

LPL-232

**SANITARY SEWER REPORT
UPPER POST LAKE**

**Project #10432.SS
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INTRODUCTION/PURPOSE

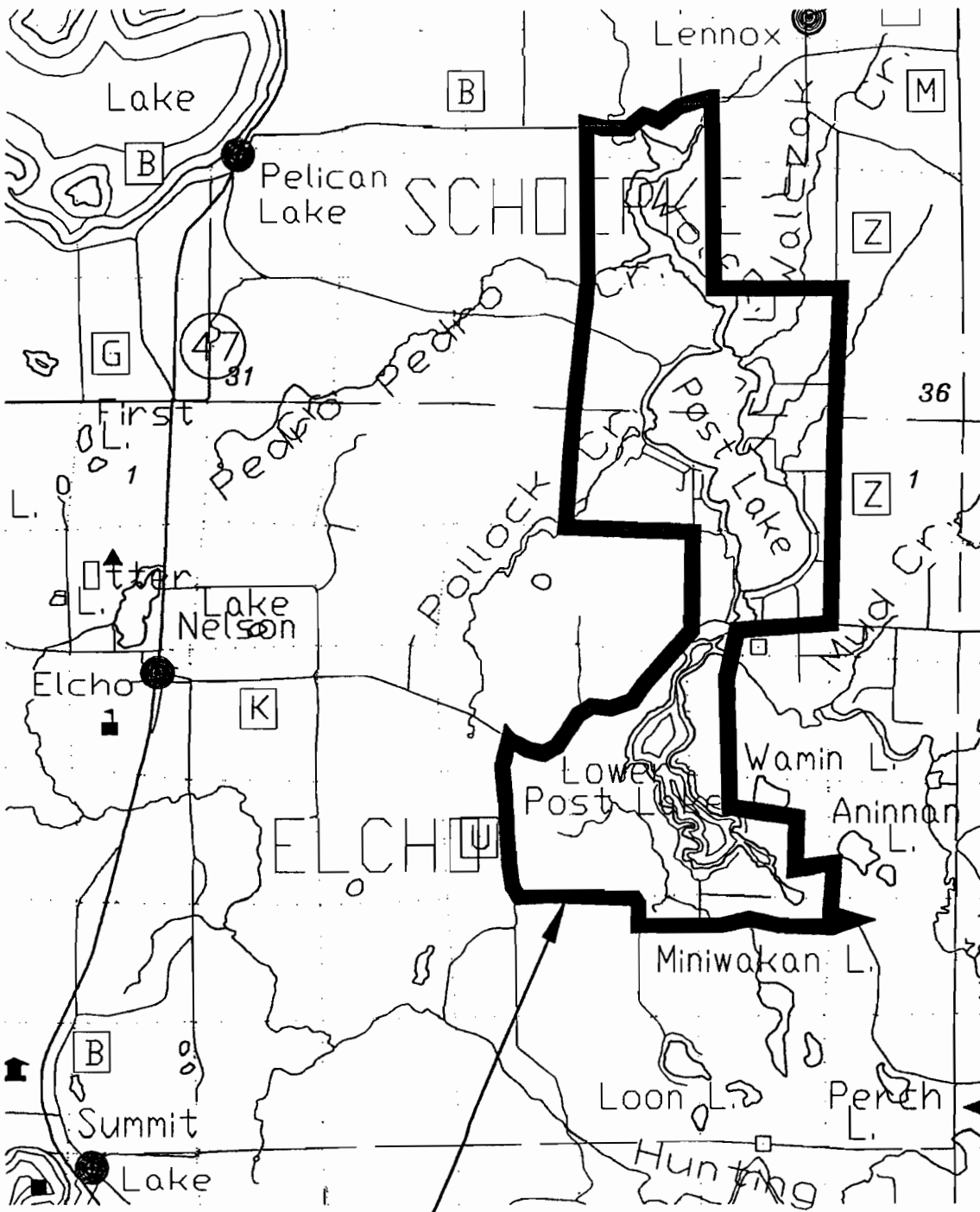
Upper Post Lake is located in the north central part of Langlade County and the southeast corner of Oneida County. The lake is an impoundment created by a dam on the Wolf River. Upper Post Lake is very highly developed along the western shoreline on West Shore and Pratt Road along the eastern shoreline 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. This study was under taken 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 which ultimately drains into the lake. The purpose of this report is to outline the parameters of the study and to present the results of the inspections performed during May and June 1994.

SITE/SOILS DISCUSSION

The development around Upper Post Lake has been progressing for a 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 map 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.



POST LAKE
REHABILITATION
AND PROTECTION
DISTRICT BOUNDARY

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PLATE 1	
POST LAKE	

MID-STATE ASSOCIATES, INC. Engineers · Architects · Planners · Surveyors · Scientists 1230 South Blvd. · Baraboo, Wisconsin · 608-356-2771		CADD # POSTLAKE	
		DRAWN BY PM	DATE 7-20-94
CHECKED BY		SCALE NONE	FILE NO.

FIGURE 1

STUDY PROCEDURE

Due to the availability of limited grant monies to fund this project the Post Lake Protection District personnel selected certain areas of the district to be inspected in Phase I of the study. It was felt that the initial area to be inspected should be the lots on 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 this phase of the study.

Because of the seasonal and intermittent occupancy of most of the dwellings in the study area, the district was asked to send out questionnaire's to all land owners. This septic system evaluation 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.

The inspection of each of the lots within the study area was conducted using the owners questionnaire as a starting point. Each lot inspected was documented on an inspection report form, a copy of which is included in this report. The actual field copies of the inspection forms and a soil boring log are being furnished as separate documents. 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 1982 did not need to be inspected (it was felt that these systems were most likely installed according to current code) (this date was changed to 1985 part way through the study period).
- privy sites were to be inspected but were not considered 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 did not need to be 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 a bucket 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.
- take pictures for future reference.
- 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 - 142 (includes miscellaneous surveys)

Number of sites with septic system or surface disposal - 122

Failure rate for septic system sites

78 out of 122 - 63.9%

**UPPER POST LAKE
SANITARY SEWER INDIVIDUAL LOT RESULTS**

Report Number	Fire Number	Road Name	Owner	Reason for Failure
Oneida County				
2	691	Wolf River Road	Rydlewicz	2
6	675	Wolf River Road	Bennett	1
	380	Panka Road	Knuth	4
13	103	Klima Road	Steidl	4
14	109	Klima Road	Kasperzak	1
15	111	Klima Road	Helms	1
16	115	Klima Road	Ladik	2
17	121	Klima Road	Szablewski	1
18	127	Klima Road	Stewart	1
19	133	Klima Road	Bourdo	1
20	139	Klima Road	Wilkes	1
21	145	Klima Road	Baer	1
22	658	Repinski Road	Gengalo	5
28	490	Post Lake Road	Walentowski	4
Langlade County				
29	N12098	Post Lake Road	Lewis	4
30	N12096	Post Lake Road	Tetzlaff	5
31	N12094	Post Lake Road	Kazperzak	1
33	N12078	Post Lake Road	Fischer	1
34	N12072	Post Lake Road	Lund	1
35	N12066	Post Lake Road	Hanson	1
36	N12058	Post Lake Road	Pine Point Resort	1

Report Number	Fire Number	Road Name	Owner	Reason for Failure
39	N12046	Post Lake Road	Steffens	1
40	N12028	Post Lake Road	Maves	2
41	N12022	Pine Lane	Kudick	1
42	N12016	Pine Lane	Maciejewski	1
43	N12006	Pine Lane	Jaquette	1
44	N12000	Pine Lane	Holmen	1
45	N11994	Pine Lane	Rotolo	1
46	N11990	Pine Lane	Hienz	1
47	N11987	Pine Lane	O'Shea	1
48	N11942	Post Lake Road	Gehring	1/4/5
51	N11926	Post Lake Road	Loche	1
52	N11924	Post Lake Road	Gilbert	1/5
53	N11916	Post Lake Road	Venn	1
54	N11913	Post Lake Road		2/4
57	N11830	Post Lake Road	Michaels	1
60	N11802	Post Lake Road	Nelson	4
64	N11766	Post Lake Road	Boettcher	1/5
66	N11750	Post Lake Road	Parker	5
67	N11740	Post Lake Drive		2/4
68	N11724	Post Lake Drive	Koenig	2
69	N11731	Post Lake Drive	Schmidt	5
70	N11720	Post Lake Drive	Reichenbacher	2
71	N11714	Post Lake Drive	Tepp	2
72	N11708	Post Lake Drive	Kraemer	1/2
73	N11696	Post Lake Drive	Huebscher	2

Report Number	Fire Number	Road Name	Owner	Reason for Failure
74	N11692	Post Lake Drive	Scroggins	2
75	N11688	Post Lake Drive	Reid	2/4
77	N11678	Post Lake Drive	Reid	2
79	N11658	Post Lake Drive	Gonzales	2
80	N11654	Post Lake Drive	Maier	2
81	N11650	Post Lake Drive	Marvin	2
83	N11642	Post Lake Drive	Hoffman	1/2
86	N11628	Post Lake Drive	Milligan	1/2
87	N11624	Post Lake Drive	LeNoble	1
88	N11600	Post Lake Drive	Otto	1
89	N11594	Post Lake Drive	Sunset Resort	1
Privy	N11598	Post Lake Drive	Kimichik	1
91	N11580	Post Lake Drive	Seiser	1
92	N11572	Post Lake Drive	Coffey	1
93	N11568	Post Lake Drive	Eul	1/4
94	N11564	Post Lake Drive	Remsing	1
95	N11560	Post Lake Drive	Wochinski	4
96	N11556	Post Lake Drive	Hrouda	1
97	N11542	Post Lake Drive	Geotz	1
98	N11538	Post Lake Drive	Schuster	1
99	N11532	Post Lake Drive	Simon	1
100	N11524	Post Lake Drive	Drewek	1
Privy	N11522	Post Lake Drive	Drewek	1
101	N11516	Post Lake Drive	Simon	1/5
Privy	N11506	Post Lake Drive	Kakes	1

Report Number	Fire Number	Road Name	Owner	Reason for Failure
102	N11502	Post Lake Drive	Lee	1
103	N11495	Post Lake Drive	Humphrey	1
104	N11492	Post Lake Drive	Langlois	1
106	N11482	Post Lake Drive	Frederick	1
107	N11486	Post Lake Drive	Michaels	1
112	N11408	Post Lake Drive	Belott	1
116	W8714	North Point Lane	Malchow	1
117	N11420	Post Lake Drive	Grams	1
119	W8858	North Point Lane	Meyer	1
121	N11939	Pratt Road	Olson	1
Oneida County				
122	729	McGuire Road	Dewey	1