

**SANITARY SEWER REPORT
LOWER POST LAKE**

**Project #10432.SSR
July 1994**

Prepared By:

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INTRODUCTION/PURPOSE

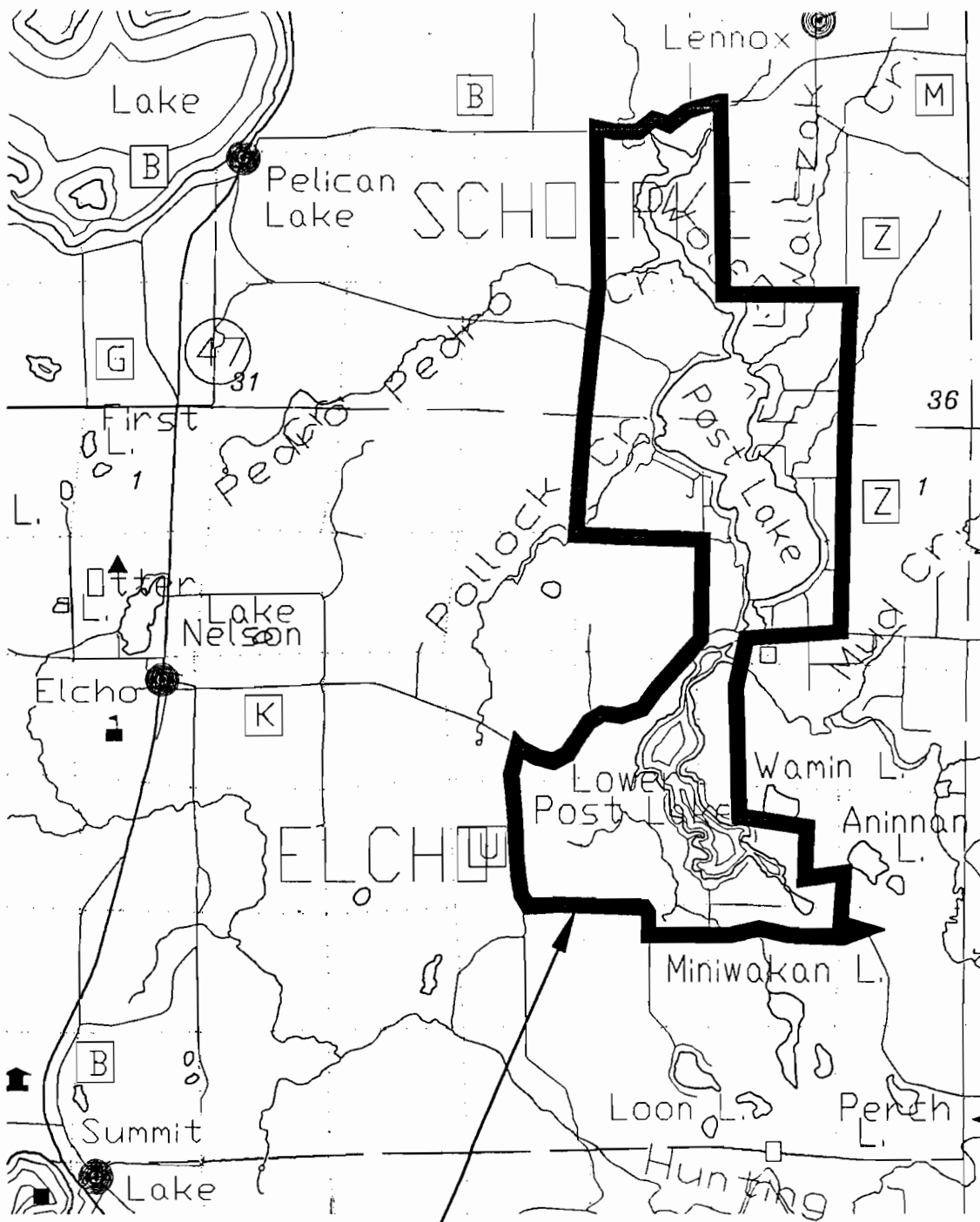
Lower Post Lake is located in the north central part of Langlade County. The lake is an impoundment created by a dam on the Wolf River. Lower Post Lake is very highly developed along the western shoreline on Isle of Pines Drive and along the eastern shoreline on Clear Lake Road, Circle Drive and Woodland Lane. Other pockets of development occur along CTH K near the bridge that divides Upper and Lower Post Lakes. The development around the lake is predominantly residential except for two campground resorts, one tavern, and a body shop. 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 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 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 Lower 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 Lower 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

F.B.		CADD / POSTLAKE		SHEET 1 of 1	
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 western 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 "U" and HWY "K" 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.

POST LAKES PROTECTION & REHABILITATION DISTRICT
Land Owner's Questionnaire - Septic System Evaluation Survey
December 1993

Please Complete and Return To: Post Lakes Protect. & Rehab. District, P.O. Box 248, Elcho, WI 54428

1. Owner's Name Cliff Roberts
 Owner's Mailing Address N 10783 W. Isle of Pine Dr
 Property Address N 10783 W. Isle of Pine Dr.
 Fire Number N 10783 Tax Number 8-2242

2. Owner at Time of Construction Cliff Roberts
 Date of Construction 6-1990
 Septic System Contractor Gary Haviland
 Type of System Septic Field In-Ground Pressure Holding Tank
 Cesspool Mound Privy
 Other _____

Date Last Pumped January 1994

3. Type of Property (Please indicate number of days occupied per year in appropriate space)

<u>TYPE</u>	<u>SEASONAL</u>	<u>YEAR-ROUND</u>	
Home	_____	<u>X</u>	Bedrooms <u>2</u>
Duplex	_____	_____	Bedrooms _____
Multi-Family	_____	_____	Bedrooms _____
Motel	_____	_____	Units _____
Cottages	_____	_____	Units _____
Restaurant	_____	_____	Seats _____
Campsite	_____	_____	Sites _____
Other	_____		

4. Has your water been tested recently? YES NO

If yes, date of test 1993

Was it safe? yes Unsafe? _____

Have you ever had a problem with your system? YES NO

If yes, was it: Building Backup Surface Discharge
 Odor Soggy Ground

(PLEASE COMPLETE REVERSE SIDE)

Mid-State Associates, Inc.
1230 South Boulevard
Baraboo, Wisconsin 53913

Date: _____

Project No. 10432
Upper and Lower Post Lakes
Soils and Wastewater Disposal
Evaluation

Field I.D. Number: _____

Photo Number: _____

Type of Use: _____

Type of System: (Check only one)

- | Non-Pressurized Distribution | Pressurized Distribution | Other |
|---|---|---------------------------------------|
| <input type="checkbox"/> Seepage Bed | <input type="checkbox"/> Mound | <input type="checkbox"/> Holding Tank |
| <input type="checkbox"/> Seepage Trench | <input type="checkbox"/> In-Ground Pressure | <input type="checkbox"/> Pit Privy |
| <input type="checkbox"/> Seepage Pit | | <input type="checkbox"/> Vault Privy |
| <input type="checkbox"/> System-In-Fill | | |

Location: _____

Comments: _____

Field Sketch:

A failing private sewage system is one which causes or results in any of the following conditions:
(Check one)

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

SOIL BORING EVALUATED Yes _____ No _____

Comment: (Boring done on adjacent Lot) etc.

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.

**LOWER POST LAKE
SANITARY SURVEY RESULTS**

Total number sites inspected - 111 (includes miscellaneous surveys)

Number of sites with septic system or surface disposal - 101

Failure rate for septic system sites

65 out of 101 - 64.3%

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

Report Number	Fire Number	Road Name	Owner	Reason for Failure
Privy	W8670	Pioneer Road	Converse	2
3	W8722	Pioneer Road	Wegner	2
5	W8748	Pioneer Road	Thomas	1
7	W8848	Pioneer Road	Osten	4
Privy	W8787	Pioneer Road		2
8	W8744	Fond Du Lac Lane	Archer	2
9	W8720	Fond Du Lac Lane	Olsen	2/5
10	W8716	Fond Du Lac Lane	Basler	2
11	W8710	Fond Du Lac Lane	Myers	2
12	W8702	Fond Du Lac Lane	Hoffman	2/5
13	N10642	East Isle of Pines Drive	Meyer	1
15	N10632	East Isle of Pines Drive	Mateicka	2
16	N10628	East Isle of Pines Drive	Iselin	2
18	N10621	East Isle of Pines Drive		2
19	N10608	East Isle of Pines Drive	Bernarde	2/5
20	N10604	East Isle of Pines Drive	Little	2
21	N10600	East Isle of Pines Drive	Raisliger	2
22	N10596	East Isle of Pines Drive	Raisliger	2
23	N10588	East Isle of Pines Drive	Much	2
24	N10578	East Isle of Pines Drive	Goff	2
25	N10581	East Isle of Pines Drive	Flora	2/5
26	N10570	East Isle of Pines Drive	Herzog	1/2
27	W8969	CTH K	Cmelak	1/2

Report Number	Fire Number	Road Name	Owner	Reason for Failure
28	W8979	CTH K	Cmelak	1/2/5
33	N10530	East Isle of Pines Drive	Brue	4
34	N10528	East Isle of Pines Drive	Brue	1/2
35	N10502	East Isle of Pines Drive	Berens/Wolters	1/2
36	N10500	East Isle of Pines Drive	Tennessee/Brue	1/2
37	N10508	East Isle of Pines Drive	Hassman	4/5
38	N10567	West Isle of Pines Drive	Himmelreich	1
39	N10581	West Isle of Pines Drive	Ihde	1/4
41	W8533	Toepfer Lane	Dolezal	2
43	W8522	Toepfer Lane	Rosenow	1
44	W8520	Toepfer Lane	Thoma	1
45	W8514	Toepfer Lane	Dolezal/Robbins	1
46	W8501	Toepfer Lane	Brandt	1
47	N10633	West Isle of Pines Drive	Rosenow	2
48	N10651	West Isle of Pines Drive	Klink	1
49	W8947	Cathedral Point Road	Merry	1
52	W8930	Cathedral Point Road	Mack	1
53	W8952	Cathedral Point Road	Nowak	1
54	N10667	West Isle of Pines Drive	Wauash	1
55	N10681	West Isle of Pines Drive	Flesch	1
57	N10703	West Isle of Pines Drive	Blaser	4
60	N10727	West Isle of Pines Drive	Poppy	1
61	N10731	West Isle of Pines Drive	Aulik	1
62	N10737	West Isle of Pines Drive	Herring	1
63	N10743	West Isle of Pines Drive	Ehlers	1

Report Number	Fire Number	Road Name	Owner	Reason for Failure
64	N10767	West Isle of Pines Drive	Federman	1
67	N10779	West Isle of Pines Drive	Westfahl	1
68	N10787	West Isle of Pines Drive	Anderson	1
69	N10791	West Isle of Pines Drive	Hahm	1
73	N10810	West Isle of Pines Drive	Preimesberger	1
74	W9289	HWY K	Olinski	2
75	W9419	HWY K	Hess	1/5
76	W9379	HWY K	Bell/Winter	2
77	W9033	HWY K	Eisenman	2/5
78	W9119	HWY K	Gnevo	2/5
80	W8959	HWY K	Christopherson	2
Privy	W8945	HWY K	Willms	1
81	W8933	HWY K	Christofferson	2
81	W8931	HWY K	Christofferson	2
82	W8905	HWY K	Flesch	2
83	W8895	HWY K	Robbin	1
84	W8899	HWY K	Gebhart	2/4
85	W8885	HWY K	Merry	2
86	W8855	HWY K	Parenti	1
94	N10514	Isle of Pines Drive	Bardele	4
95	W8790	CTH U	Palmer	2/5