURPOSE

Upper Post Lake is located in the north central part of Langlade County and the southeast corner of Oneida County (see Figure 1). The lake is an impoundment created by a dam on the Wolf River. Upper Post Lake is very highly developed along the western shoreline on West Shore and Pratt Road along the eastern shoreline on Post Lake Road. Other pockets of development occur along CTH K near the bridge that divides Upper and Lower Post Lakes and some scattered development along HWY "B" in the northern portion of the district. The development around the lake is predominantly single family residential except for a few cabin rental resorts and two taverns. All development around the lake is served by on-site septic systems for sewage treatment and individual wells for water supply.

The Post Lake Protection and Rehabilitation District initiated an effort in the winter of 1993/94 to obtain grants from the Department of Natural Resources to conduct a study of the existing septic systems serving the homes within the district. The study was undertaken to determine the type of systems being used and of particular concern was the siting of system in relationship to the lake and the groundwater. The purpose of this report is to outline the parameters of the study and to present the results of the inspections. Phase I of the study was completed in June 1994. This report presents the results of Phase II of the project.

SITE/SOILS DISCUSSION

The development around Upper Post Lake has been progressing for quite some time. While initial development began in the 1920's and 1930's, steady growth primarily along the shoreline has continued to a point where almost all buildable areas are used up. As a result the type of septic systems constructed and the siting of those systems, covers quite a wide spectrum. Initial development of most of the lots around the lake included the use of a "privy" or outhouse as the primary means of wastewater treatment. As improvements and upgrading of properties occurred septic systems were added to modernize the cabins and vacation homes. Most of the early septic systems installed were septic tank/seepage pit systems and those constructed in the last 20 to 30 years have been septic tank/drainfield systems. Most of the lots around the lake were platted using a 50' width, so except for areas where two lots were combined available area for replacement systems is limited.

The USDA Soil Survey Manual of Langlade County shows the soils in the area of Upper Post Lake area generally found to be in the Antigo-Pence Association. The soil manual describes these as "well drained, nearly level to very steep, silty and loamy soils on outwash plains, kames, and eskers." The soil conditions found during the course of this study closely followed the descriptions given for individual soil amp units shown in the soil manual. The subsoil in almost all borings consisted of a very sandy, gravelly, substratum which would be considered very rapidly permeable. Because of the rapid permeability most soils in the area are considered to be poor filters of septic tank effluent. In some areas fine textured (very fine sand or silty) bands occur at depths which affects the proper function of an on-site wastewater disposal system.

STUDY PROCEDURE

Post Lake Protection District personnel selected certain areas of the district to be inspected during each phase of the study. Phase I of the study was conducted along the eastern shoreline of the lake. This was the area that was suspected to have the most systems of questionable status. In order to round out the study area and complete whole sections at one time those homes located along HWY "B" and Wolf River Road which fell within the boundaries of the district were also included in that phase of the study. Phase II continued from the point where Phase I ended on Post Lake drive and extended to the western shoreline along West Shore Drive.

Because of the seasonal and intermittent occupancy of most of the dwellings in the study area, the district sent out questionnaires to all land owners. The septic system questionnaire asked for information regarding the type of system on the lot, the age, usage, and location of the system in relationship to the lot lines, the lake and buildings. These surveys were returned by many of the land owners and were quite useful in identifying the location of the drainfield during the inspection. A copy of the questionnaire is included in this report (see Figure 2).

The inspection of each of the lots was conducted using the owners questionnaire as a starting point. Each lot inspected was documented on an inspection report form (see Figure 3). The actual field copies of the inspection forms and a soil boring log are in the Appendix. The inspection report form identifies the property by fire number, road name, and owner's name, if known. The report contains a sketch indicating the relative position of the septic system on the lot and it has a section which was used to indicate a reason for failure for that particular system if applicable.

The following guidelines were set up by the district and followed during the course of this study:

- septic systems were to be inspected to determine if they were sited in code compliant soils.
- systems installed after 1986 did not need to be inspected (it was felt that these systems were most likely installed according to current code).
- privy sites were to be inspected but were not to be high priority, those lots which only have a privy as the primary means of wastewater disposal are included with the inspection reports as miscellaneous reports. They are not included in the calculations for system failure rates.
- holding tank sites were not inspected.

The inspection of each property consisted of the following general items:

- identify the septic system location and type.
- attempt to measure the depth of the drainage system.
- determine the suitability of the soils to a depth of 3' below the bottom of the system by either drilling to the depth with hand auger or by use of a hand level determine the systems relative height above lake level.
- draw a sketch showing system components and dimensions to lake, well, buildings, etc.
- fill out form and boring log if soil boring was required. Indicated reason for failure of the system if applicable.

During an inspection of a lot notes were made of such things as relationships of the septic system drainage area to wells, lakeshore, buildings, etc. If these setbacks did not meet current code, the system was not necessarily checked as failed, unless it also was sited in non-code compliant soils. A failing private sewage system was one which causes or results in any of the following conditions:

1. The discharge of sewage into surface water or groundwater.
2. The introduction of sewage into zones of saturation which adversely affects the operation of a private sewage system.
3. The discharge of sewage to a drain tile or into zones of bedrock.
4. The discharge of sewage to the surface of the ground.
5. The failure to accept sewage discharges and back up of sewage into the structure served by the private sewage system.

**UPPER POST LAKE
SANITARY SURVEY RESULTS**

Total number sites inspected - 60

Number of sites with septic system determined to be too close to seasonally saturated soils as defined in ILHR 83 State Plumbing Code - 20

Failure rate for septic system sites

20 out of 60 - 33%

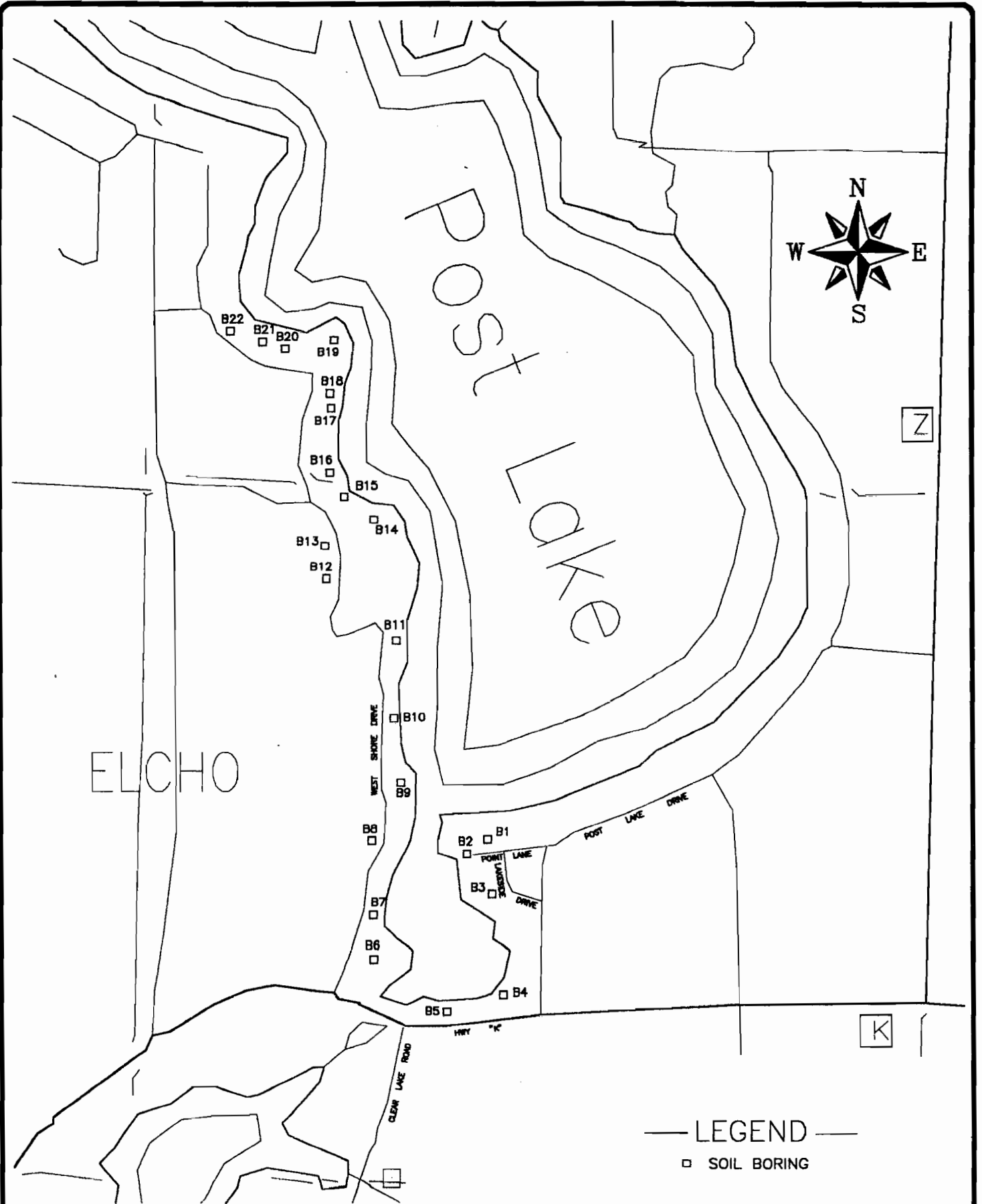
All septic system evaluation sheets are located in the Appendix of this report. The list following this page identifies the sites found to have a "failed" septic system as explained on page 3 of this report.

**UPPER POST LAKE
SANITARY SEWER SURVEY RESULTS***

REPORT NO.	FIRE NO.	ROAD	OWNER	REASON FOR FAILURE **
10	W8712	HWY "K"	Meyer	1
12	W8788	HWY "K"	White	1 & 2
14	N11429	Maple	Cormier	1 & 4
15	N11435	Maple	Boettcher	1
16	N11437	Maple	Wellhouse	1 & 5
19	N11489	West Shore	Lanser	2
21	N11493	West Shore	Wordell	2
26	N11519	West Shore	Stryzewski	2
30	N11553	West Shore	Hamann	2
33	N11614	West Shore	Feutz	1
37	N11651	West Shore	Koenig	1
38	N11655	West Shore	Eckhardt	1
50	N11751	West Shore	Kratzke	2
51	N11755	West Shore	Kastenschmidt	2
53	N11763	West Shore	Haiduk	1
54	N11765	West Shore	Kennedy	2
56	N11775	West Shore	Bomberg	2
57	N11779	West Shore	Magedanz	2
58	N11783	West Shore	Hubatch	2
59	N11787	West Shore	Schleis	2

* Only properties which were identified as having a "failed" system are listed.

** Correspondence to the list of reason for failure on Page 3 of this report.



**PHASE II
SOIL BORINGS**

SCALE: AS SHOWN	DATE: JUNE, 1998
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