ORIGINAL

SPAULDING CONSULTANTS, LLC

January 23, 2008

Ms. Magalie Salas
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Rhinelander Hydroelectric Project, FERC Project No. 2161 -027
Invasive Species Survey Report

Dear Ms. Salas:

In accordance with the monitoring plan for invasive species, Rhinelander has completed a second year of surveillance. Enclosed please find an original and eight (8) copies of a report documenting the results of the second year of service. Also enclosed is a copy of a letter sent to the Wisconsin Department of Natural Resources and the U.S. Fish and Wildlife Service requesting their comments on the survey and report. As indicated in the request letter their comments were due January 19, 2008. To date we have received an email (enclosed) from the USFW indicating no comments and no response from the WDNR. If there are any questions please contact me at 952-544-8133.

Sincerely,

SPAULDING CONSULATANTS, LLC

Douglas A. Spaulding, P.E.

Enclosure

cc: Mr. Bruce Olson, Wausau Paper

8441 WAYZATA BLVD ■ SUITE 101 ■ GOLDEN VALLEY MN 55426
952-544-8133 ■ FAX 763-412-4289 ■ DOUG@SPAULDINGCONSULTANTS.COM

SPAULDING CONSULTANTS, LLC

December 18, 2007

Ms. Louise Clemency
U.S. Fish and Wildlife Service
Green Bay ES Field Office
2661 Scott Tower Drive
New Franken, WI 54229

FERC Licensing Review
Wisconsin Department of Natural Resources
101 South Webster
Madison, WI 54707

Re: Rhinelander Hydroelectric Project, FERC Project No. 2161, Invasive Species Survey

Dear Ms. Smith and Sir/Madam:

Article 404 of the FERC license for Project No. 2161 requires that Wausau Paper (Wausau) prepare a plan to monitor invasive species for the Rhinelander Hydroelectric Project. This plan was approved by the FERC on April 27, 2006.

Enclosed is a copy of Wausau's second annual survey. Please review this survey and provide us with comments on or before January 19, 2008. We will then forward the survey to the FERC.

Sincerely,

SPAULDING CONSULTANTS, LLC

Douglas A. Spaulding, P.E.,
Agent for Wausau Paper

cc: Mr. Bruce Olson, Wausau Paper

8441 WAYZATA BLVD ■ SUITE 101 ■ GOLDEN VALLEY, MN 55426
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Doug Spaulding

From: Louise_Clemency@fws.gov
Sent: Tuesday, January 08, 2008 2:04 PM
To: doug@spauldingconsultants.com
Subject: Rhinelander FERC No. 2161, Invasive Species Survey

Dear Mr. Spaulding,

We have received the December 18, 2007 Invasive Species Survey for FERC No. 2161. We have no comments on the document.

Louise Clemency
Field Supervisor
U.S. Fish and Wildlife Service
Green Bay Ecological Services Office
2661 Scott Tower Drive
New Franken, Wisconsin 54229-9565
920-866-1725
920-866-1710 Fax

2007
INVASIVE SPECIES REPORT
FOR THE
RHINELANDER HYDROELECTRIC PROJECT
ONEIDA COUNTY, WISCONSIN
FERC Project No. 2161

Submitted By
Wausau Paper Corporation

December 2007

Prepared By
North American Hydro, Inc.
P.O. Box 167
116 State Street
Neshkoro, Wisconsin 54960
(920) 293-4628

TABLE OF CONTENTS

1.0 Summary

From July 25, 2007 through July 30, 2007, a meandered survey for purple loosestrife (*Lythrum salicaria*) and Eurasian water milfoil (*Myriophyllum spicatum*) was performed at the Rhinelander Hydroelectric Project in Oneida County, Wisconsin. During this survey, no Eurasian water milfoil (EWM) was found in 2007 which is the same as the 2006 survey. Seven occurrences of purple loosestrife (PL) were found compared to nine occurrences in 2006. Of these seven occurrences found in 2007, two were located in the impoundment upstream from the dam and five were located downstream from the dam in the bypass reach and tailrace areas. This compares with one located in the impoundment and eight downstream from the dam in 2006. All PL plants observed in 2007 were pulled except for the furthest occurrence downstream from the dam. This was labeled as RLND PL002 and was originally observed in 2006 on the right side of the river approximately 400' downstream from the Davenport Street bridge.

A point intercept survey for EWM was performed concurrently with the meandered survey at the Project and no EWM was found.

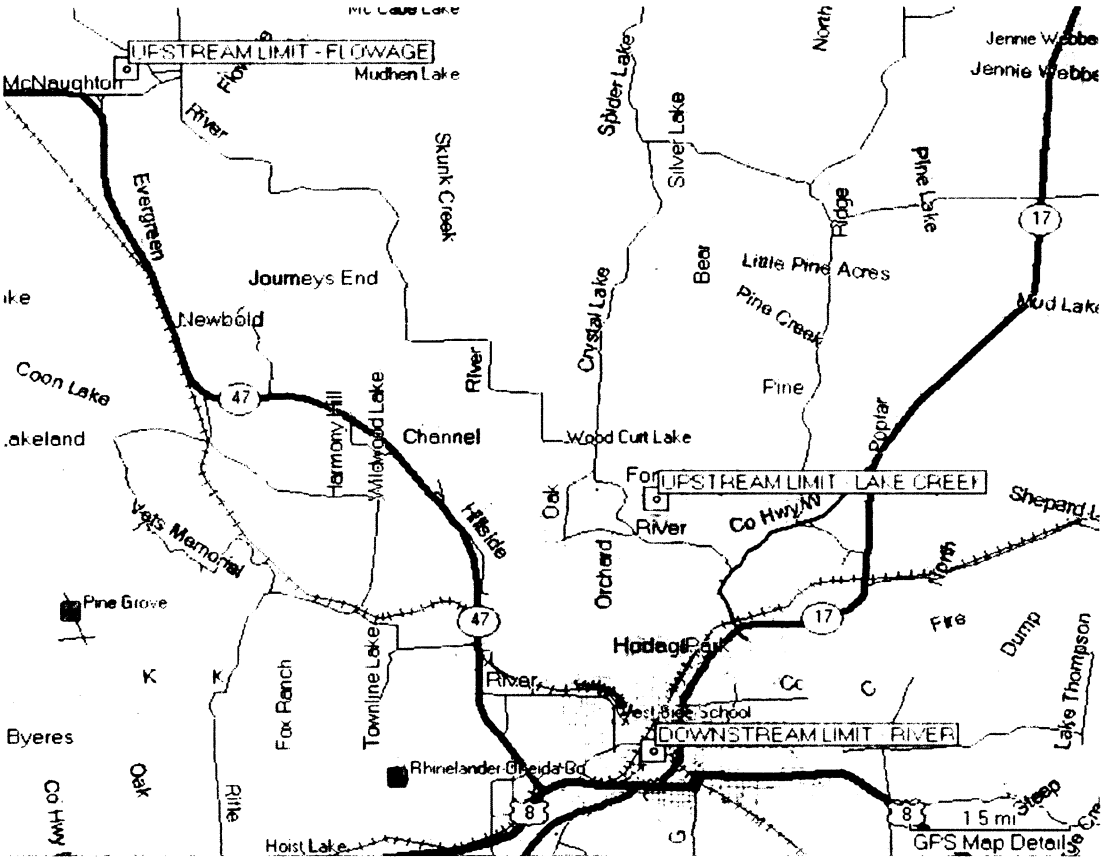
2.0 Methods

The upstream and downstream survey limits for both PL and EWM are shown on the following map labeled Survey Limits and were defined as follows. The waters and shoreline of the Rhinelander Flowage from N45° 44' 10.1" W89° 31' 08.4" WGS84 approximately 0.5 miles upstream of the McNaughton Road Bridge to the dam at the Rhinelander Hydroelectric Project; the waters and shoreline of the power canal, bypass reach, and tailrace from the dam at the Rhinelander Hydroelectric Project downstream to N45° 38' 12.4" W89° 25' 00.0" WGS84 approximately 400' downstream of the Davenport Street Bridge; the waters and shoreline of Boom Lake, Bass Lake, and Thunder Lake; the waters and shoreline of Lake Creek up to the confluence with the stream from South Pine Lake at N45° 40' 24.5" W89° 24' 57.5" WGS84.

2.1 Purple Loosestrife

In 2006, a baseline survey for PL was performed at the Rhinelander project. Prior to the 2006 field survey, information on PL distribution and treatment was acquired from the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the Wisconsin Department of Natural Resources (WIDNR). In addition, a wetland analysis performed in 1997 by Northern Ecological Services, Inc. and an Environmental Inspection Report performed by the Federal Energy Regulatory Commission (FERC) were analyzed to assist in the planning of the 2006 baseline PL survey.

The 2007 PL meander survey was performed by scanning the shoreline and shallow areas of the project waters by two people from a boat.



SURVEY LIMITS

Certain areas were surveyed from land where it was not possible to observe from the boat. These would include the power canal, the bypass reach, the tail race, a small bay of Lake Creek, and a large pond on the north side of the golf course between River Road and Manor Country Road. High powered (15 x 50) image stabilization binoculars were used to facilitate the spotting of plants. When PL was identified, a handheld Garmin Global Positioning System (GPS) unit with Wide Area Augmentation System (WAAS) enabled was used to map the location. Small occurrences of PL were pulled to help prevent further spread of the plants.

Maps and results of this survey are included in Appendix A in this report.

2.2 Eurasian Water Milfoil

In 2006, a baseline survey for EWM was performed at the Rhinelander

project. Prior to the 2006 field survey, information on EWM distribution and treatment was acquired from the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and the Wisconsin Department of Natural Resources (WIDNR). In addition, a wetland analysis performed in 1997 by Northern Ecological Services, Inc. was analyzed to assist in the planning of the 2006 EWM survey.

The 2007 EWM survey was performed by visually scanning shallow areas of the project waters during the PL meander survey by two people from a boat. If a suspected plant was observed, a sample was grabbed and identified. During launch and recovery of the survey boat, boat ramps and parking areas were scanned for the presence of EWM plants. These would include Hodag Park, Moonlight Bay, Lake Creek at River Road, River Road south of Sun Prairie Road, River Road east of Sun Prairie Road, Journey's End, McNaughton Bridge Road (Fredrich's), and Apperson Lane boat ramps.

A point intercept survey for EWM was performed concurrently with the PL/EWM meander survey. A document received from the WIDNR entitled *Monitoring of Aquatic Macrophytes 2/13/06* was used as a basis for this survey. This document is included in Appendix C at the end of this survey. In 2006, point intercept sampling locations were acquired from the WIDNR for the Rhinelander Flowage (1,372 acres, 766 sample points), Boom Lake (365 acres, 200 sample points), Bass Lake (184 acres, 99 sample points), Thunder Lake (183 acres, 100 sample points), and Lake Creek (188 acres, 102 sample points).

Besides the standard safety devices located in the survey boat, the following equipment was used; handheld Garmin GPS unit with WAAS enabled (with site locations already loaded), lake maps, field data sheets, 18-foot pole-mounted rake (for deep locations), 8-foot pole-mounted rake (for shallow locations), push pole, depth finder, electric trolling motor, and polarized sunglasses.

When navigating to the sites using the GPS unit, the zoom level was set to 80 feet. Once the GPS navigation arrow covered the sample point, a rake was dropped to the bottom and dragged for about 2.5 feet. Weeds retrieved were sorted for the presence of EWM. For each site, the sample point number, latitude, longitude, depth, sediment type, EWM density, and comments were recorded. If northern water milfoil was observed at a sample point, it was noted in the comments field.

For hard to reach sites where no sample could be taken, the depth, sediment type, and EWM density fields were left blank and N/A (no access) was recorded in the comments field. In the upper reaches of the flowage, wild rice beds are prevalent. If a sample point was surrounded by or located within a rice bed, it was passed to protect the rice from

damage and a notation was included in the comments field. If a sample point was located on land, a notation was included in the comments field.

If a sample site produced no weeds, the depth was recorded and a notation was made in the comments field. After the depth of the deepest weed growth was established, for all deeper points, depth was recorded, but no samples were taken and a notation was made in the comments field. It was found that bays and lakes (such as Bass Lake and the northern section of Boom Lake) that were somewhat isolated from the main river current had clearer water and deeper weed growth. When these conditions were observed, intercept points were sampled deeper until the deepest weed growth was reestablished. When returning to more turbid waters, deepest weed growth was reestablished once again.

During the 2006 point intercept survey, a large portion of the points were not sampled due to being located on land, encompassed by wild rice, encompassed by heavy weed growth, or blocked by stumps and logs. During the 2007 survey, these same points were not sampled due to the same reasons. In fact, a few more points were eliminated due to the apparent expansion of wild rice.

Maps and results of this survey are included in Appendix B in this report.

2.3 Miscellaneous

Previous to initially launching into Rhinelander Hydroelectric Project waters, the survey boat and survey equipment were treated with a bleach solution to prevent possible spread of invasive species from other locations. After the survey was completed and before launching into other waters, the survey boat and survey equipment were again treated with a bleach solution. Weeds were removed from boat and trailer after each recovery and before leaving the boat launch.

3.0 Observations

3.1 Purple Loosestrife

As mentioned earlier, from July 25, 2007 through July 30, 2007, a meandered survey for PL was performed at the Rhinelander Hydroelectric Project. During this survey, seven occurrences of PL were found. Of these nine occurrences, two were located in the impoundment upstream from the dam (RLND PL001 and RLND PL010) and eight were located downstream from the dam in the bypass reach and tailrace areas (RLND PL002, RLND PL004, RLND PL011, RLND PL012, and RLND PL013). All PL plants were pulled except for the furthest occurrence downstream from the dam. This was labeled in 2006 as RLND PL002, was located on the right side approximately 400' downstream from the Davenport Street

bridge, and, in 2007, was comprised of approximately 15 – 20 plants of which only two plants had flowering heads. A number of these plants appeared to have insect damage. This occurrence was surrounded by old PL cane complete with seed heads and it was determined by the survey crew not to enter the area and risk the disturbance of these seed heads and the likelihood of spreading seeds. This was nearly identical to the observations in 2006.

Three other occurrences appeared to have insect damage. They were labeled as RLND PL004, RLND PL012, and RLND PL013 and all were located in the bypass reach between the dam and the Davenport Street bridge. When PL information was acquired prior to performing the 2006 survey, the WIDNR indicated that bio-control methods (beetle release) had been performed on a site on an island a short distance downstream from the Project. Beetle migration from that site may explain the damage to the plants at the Project. No Galerucella beetles were identified during the 2006 or 2007 surveys.

INSECT DAMAGE TO PURPLE LOOSESTRIFE AT RLND PL004

The only two occurrences of PL observed upstream from the dam were located on the east side of Moonlight Bay of Bass Lake (RLND PL001) and the northeast shore of Boom Lake (RLND PL010). All these plants were pulled to prevent spreading.

Information acquired from GLIFWC for the 2006 baseline survey indicated one PL sighting within the area of the survey limits. This listing was observed in 1985, was located in the wild rice beds of the upper reaches of the flowage at N45° 42' 24" W89° 30' 24" with an accuracy of 1/8 mile, and contained less than 20 plants. No further information (whether pulled, treated, or observed later) was available for this observation. No PL was found in this area during the 2006 survey or the 2007 survey.

PURPLE LOOSESTRIFE AT RLND PL010 ON BOOM LAKE

Other PL plants were observed blooming in road ditches outside the survey limits in the Rhinelander area from the first survey date of July 25, 2007 through July 30, 2007 when the survey crew left the Rhinelander area.

3.2 Eurasian Water Milfoil

No EWM was discovered at the Rhinelander project during the 2007 survey or the baseline 2006 survey. A few occurrences of native northern water milfoil were observed and are noted in Appendix B and are nearly identical to the 2006 survey.

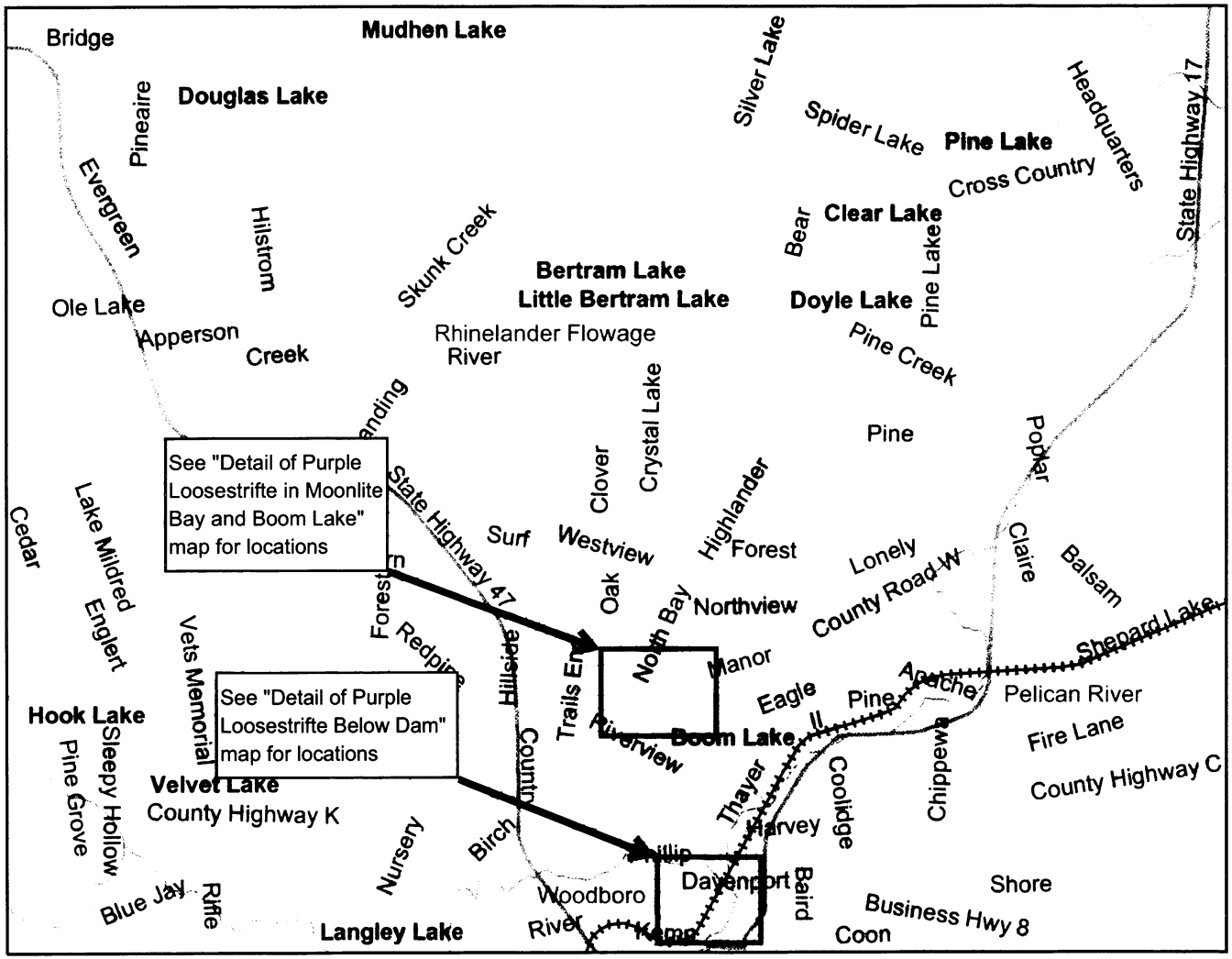
It should be noted that the water conditions in most of the project waters was rather turbid. Water clarity is a determining factor on the maximum

depth of weed growth and they varied throughout the Rhinelander Project waters. Subsequent EWM surveys should be conducted to be adaptive to these situations so that unnecessary sampling is reduced and areas were deeper weed growth is possible is not missed. In the 2007 survey, maximum weed depth varied from 5' – 6' in the main river channel areas of the upper reaches of the flowage to 12' – 14' in the deep clearer section of Bass Lake. The 18' rake used during the survey was sufficient to sample all points where weed growth occurred and a rope rake was not needed. This was consistent with the observations of the 2006 survey.

APPENDIX A

Purple Loosestrife Survey Results

2007 Rhinelander Purple Loosestrife Locations



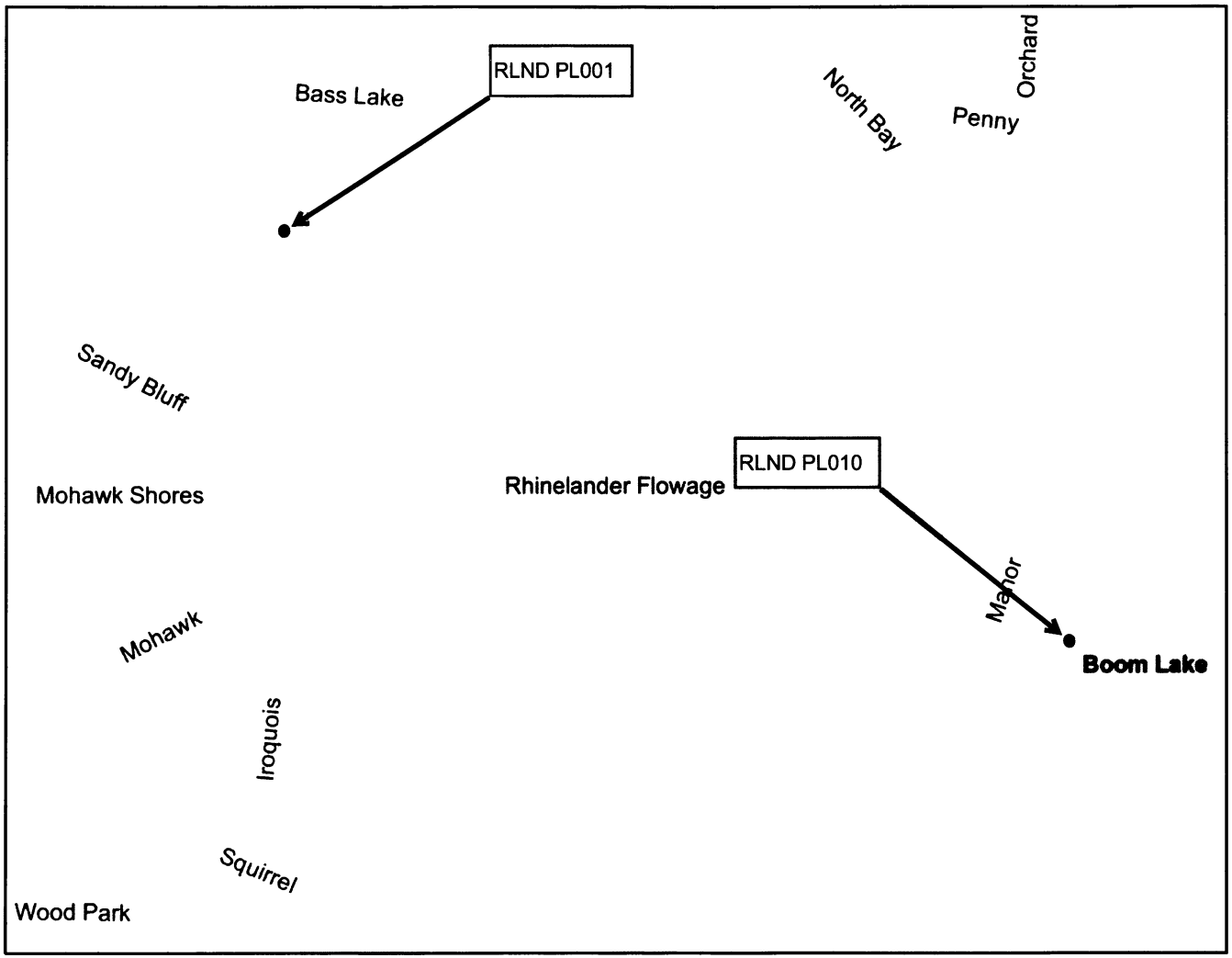
Legend

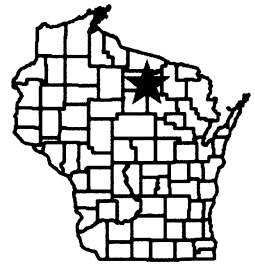
- County Boundaries
- Railroads
- Major Highways
  - Interstate
  - US Highway
  - State Highway
- Local Roads
- 24K Watersheds
- Civil Towns
  - Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Cities and Villages
  - Village
  - City

Scale: 1:81,999

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Detail of Purple Loosestrife in Moonlite Bay and Boom Lake





Legend

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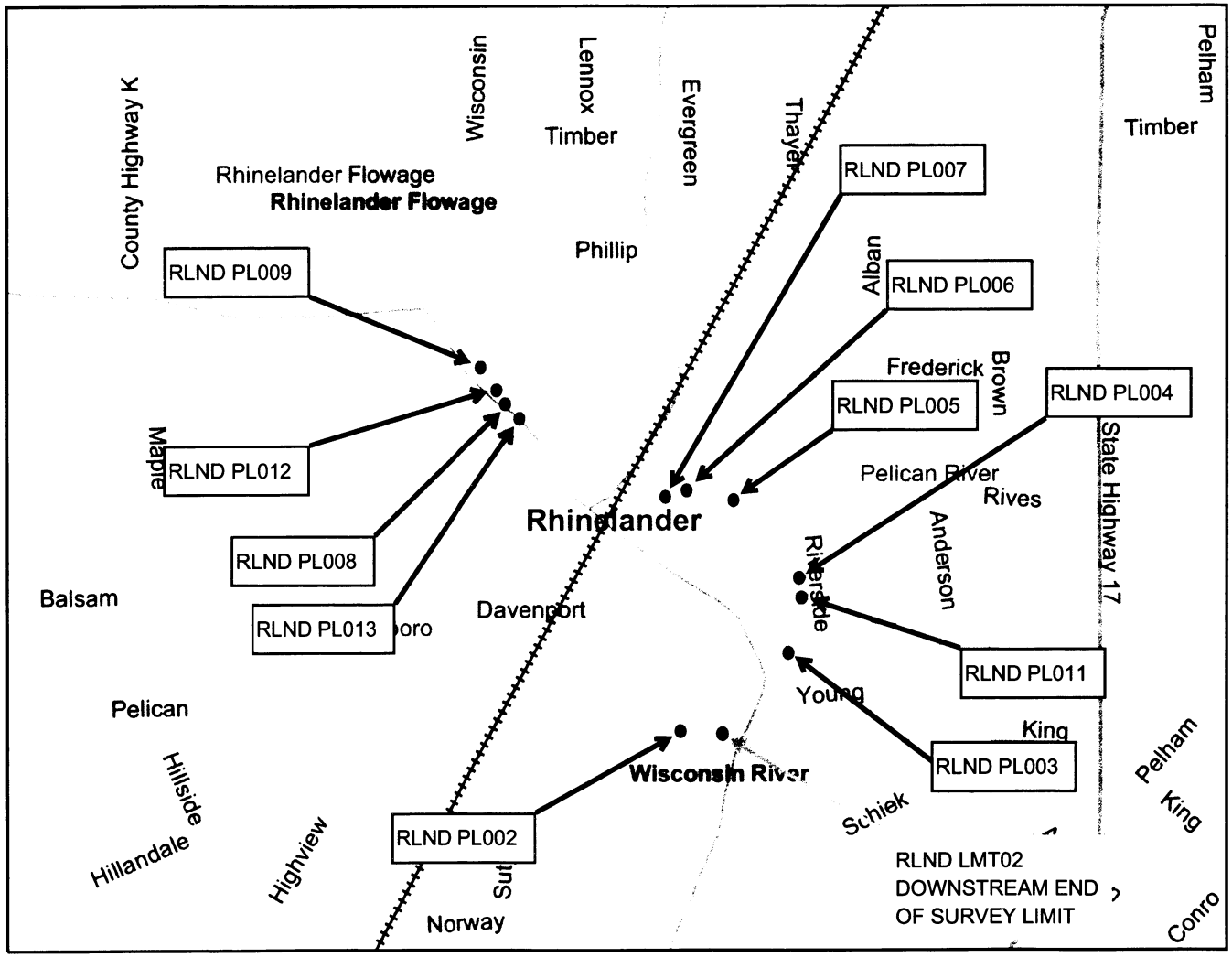
- Purple Loosestrife Observed in 2007
- Purple Loosestrife Observed in Previous Years and not in 2007

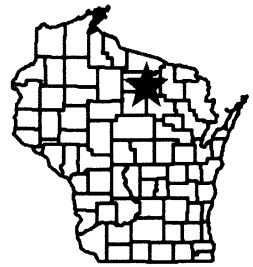
0 700 1400 2100 ft.

Scale: 1:7,022

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Detail of Purple Loosestrife Below Dam





Legend

- County Boundaries
- Railroads
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- US Highway
- State Highway
- Local Roads
- 24K Watersheds
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Cities and Villages
- Village
- City

- Purple Loosestrife Observed in 2007
- Purple Loosestrife Observed in Previous Years and not in 2007

Scale: 1:7,022

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Purple Loosestrife Survey

07-09-28 RAL RLND 2007 Loosestrife Survey form.xls

Project: Rhinelander #2523 **Datum:** WGS 84

Date: 7/25 - 7/30/2007

Crew: RAL & CTM

Sighting #	GPS point	Latitude	Longitude	Plant Height	Stand Area	Comments
1	RLND PL010	N45° 39' 29.7"	W89° 25' 21.2"	4' - 5'	2 plants	Located on NE shore of Boom Lake. First observed in 2007. All plants pulled in 2007. Photos taken in 2007
2	RLND PL001	N45° 39' 45.2"	W89° 26' 00.7"	1' - 3'	~15' x 8' 12 plants	Located on the east shore of Moonlite Bay in Bass Lake. First observed in 2006. Subsequently observed in 2007. New construction and ground disturbance at site in 2006. No old cane from previous year growth observed. All plants pulled in 2006 & 2007. Photos taken in 2006. No photos in 2007.
3	RLND PL011	N45° 38' 17.3"	W89° 24' 55.7"	4'	1 plant	Located on left side of bypass reach ~100 feet upstream of the Davenport Street Bridge. First observed in 2007. Beetle damage in 2007. All plants pulled in 2007. Photos taken in 2007.
4	RLND PL004	N45° 38' 18.1"	W89° 24' 55.9"	4'	1 plant	Located on left side of bypass reach ~175 feet upstream of the Davenport Street Bridge. First observed in 2006. Subsequently observed in 2007. Beetle damage in 2006 & 2007. All plants pulled in 2006 & 2007. Photos taken in 2006 & 2007.
5	RLND PL002	N45° 38' 12.5"	W89° 25' 01.1"	2' - 4'	~40' x 15' 15 - 20 plants	Located on right side of river ~400 feet downstream of the Davenport Street Bridge. First observed in 2006. Subsequently observed in 2007. Only two plants with flower heads. Beetle damage in 2006 & 2007. Many old cane with seed heads from previous years' growth observed. No treatment in 2006 & 2007. Photos taken in 2006 & 2007.
6	RLND PL012	N45° 38' 24.0"	W89° 25' 10.0"	4'	1 plant	Located on right side of bypass reach ~575 feet downstream of the Dam. First observed in 2007. Beetle damage in 2007. All plants pulled in 2007. Photos taken in 2007.
7	RLND PL013	N45° 38' 23.7"	W89° 25' 09.4"	2' - 3'	2 plants	Located on right side of bypass reach ~625 feet downstream of the Dam. First observed in 2007. Beetle damage in 2007. All plants pulled in 2007. Photos taken in 2007.

Purple Loosestrife Survey

07-09-28 RAL RLND 2007 Loosestrife Survey form.xls

Project: Rhinelander #2523 **Datum:** WGS 84

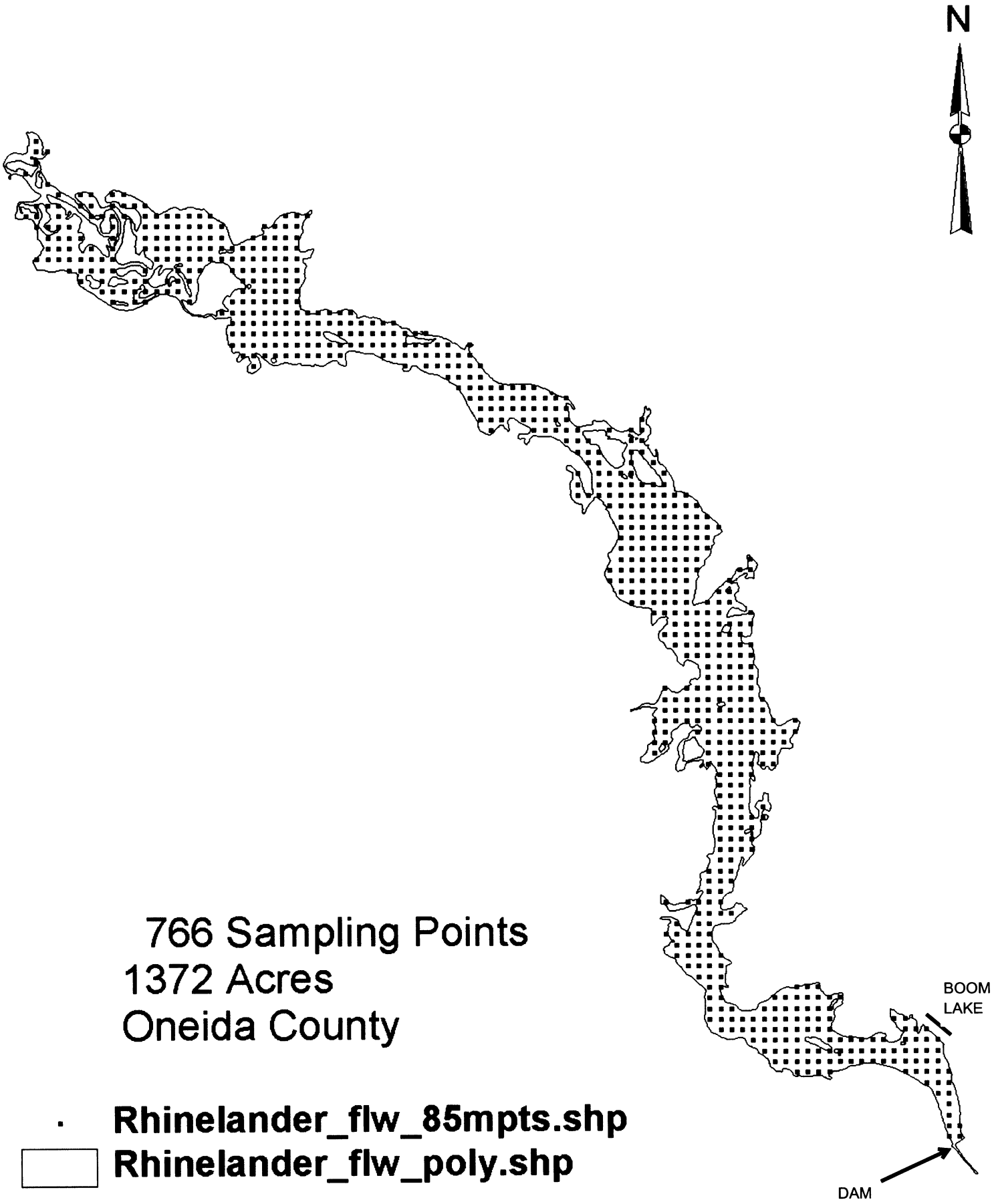
Date: 7/25 - 7/30/2007

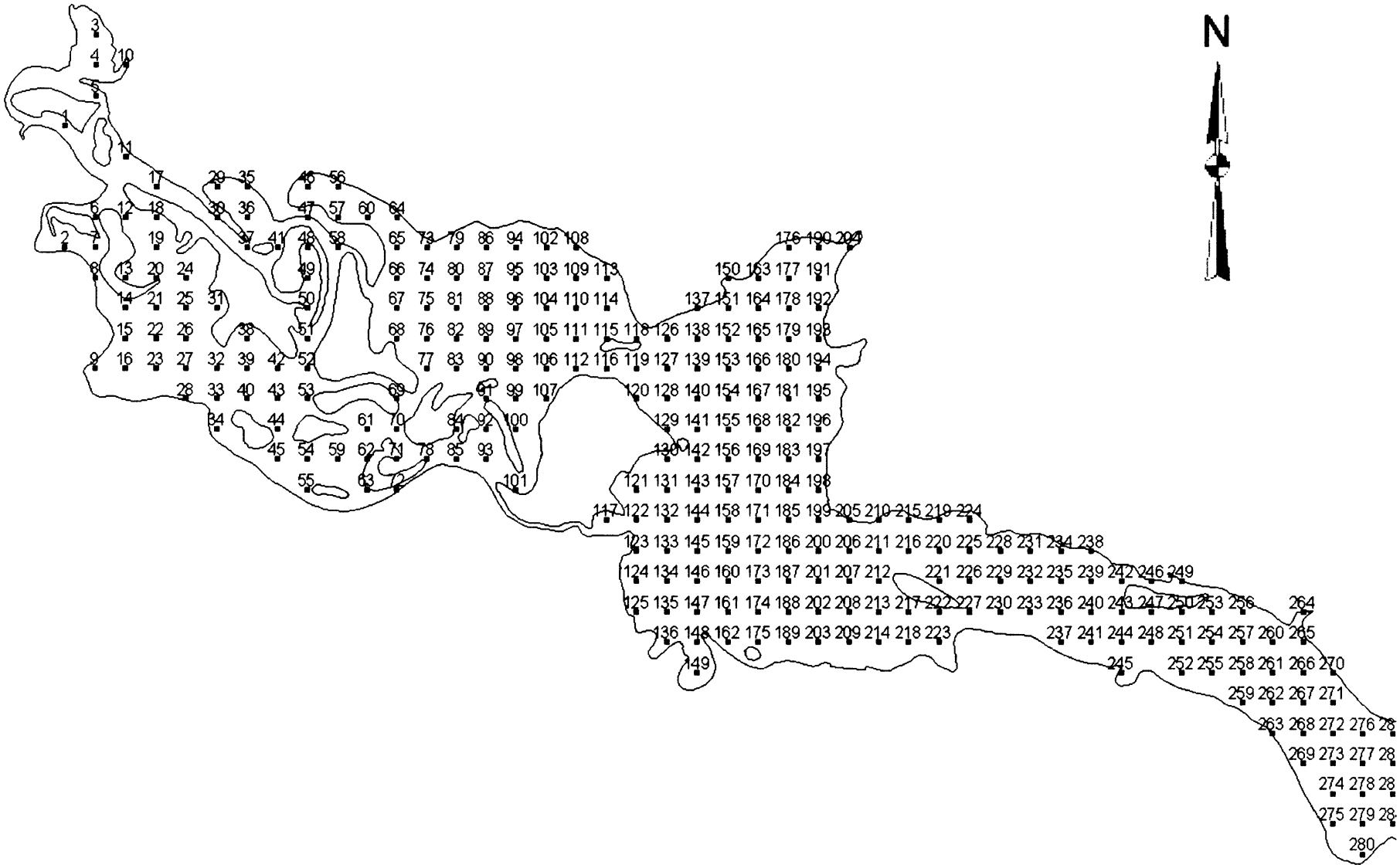
Crew: RAL & CTM

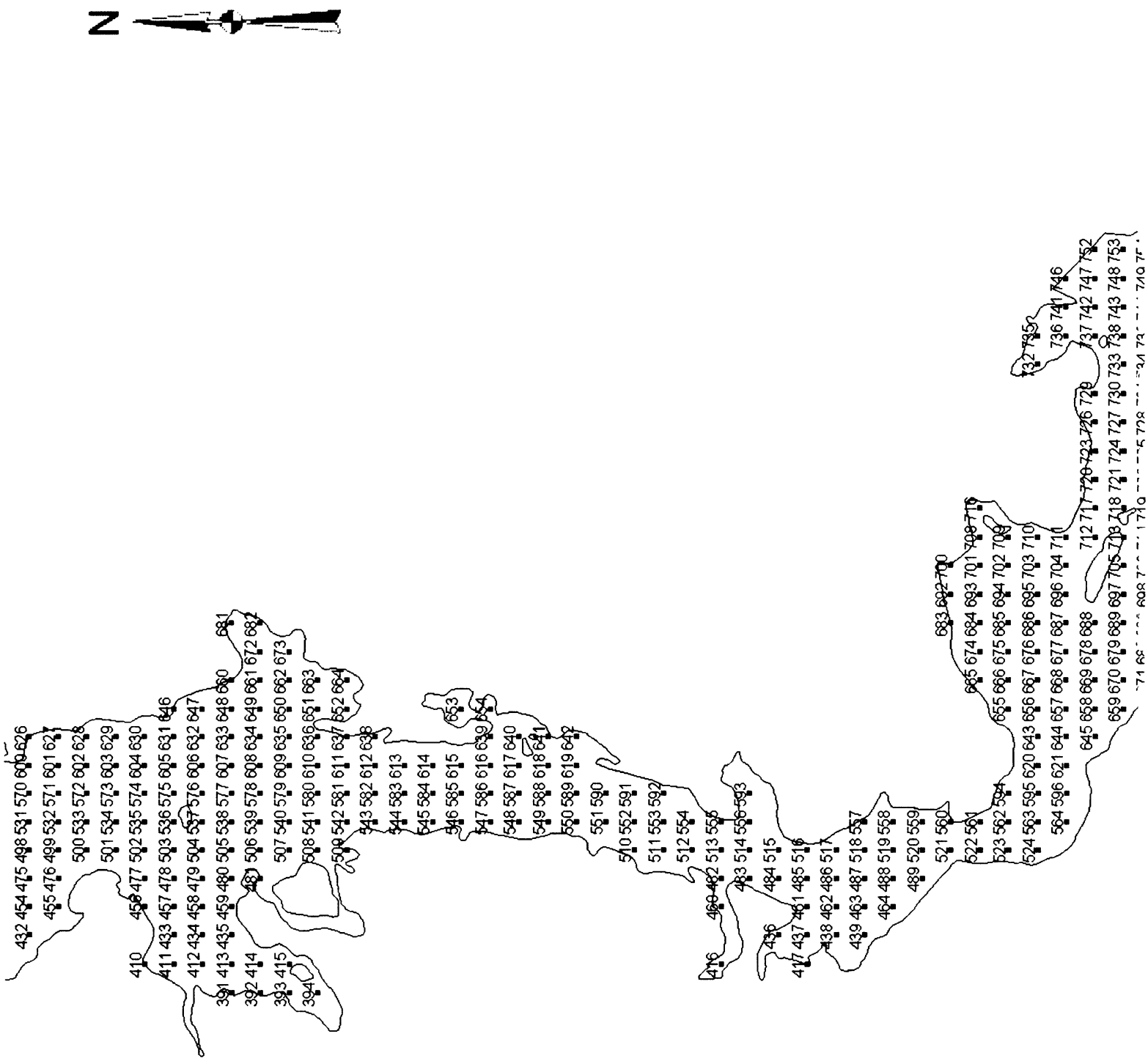
Sighting #	GPS point	Latitude	Longitude	Plant Height	Stand Area	Comments
Sightnings listed below were observed in previous years, but not in current year survey.						
N/A	RLND PL003	N45° 38' 14.7"	W89° 24' 57.2"	4'	1 plant	Located on left side of river ~175 feet downstream of the Davenport Street Bridge. First observed in 2006. All plants pulled in 2006. No photos in 2006.
N/A	RLND PL005	N45° 38' 20.1"	W89° 24' 58.2"	4'	1 plant	Located on left side of bypass reach ~400 feet upstream of the Davenport Street Bridge. First observed in 2006. All plants pulled in 2006. No photos taken in 2006.
N/A	RLND PL006	N45° 38' 20.8"	W89° 25' 00.1"	4'	1 plant	Located on left side of bypass reach ~550 feet upstream of the Davenport Street Bridge. First observed in 2006. All plants pulled in 2006. No photos taken in 2006.
N/A	RLND PL007	N45° 38' 21.0"	W89° 25' 01.5"	3' - 4'	~4' x 2' 2 plants	Located on left side of bypass reach ~650 feet upstream of the Davenport Street Bridge. First observed in 2006. All plants pulled in 2006. No photos taken in 2006.
N/A	RLND PL008	N45° 38' 23.8"	W89° 25' 09.8"	5'	1 plant	Located on right side of bypass reach ~600 feet downstream of the Dam. First observed in 2006. All plants pulled in 2006. No photos taken in 2006.
N/A	RLND PL009	N45° 38' 20.8"	W89° 25' 00.1"	3'	1 plant	Located on right side of bypass reach ~525 feet downstream of the Dam. First observed in 2006. All plants pulled in 2006. No photos taken in 2006.

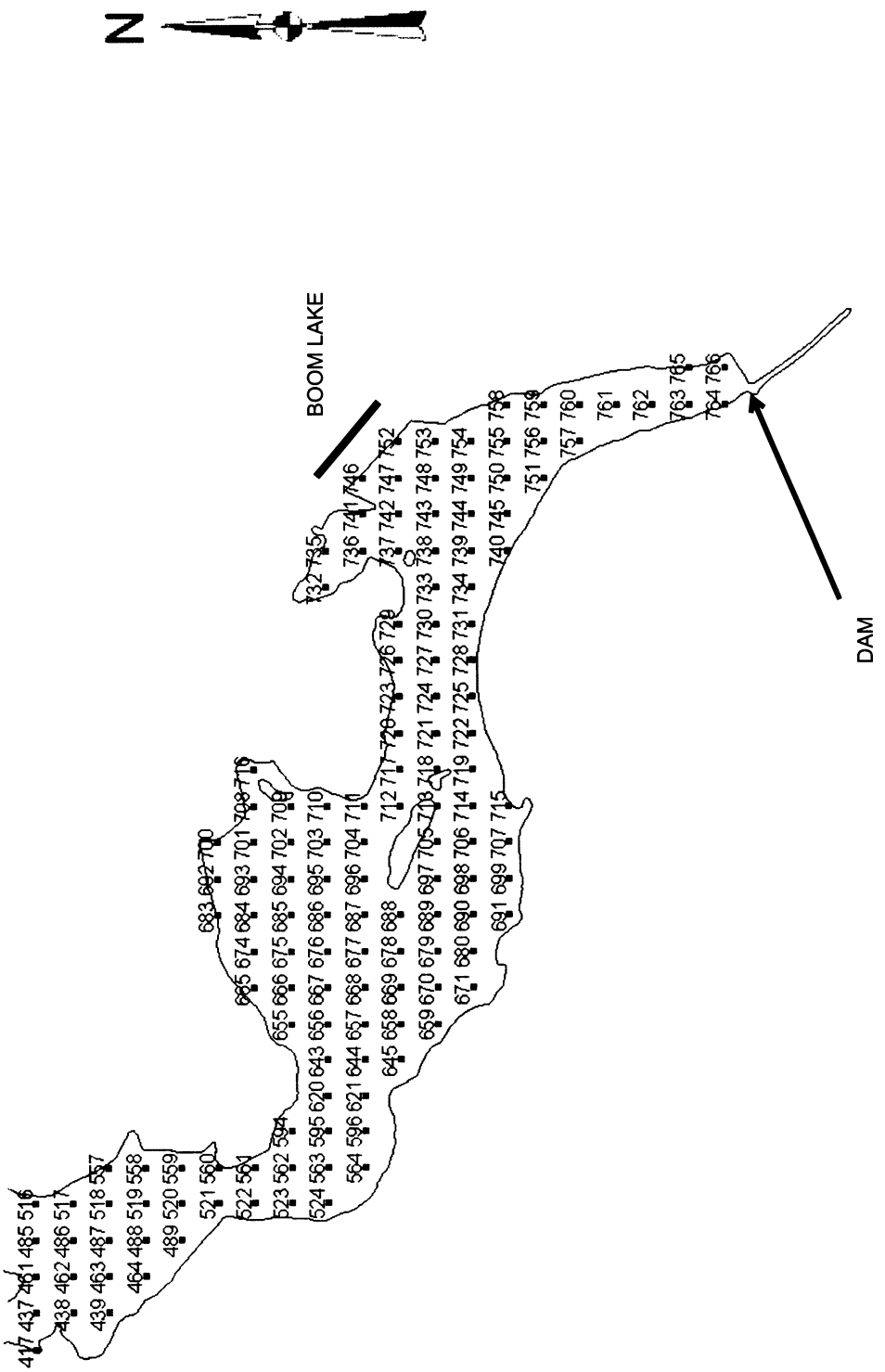
APPENDIX B

Eurasian Water Milfoil Survey Results









Milfoil Intercept Point Report
Project/Lake: Rhinelander/Rhinelander Flowage (766 Sample points)
Date: 7/25/07, 7/26/07, 7/27/07, & 7/28/07
WBIC: 1580100
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
1	N45.71096751	W89.51358717	6	S	Pole Rake	0	-
2	N45.70790735	W89.51361371	-	-	-	-	N/A - Wild Rice
3	N45.71325798	W89.51247519	-	-	-	-	N/A - Wild Rice
4	N45.71249294	W89.51248184	4	S	Pole Rake	0	-
5	N45.7117279	W89.51248849	-	-	-	-	N/A - Wild Rice
6	N45.70866773	W89.5125151	6	S	Pole Rake	0	-
7	N45.70790269	W89.51252175	-	-	-	-	N/A - Wild Rice
8	N45.70713765	W89.5125284	6	S	Pole Rake	0	No Weeds
9	N45.70484253	W89.51254835	5	S	Pole Rake	0	-
10	N45.71248827	W89.51138979	-	-	-	-	N/A - Wild Rice
11	N45.71019315	W89.51140979	-	-	-	-	N/A - Wild Rice
12	N45.70866307	W89.51142312	-	-	-	-	N/A - Wild Rice
13	N45.70713299	W89.51143645	-	-	-	-	N/A - Wild Rice
14	N45.70636795	W89.51144312	-	-	-	-	N/A - Wild Rice
15	N45.70560291	W89.51144978	-	-	-	-	N/A - Wild Rice
16	N45.70483787	W89.51145645	-	-	-	-	N/A - Wild Rice
17	N45.70942344	W89.51032447	3	S	Pole Rake	0	-
18	N45.70865839	W89.51033115	-	-	-	-	N/A - Wild Rice
19	N45.70789335	W89.51033783	-	-	-	-	N/A - Wild Rice
20	N45.70712831	W89.51034451	-	-	-	-	N/A - Wild Rice
21	N45.70636327	W89.51035119	-	-	-	-	N/A - Wild Rice
22	N45.70559823	W89.51035787	-	-	-	-	N/A - Wild Rice
23	N45.70483319	W89.51036454	-	-	-	-	N/A - Wild Rice
24	N45.70712363	W89.50925256	-	-	-	-	N/A - Wild Rice
25	N45.70635859	W89.50925926	-	-	-	-	N/A - Wild Rice
26	N45.70559355	W89.50926595	-	-	-	-	N/A - Wild Rice
27	N45.70482851	W89.50927264	-	-	-	-	N/A - Wild Rice
28	N45.70406347	W89.50927934	-	-	-	-	N/A - Wild Rice
29	N45.70941405	W89.50814049	-	-	-	-	N/A - Wild Rice
30	N45.70864901	W89.5081472	4	S	Pole Rake	0	-
31	N45.70635389	W89.50816732	-	-	-	-	N/A - Wild Rice
32	N45.70482381	W89.50818074	-	-	-	-	N/A - Wild Rice
33	N45.70405877	W89.50818745	-	-	-	-	N/A - Wild Rice
34	N45.70329373	W89.50819416	-	-	-	-	N/A - Wild Rice
35	N45.70940935	W89.5070485	-	-	-	-	N/A - Wild Rice
36	N45.70864431	W89.50705522	-	-	-	-	N/A - Wild Rice
37	N45.70787927	W89.50706195	2	S	Pole Rake	0	-
38	N45.70558415	W89.50708212	-	-	-	-	N/A - Wild Rice
39	N45.70481911	W89.50708884	-	-	-	-	N/A - Wild Rice
40	N45.70405406	W89.50709557	7	S	Pole Rake	0	-
41	N45.70787455	W89.50596999	-	-	-	-	N/A - Wild Rice
42	N45.70481439	W89.50599694	-	-	-	-	N/A - Wild Rice
43	N45.70404935	W89.50600368	-	-	Pole Rake	-	N/A Wild Rice
44	N45.70328431	W89.50601042	-	-	-	-	N/A - Wild Rice
45	N45.70251927	W89.50601716	-	-	-	-	N/A - Wild Rice
46	N45.7093999	W89.50486452	-	-	-	-	N/A - Wild Rice
47	N45.70863486	W89.50487127	-	-	-	-	N/A - Wild Rice
48	N45.70786982	W89.50487803	-	-	-	-	N/A - Wild Rice
49	N45.70710478	W89.50488478	-	-	-	-	N/A - Wild Rice
50	N45.70633974	W89.50489153	-	-	-	-	N/A - Wild Rice

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
51	N45.7055747	W89.50489829	-	-	-	-	N/A - Wild Rice
52	N45.70480966	W89.50490504	-	-	-	-	N/A - Wild Rice
53	N45.70404462	W89.50491179	-	-	-	-	N/A - Wild Rice
54	N45.70251454	W89.5049253	-	-	-	-	N/A - Wild Rice
55	N45.7017495	W89.50493205	-	-	-	-	N/A - Wild Rice
56	N45.70939517	W89.50377253	-	-	-	-	N/A - Wild Rice
57	N45.70863013	W89.5037793	-	-	-	-	N/A - Wild Rice
58	N45.70786509	W89.50378607	-	-	-	-	N/A - Wild Rice
59	N45.7025098	W89.50383345	-	-	-	-	N/A - Wild Rice
60	N45.70862538	W89.50268732	-	-	-	-	N/A - Wild Rice
61	N45.7032701	W89.50273481	-	-	-	-	N/A - Wild Rice
62	N45.70250506	W89.50274159	-	-	-	-	N/A - Wild Rice
63	N45.70174002	W89.50274837	4	M	Pole Rake	0	-
64	N45.70862062	W89.50159535	-	-	-	-	N/A - Wild Rice
65	N45.70785558	W89.50160215	-	-	-	-	N/A - Wild Rice
66	N45.70709054	W89.50160895	-	-	-	-	N/A - Wild Rice
67	N45.7063255	W89.50161575	-	-	-	-	N/A - Wild Rice
68	N45.70556046	W89.50162254	-	-	-	-	N/A - Wild Rice
69	N45.70403038	W89.50163614	-	-	-	-	N/A - Wild Rice
70	N45.70326534	W89.50164294	6	S	Pole Rake	0	-
71	N45.7025003	W89.50164974	3	M	Pole Rake	0	-
72	N45.70173526	W89.50165653	-	-	-	-	N/A - Wild Rice
73	N45.70785081	W89.50051019	-	-	-	-	N/A - Wild Rice
74	N45.70708577	W89.500517	-	-	-	-	N/A - Wild Rice
75	N45.70632073	W89.50052382	-	-	-	-	N/A - Wild Rice
76	N45.70555569	W89.50053063	-	-	-	-	N/A - Wild Rice
77	N45.70479065	W89.50053744	-	-	-	-	N/A - Wild Rice
78	N45.70249553	W89.50055788	4	M	Pole Rake	0	-
79	N45.70784603	W89.49941823	-	-	-	-	N/A - Wild Rice
80	N45.70708099	W89.49942506	-	-	-	-	N/A - Wild Rice
81	N45.70631595	W89.49943189	4	M	Pole Rake	0	-
82	N45.70555091	W89.49943872	-	-	-	-	N/A - Wild Rice
83	N45.70478587	W89.49944554	-	-	-	-	N/A - Wild Rice
84	N45.70325579	W89.4994592	5	S	Pole Rake	0	No Weeds
85	N45.70249075	W89.49946603	-	-	-	-	N/A - Wild Rice
86	N45.70784124	W89.49832627	-	-	-	-	N/A - Wild Rice
87	N45.7070762	W89.49833312	-	-	-	-	N/A - Wild Rice
88	N45.70631116	W89.49833996	-	-	-	-	N/A - Wild Rice
89	N45.70554612	W89.4983468	-	-	-	-	N/A - Wild Rice
90	N45.70478108	W89.49835365	-	-	-	-	N/A - Wild Rice
91	N45.70401604	W89.49836049	-	-	-	-	N/A - Wild Rice
92	N45.703251	W89.49836733	-	-	-	-	N/A - Wild Rice
93	N45.70248596	W89.49837417	-	-	-	-	N/A - Wild Rice
94	N45.70783644	W89.49723432	-	-	-	-	N/A - Wild Rice
95	N45.7070714	W89.49724117	-	-	-	-	N/A - Wild Rice
96	N45.70630636	W89.49724803	-	-	-	-	N/A - Wild Rice
97	N45.70554132	W89.49725489	-	-	-	-	N/A - Wild Rice
98	N45.70477628	W89.49726175	-	-	-	-	N/A - Wild Rice
99	N45.70401125	W89.49726861	6	M	Pole Rake	0	No Weeds
100	N45.70324621	W89.49727546	-	-	-	-	N/A - Wild Rice

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
101	N45.70171613	W89.49728918	6	S	Pole Rake	0	-
102	N45.70783163	W89.49614236	-	-	-	-	N/A - Blocked By Wild Rice
103	N45.70706659	W89.49614923	-	-	-	-	N/A - Blocked By Wild Rice
104	N45.70630155	W89.4961561	-	-	-	-	N/A - Blocked By Wild Rice
105	N45.70553651	W89.49616298	-	-	-	-	N/A - Wild Rice
106	N45.70477147	W89.49616985	-	-	-	-	N/A - Wild Rice
107	N45.70400644	W89.49617672	-	-	-	-	N/A - Wild Rice
108	N45.70782681	W89.4950504	-	-	-	-	N/A - Blocked By Wild Rice
109	N45.70706177	W89.49505729	-	-	-	-	N/A - Blocked By Wild Rice
110	N45.70629673	W89.49506418	-	-	-	-	N/A - Blocked By Wild Rice
111	N45.70553169	W89.49507107	8	S,G	Pole Rake	0	-
112	N45.70476665	W89.49507795	3	M	Pole Rake	0	-
113	N45.70705694	W89.49396535	-	-	-	-	N/A - Wild Rice
114	N45.7062919	W89.49397225	-	-	-	-	N/A - Wild Rice
115	N45.70552686	W89.49397915	5	S	Pole Rake	0	-
116	N45.70476182	W89.49398606	4	M	Pole Rake	0	-
117	N45.70093663	W89.49402056	-	-	-	-	N/A - Wild Rice
118	N45.70552202	W89.49288724	5	S	Pole Rake	0	-
119	N45.70475698	W89.49289416	5	S	Pole Rake	0	-
120	N45.70399194	W89.49290108	-	-	-	-	N/A - Wild Rice
121	N45.70169683	W89.49292182	-	-	-	-	N/A - Wild Rice
122	N45.70093179	W89.49292874	-	-	-	-	N/A - Wild Rice
123	N45.70016675	W89.49293566	-	-	-	-	N/A
124	N45.69940171	W89.49294257	-	-	-	-	N/A
125	N45.69863667	W89.49294949	-	-	-	-	N/A
126	N45.70551717	W89.49179533	-	-	-	-	N/A - Wild Rice
127	N45.70475213	W89.49180226	8	S	Pole Rake	0	-
128	N45.70398709	W89.49180919	-	-	-	-	N/A - Wild Rice
129	N45.70322205	W89.49181613	6	S	Pole Rake	0	-
130	N45.70245701	W89.49182306	-	-	-	-	N/A - Wild Rice
131	N45.70169197	W89.49182999	-	-	-	-	N/A - Wild Rice
132	N45.70092693	W89.49183692	-	-	-	-	N/A - Wild Rice
133	N45.7001619	W89.49184385	-	-	-	-	N/A
134	N45.69939686	W89.49185078	-	-	-	-	N/A
135	N45.69863182	W89.49185771	-	-	-	-	N/A
136	N45.69786678	W89.49186464	-	-	-	-	N/A
137	N45.70627735	W89.49069647	-	-	-	-	N/A - Wild Rice
138	N45.70551231	W89.49070342	-	-	-	-	N/A - Wild Rice
139	N45.70474727	W89.49071036	-	-	-	-	N/A - Wild Rice
140	N45.70398223	W89.49071731	-	-	-	-	N/A - Wild Rice
141	N45.70321719	W89.49072426	5	M	Pole Rake	0	-
142	N45.70245215	W89.4907312	-	-	-	-	N/A - Wild Rice
143	N45.70168711	W89.49073815	-	-	-	-	N/A - Wild Rice
144	N45.70092207	W89.4907451	-	-	-	-	N/A - Wild Rice
145	N45.70015703	W89.49075204	-	-	Pole Rake	-	N/A Wild Rice
146	N45.69939199	W89.49075899	-	-	Pole Rake	-	N/A Wild Rice
147	N45.69862695	W89.49076593	3	M	Pole Rake	0	-
148	N45.69786192	W89.49077288	-	-	-	-	N/A
149	N45.69709688	W89.49077982	-	-	-	-	N/A
150	N45.70703751	W89.48959758	-	-	-	-	N/A - Wild Rice

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
151	N45.70627247	W89.48960454	-	-	-	-	N/A - Wild Rice
152	N45.70550743	W89.48961151	-	-	-	-	N/A - Wild Rice
153	N45.7047424	W89.48961847	-	-	-	-	N/A - Wild Rice
154	N45.70397736	W89.48962543	-	-	-	-	N/A - Wild Rice
155	N45.70321232	W89.48963239	-	-	-	-	N/A - Wild Rice
156	N45.70244728	W89.48963935	-	-	-	-	N/A - Wild Rice
157	N45.70168224	W89.48964631	-	-	-	-	N/A - Wild Rice
158	N45.7009172	W89.48965327	-	-	-	-	N/A - Wild Rice
159	N45.70015216	W89.48966023	-	-	Pole Rake	-	N/A Wild Rice
160	N45.69938712	W89.48966719	-	-	-	-	N/A - Wild Rice
161	N45.69862208	W89.48967415	4	M	Pole Rake	0	-
162	N45.69785704	W89.48968111	-	-	-	-	N/A - Wild Rice
163	N45.70703263	W89.48850564	-	-	-	-	N/A - Wild Rice
164	N45.70626759	W89.48851262	-	-	-	-	N/A - Wild Rice
165	N45.70550255	W89.4885196	-	-	-	-	N/A - Wild Rice
166	N45.70473751	W89.48852657	-	-	-	-	N/A - Wild Rice
167	N45.70397247	W89.48853355	-	-	-	-	N/A - Wild Rice
168	N45.70320744	W89.48854053	-	-	-	-	N/A - Wild Rice
169	N45.7024424	W89.4885475	-	-	-	-	N/A - Wild Rice
170	N45.70167736	W89.48855448	-	-	-	-	N/A - Wild Rice
171	N45.70091232	W89.48856145	-	-	-	-	N/A - Wild Rice
172	N45.70014728	W89.48856843	8	-	-	-	No Reading
173	N45.69938224	W89.4885754	-	-	-	-	N/A - Wild Rice
174	N45.6986172	W89.48858238	4	M	Pole Rake	0	-
175	N45.69785216	W89.48858935	-	-	-	-	N/A - Wild Rice
176	N45.70779277	W89.48740671	-	-	-	-	N/A - Wild Rice
177	N45.70702773	W89.4874137	-	-	-	-	N/A - Wild Rice
178	N45.7062627	W89.48742069	-	-	-	-	N/A - Wild Rice
179	N45.70549766	W89.48742769	-	-	-	-	N/A - Wild Rice
180	N45.70473262	W89.48743468	-	-	-	-	N/A - Wild Rice
181	N45.70396758	W89.48744167	-	-	-	-	N/A - Wild Rice
182	N45.70320254	W89.48744866	-	-	-	-	N/A - Wild Rice
183	N45.7024375	W89.48745565	-	-	-	-	N/A - Wild Rice
184	N45.70167246	W89.48746264	6	M	Pole Rake	0	-
185	N45.70090743	W89.48746963	4	M	Pole Rake	0	-
186	N45.70014239	W89.48747662	5	M	Pole Rake	0	-
187	N45.69937735	W89.48748361	9	-	-	-	No Reading
188	N45.69861231	W89.4874906	5	M	Pole Rake	0	-
189	N45.69784727	W89.48749759	-	-	-	-	N/A - Wild Rice
190	N45.70778787	W89.48631475	-	-	-	-	N/A - Wild Rice
191	N45.70702283	W89.48632176	-	-	-	-	N/A - Wild Rice
192	N45.70625779	W89.48632877	-	-	-	-	N/A - Wild Rice
193	N45.70549275	W89.48633577	4	M	Pole Rake	0	-
194	N45.70472771	W89.48634278	5	M	Pole Rake	0	NWM
195	N45.70396268	W89.48634979	11	M	Pole Rake	0	No Weeds
196	N45.70319764	W89.48635679	-	-	-	-	N/A - Wild Rice
197	N45.7024326	W89.4863638	4	M	Pole Rake	0	-
198	N45.70166756	W89.48637081	3	S	Pole Rake	0	-
199	N45.70090252	W89.48637781	4	M	Pole Rake	0	-
200	N45.70013748	W89.48638482	4	M	Pole Rake	0	NWM

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201	N45.69937244	W89.48639182	-	-	-	-	N/A - Wild Rice
202	N45.69860741	W89.48639883	7	-	-	-	No Reading
203	N45.69784237	W89.48640583	-	-	-	-	N/A - Wild Rice
204	N45.70778295	W89.4852228	-	-	-	-	N/A - Wild Rice
205	N45.70089761	W89.48528599	-	-	-	-	N/A - Wild Rice
206	N45.70013257	W89.48529301	4	M	Pole Rake	0	-
207	N45.69936753	W89.48530003	5	M	Pole Rake	0	-
208	N45.69860249	W89.48530705	4	M	Pole Rake	0	-
209	N45.69783745	W89.48531407	5	M	Pole Rake	0	-
210	N45.70089268	W89.48419417	-	-	-	-	N/A - Wild Rice
211	N45.70012765	W89.4842012	11	G	Pole Rake	0	No Weeds
212	N45.69936261	W89.48420824	10	-	-	-	No Reading
213	N45.69859757	W89.48421527	-	-	-	-	N/A - Wild Rice
214	N45.69783253	W89.48422231	-	-	-	-	N/A - Wild Rice
215	N45.70088775	W89.48310235	7	-	-	-	No Reading
216	N45.70012271	W89.4831094	-	-	-	-	N/A - Wild Rice
217	N45.69859263	W89.4831235	-	-	-	-	N/A - Wild Rice
218	N45.6978276	W89.48313055	-	-	-	-	N/A - Wild Rice
219	N45.7008828	W89.48201053	-	-	-	-	N/A - Wild Rice
220	N45.70011777	W89.48201759	-	-	-	-	N/A - Wild Rice
221	N45.69935273	W89.48202466	-	-	-	-	N/A - Wild Rice
222	N45.69858769	W89.48203172	2	R	Pole Rake	0	-
223	N45.69782265	W89.48203879	4	M	Pole Rake	0	-
224	N45.70087785	W89.48091871	-	-	-	-	N/A - Wild Rice
225	N45.70011281	W89.48092579	7	-	-	-	No Reading
226	N45.69934777	W89.48093287	-	-	-	-	N/A - Wild Rice
227	N45.69858273	W89.48093995	4	S	Pole Rake	0	-
228	N45.70010785	W89.47983399	-	-	-	-	N/A - Wild Rice
229	N45.69934281	W89.47984108	4	M	Pole Rake	0	-
230	N45.69857777	W89.47984817	5	M	Pole Rake	0	-
231	N45.70010287	W89.47874218	-	-	-	-	N/A - Wild Rice
232	N45.69933783	W89.47874929	-	-	-	-	N/A - Wild Rice
233	N45.69857279	W89.4787564	7	-	-	-	No Reading
234	N45.70009788	W89.47765038	5	M	Pole Rake	0	-
235	N45.69933284	W89.4776575	-	-	-	-	N/A - Wild Rice
236	N45.69856781	W89.47766462	-	-	-	-	N/A - Wild Rice
237	N45.69780277	W89.47767175	8	-	-	-	No Reading
238	N45.70009289	W89.47655857	-	-	-	-	N/A - Wild Rice/Land
239	N45.69932785	W89.47656571	-	-	-	-	N/A - Wild Rice
240	N45.69856281	W89.47657285	-	-	-	-	N/A - Wild Rice
241	N45.69779777	W89.47657999	5	M	Pole Rake	0	-
242	N45.69932284	W89.47547392	-	-	-	-	N/A - Wild Rice
243	N45.6985578	W89.47548108	-	-	-	-	N/A - Wild Rice
244	N45.69779277	W89.47548823	6	M	Pole Rake	0	-
245	N45.69702773	W89.47549538	-	-	-	-	N/A - Wild Rice
246	N45.69931782	W89.47438214	-	-	-	-	N/A - Wild Rice
247	N45.69855279	W89.4743893	-	-	-	-	N/A - Wild Rice
248	N45.69778775	W89.47439647	6	M	Pole Rake	0	-
249	N45.69931279	W89.47329035	-	-	-	-	N/A - Land
250	N45.69854776	W89.47329753	-	-	-	-	N/A - Wild Rice

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251	N45.69778272	W89.47330471	6	M	Pole Rake	0	-
252	N45.69701768	W89.4733119	-	-	Pole Rake	-	N/A Wild Rice
253	N45.69854272	W89.47220576	-	-	-	-	N/A - Wild Rice
254	N45.69777768	W89.47221296	7	-	-	-	No Reading
255	N45.69701264	W89.47222015	-	-	-	-	N/A - Wild Rice
256	N45.69853767	W89.47111399	-	-	-	-	N/A - Wild Rice
257	N45.69777263	W89.4711212	8	-	-	-	No Reading
258	N45.6970076	W89.47112841	3	M	Pole Rake	0	-
259	N45.69624256	W89.47113562	4	M	Pole Rake	0	-
260	N45.69776757	W89.47002944	8	-	-	-	No Reading
261	N45.69700254	W89.47003667	-	-	-	-	N/A - Wild Rice
262	N45.6962375	W89.4700439	-	-	-	-	N/A - Wild Rice
263	N45.69547246	W89.47005112	-	-	-	-	N/A - Land
264	N45.69852754	W89.46893044	-	-	-	-	N/A - H708Land
265	N45.6977625	W89.46893769	-	-	-	-	N/A - Wild Rice
266	N45.69699747	W89.46894493	10	-	-	-	No Reading
267	N45.69623243	W89.46895217	8	-	-	-	No Reading
268	N45.69546739	W89.46895941	8	-	-	-	No Reading
269	N45.69470235	W89.46896665	8	-	-	-	No Reading
270	N45.69699239	W89.46785319	-	-	-	-	N/A - Blocked By Wild Rice
271	N45.69622735	W89.46786044	-	-	-	-	N/A - Wild Rice
272	N45.69546231	W89.4678677	-	-	-	-	N/A - Wild Rice
273	N45.69469728	W89.46787496	-	-	-	-	N/A - Wild Rice
274	N45.69393224	W89.46788221	-	-	-	-	N/A - Wild Rice
275	N45.6931672	W89.46788947	10	-	-	-	No Reading
276	N45.69545722	W89.46677599	-	-	-	-	N/A - Wild Rice
277	N45.69469219	W89.46678326	-	-	-	-	N/A - Wild Rice
278	N45.69392715	W89.46679053	4	M	Pole Rake	0	-
279	N45.69316211	W89.4667978	4	M	Pole Rake	0	-
280	N45.69239707	W89.46680507	5	M	Pole Rake	0	-
281	N45.69545212	W89.46568428	-	-	-	-	N/A - Wild Rice
282	N45.69468708	W89.46569156	-	-	-	-	N/A - Wild Rice
283	N45.69392205	W89.46569885	4	M	Pole Rake	0	-
284	N45.69315701	W89.46570613	11	-	-	-	No Reading
285	N45.69544701	W89.46459257	5	M	Pole Rake	0	-
286	N45.69468197	W89.46459987	-	-	-	-	N/A - Wild Rice
287	N45.69391694	W89.46460717	9	-	-	-	No Reading
288	N45.69544189	W89.46350085	5	M	Pole Rake	0	-
289	N45.69467685	W89.46350817	8	-	-	-	No Reading
290	N45.69391182	W89.46351549	-	-	-	-	N/A - Wild Rice
291	N45.69314678	W89.4635228	-	-	-	-	N/A - Wild Rice
292	N45.69543676	W89.46240914	-	-	-	-	N/A - Wild Rice
293	N45.69467172	W89.46241647	-	-	-	-	N/A - Wild Rice
294	N45.69390668	W89.4624238	5	M	Pole Rake	0	-
295	N45.69314165	W89.46243113	4	M	Pole Rake	0	-
296	N45.69237661	W89.46243846	4	M	Pole Rake	0	-
297	N45.69466658	W89.46132478	6	M	Pole Rake	0	-
298	N45.69390154	W89.46133212	5	M	Pole Rake	0	-
299	N45.69313651	W89.46133947	6	M	Pole Rake	0	-
300	N45.69237147	W89.46134681	5	M	Pole Rake	0	-

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
301	N45.69466143	W89.46023308	-	-	-	-	N/A - Land
302	N45.69389639	W89.46024044	-	-	-	-	N/A
303	N45.69313135	W89.4602478	-	-	-	-	N/A - Wild Rice
304	N45.69236632	W89.46025516	10	-	-	-	No Reading
305	N45.69465626	W89.45914139	-	-	-	-	N/A - Land
306	N45.69389123	W89.45914876	-	-	-	-	N/A - Land
307	N45.69312619	W89.45915614	-	-	-	-	N/A - Land
308	N45.69236115	W89.45916351	4	M	Pole Rake	0	-
309	N45.69159612	W89.45917089	-	-	-	-	N/A - Wild Rice
310	N45.69235598	W89.45807186	2	W	Pole Rake	0	-
311	N45.69159094	W89.45807925	5	S	Pole Rake	0	-
312	N45.69082591	W89.45808664	5	M	Pole Rake	0	-
313	N45.68929583	W89.45810142	-	-	-	-	N/A
314	N45.6885308	W89.45810881	-	-	-	-	N/A
315	N45.68776576	W89.45811619	-	-	-	-	N/A
316	N45.69158576	W89.45698762	-	-	-	-	N/A - Land
317	N45.69082072	W89.45699502	11	-	-	-	No Reading
318	N45.69005569	W89.45700242	11	-	-	-	No Reading
319	N45.68776058	W89.45702463	-	-	-	-	N/A
320	N45.69081553	W89.4559034	-	-	-	-	N/A - Wild Rice
321	N45.69005049	W89.45591082	-	-	-	-	N/A - Wild Rice
322	N45.68928546	W89.45591824	12	-	-	-	No Reading
323	N45.68852042	W89.45592566	-	-	-	-	N/A - Wild Rice
324	N45.68775538	W89.45593307	-	-	Pole Rake	-	N/A Wild Rice
325	N45.6923404	W89.45479692	-	-	-	-	N/A
326	N45.68928025	W89.45482665	5	M	Pole Rake	0	-
327	N45.68851522	W89.45483408	3	M	Pole Rake	0	-
328	N45.68775018	W89.45484151	-	-	Pole Rake	-	N/A Heavy Weeds
329	N45.68698514	W89.45484894	-	-	-	-	N/A - Wild Rice
330	N45.68239492	W89.45489353	8	-	-	-	No Reading
331	N45.68162989	W89.45490096	14	-	-	-	No Reading
332	N45.68927504	W89.45373506	5	M	Pole Rake	0	-
333	N45.68851	W89.45374251	9	-	-	-	No Reading
334	N45.68774497	W89.45374995	-	-	-	-	N/A - Wild Rice
335	N45.68697993	W89.4537574	5	M	Pole Rake	0	-
336	N45.68621489	W89.45376485	-	-	-	-	N/A - Wild Rice
337	N45.68544986	W89.45377229	-	-	-	-	N/A
338	N45.68468482	W89.45377974	-	-	-	-	N/A - Land
339	N45.68391978	W89.45378718	4	S,M	Pole Rake	0	NWM
340	N45.68315475	W89.45379463	10	-	-	-	No Reading
341	N45.68238971	W89.45380207	5	M	Pole Rake	0	-
342	N45.68162467	W89.45380952	7	M	Pole Rake	0	-
343	N45.68085964	W89.45381696	8	-	-	-	No Reading
344	N45.69232996	W89.45261362	-	-	-	-	N/A - Land
345	N45.69156492	W89.45262108	-	-	-	-	N/A - Wild Rice
346	N45.69079989	W89.45262855	3	M	Pole Rake	0	-
347	N45.69003485	W89.45263601	-	-	-	-	N/A - Land
348	N45.68926982	W89.45264347	-	-	-	-	N/A - Land
349	N45.68850478	W89.45265093	8	-	-	-	No Reading
350	N45.68773974	W89.45265839	4	M	Pole Rake	0	-

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
351	N45.68697471	W89.45266586	4	M	Pole Rake	0	NWM
352	N45.68620967	W89.45267332	5	M	Pole Rake	0	-
353	N45.68544463	W89.45268078	5	M	Pole Rake	0	NWM
354	N45.6846796	W89.45268824	4	M	Pole Rake	0	-
355	N45.68391456	W89.4526957	6	M	Pole Rake	0	-
356	N45.68314952	W89.45270316	9	-	-	-	No Reading
357	N45.68238449	W89.45271062	5	M	Pole Rake	0	NWM
358	N45.68161945	W89.45271808	6	M	Pole Rake	0	-
359	N45.68085441	W89.45272554	7	M	Pole Rake	0	-
360	N45.68008937	W89.452733	11	-	-	-	No Reading
361	N45.69308976	W89.45151449	-	-	-	-	N/A
362	N45.69232472	W89.45152197	-	-	-	-	N/A
363	N45.69155969	W89.45152945	3	M	Pole Rake	0	-
364	N45.69079465	W89.45153693	-	-	-	-	N/A - Land
365	N45.68849954	W89.45155936	2	S	Pole Rake	0	-
366	N45.68773451	W89.45156684	8	-	-	-	No Reading
367	N45.68696947	W89.45157431	5	M	Pole Rake	0	-
368	N45.68620444	W89.45158179	5	M	Pole Rake	0	-
369	N45.6854394	W89.45158926	6	M	Pole Rake	0	-
370	N45.68467436	W89.45159674	7	M	Pole Rake	0	-
371	N45.68390933	W89.45160421	7	M	Pole Rake	0	-
372	N45.68314429	W89.45161169	9	-	-	-	No Reading
373	N45.68237925	W89.45161916	6	M	Pole Rake	0	-
374	N45.68161422	W89.45162664	6	M	Pole Rake	0	-
375	N45.68084918	W89.45163411	7	M	Pole Rake	0	-
376	N45.68008414	W89.45164159	11	-	-	-	No Reading
377	N45.69002437	W89.4504528	-	-	-	-	N/A
378	N45.6884943	W89.45046779	-	-	-	-	N/A - Land
379	N45.68772926	W89.45047528	9	-	-	-	No Reading
380	N45.68696423	W89.45048277	-	-	Pole Rake	-	N/A Wild Rice
381	N45.68619919	W89.45049026	5	M	Pole Rake	0	-
382	N45.68543415	W89.45049775	6	M	Pole Rake	0	-
383	N45.68466912	W89.45050524	6	M	Pole Rake	0	No Weeds
384	N45.68390408	W89.45051273	8	-	-	-	No Reading
385	N45.68313904	W89.45052022	5	M	Pole Rake	0	-
386	N45.68237401	W89.45052771	5	M	Pole Rake	0	-
387	N45.68160897	W89.4505352	-	-	-	-	N/A - Wild Rice
388	N45.68084393	W89.45054269	9	-	-	-	No Reading
389	N45.6800789	W89.45055018	5	M,W	Pole Rake	0	-
390	N45.67931386	W89.45055766	-	-	-	-	N/A - Wild Rice
391	N45.67166348	W89.45063253	-	-	-	-	N/A
392	N45.67089845	W89.45064001	-	-	-	-	N/A
393	N45.67013341	W89.4506475	-	-	-	-	N/A
394	N45.66936837	W89.45065498	-	-	-	-	N/A
395	N45.68925408	W89.44936871	-	-	-	-	N/A
396	N45.68848904	W89.44937621	-	-	-	-	N/A
397	N45.68772401	W89.44938372	3	M	Pole Rake	0	-
398	N45.68695897	W89.44939123	9	-	-	-	No Reading
399	N45.68619394	W89.44939873	3	M	Pole Rake	0	-
400	N45.6854289	W89.44940624	5	M	Pole Rake	0	NWM

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401	N45.68466386	W89.44941374	6	M	Pole Rake	0	-
402	N45.68389883	W89.44942125	4	S	Pole Rake	0	-
403	N45.68313379	W89.44942875	5	M	Pole Rake	0	-
404	N45.68236875	W89.44943626	5	M	Pole Rake	0	-
405	N45.68160372	W89.44944376	10	-	-	-	No Reading
406	N45.68083868	W89.44945126	5	M	Pole Rake	0	-
407	N45.68007364	W89.44945877	7	M	Pole Rake	0	-
408	N45.67930861	W89.44946627	7	M	Pole Rake	0	NWM
409	N45.67777853	W89.44948128	6	M	Pole Rake	0	-
410	N45.67395334	W89.44951878	3	S	Pole Rake	0	NWM
411	N45.67318831	W89.44952628	6	M	Pole Rake	0	NWM
412	N45.67242327	W89.44953378	6	M	Pole Rake	0	NWM
413	N45.67165823	W89.44954128	5	M,W	Pole Rake	0	NWM
414	N45.67089319	W89.44954878	-	-	-	-	N/A
415	N45.67012815	W89.44955628	-	-	-	-	N/A
416	N45.65865257	W89.44966874	8	M	Pole Rake	0	No Weeds
417	N45.65635745	W89.44969122	-	-	Pole Rake	-	N/A Heavy Weeds
418	N45.68771874	W89.44829216	-	-	Pole Rake	-	N/A Wild Rice
419	N45.68695371	W89.44829968	-	-	-	-	N/A - Wild Rice
420	N45.68618867	W89.4483072	8	-	-	-	No Reading
421	N45.68542363	W89.44831472	10	-	-	-	No Reading
422	N45.6846586	W89.44832224	-	-	-	-	N/A - Wild Rice
423	N45.68389356	W89.44832976	-	-	Pole Rake	-	N/A Heavy Weeds
424	N45.68312852	W89.44833728	5	M	Pole Rake	0	NWM
425	N45.68236349	W89.4483448	6	M	Pole Rake	0	-
426	N45.68159845	W89.44835232	9	-	-	-	No Reading
427	N45.68083342	W89.44835984	6	M	Pole Rake	0	-
428	N45.68006838	W89.44836736	7	M	Pole Rake	0	-
429	N45.67930334	W89.44837488	8	-	-	-	No Reading
430	N45.6785383	W89.44838239	8	-	-	-	No Reading
431	N45.67777327	W89.44838991	6	M	Pole Rake	0	-
432	N45.67700823	W89.44839743	7	M	Pole Rake	0	-
433	N45.67318304	W89.44843501	6	M	Pole Rake	0	-
434	N45.67241801	W89.44844252	8	M	Pole Rake	0	-
435	N45.67165297	W89.44845004	6	M	Pole Rake	0	-
436	N45.65711723	W89.44859276	6	M	Pole Rake	0	-
437	N45.65635219	W89.44860027	3	M	Pole Rake	0	NWM
438	N45.65558715	W89.44860778	4	M	Pole Rake	0	-
439	N45.65482211	W89.44861529	7	M	Pole Rake	0	NWM
440	N45.68771346	W89.4472006	-	-	-	-	N/A - Land
441	N45.68694843	W89.44720814	-	-	-	-	N/A
442	N45.68618339	W89.44721568	-	-	-	-	N/A - Wild Rice
443	N45.68541836	W89.44722321	-	-	-	-	N/A - Wild Rice
444	N45.68465332	W89.44723075	-	-	-	-	N/A - Wild Rice
445	N45.68388829	W89.44723828	-	-	-	-	N/A
446	N45.68312325	W89.44724582	4	M	Pole Rake	0	NWM
447	N45.68235821	W89.44725335	7	M	Pole Rake	0	-
448	N45.68159318	W89.44726088	9	-	-	-	No Reading
449	N45.68082814	W89.44726842	6	M	Pole Rake	0	-
450	N45.6800631	W89.44727595	14	-	-	-	No Reading

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451	N45.67929807	W89.44728348	10	-	-	-	No Reading
452	N45.67853303	W89.44729102	6	M	Pole Rake	0	-
453	N45.67776799	W89.44729855	11	-	-	-	No Reading
454	N45.67700296	W89.44730608	7	M	Pole Rake	0	-
455	N45.67623792	W89.44731361	6	M	Pole Rake	0	NWM
456	N45.67394281	W89.4473362	5	M	Pole Rake	0	-
457	N45.67317777	W89.44734373	6	M	Pole Rake	0	NWM
458	N45.67241273	W89.44735126	8	M	Pole Rake	0	No Weeds
459	N45.67164769	W89.44735879	7	W	Pole Rake	0	No Weeds
460	N45.65864204	W89.44748675	9	-	-	-	No Reading
461	N45.65634692	W89.44750933	13	-	-	-	No Reading
462	N45.65558188	W89.44751685	11	-	-	-	No Reading
463	N45.65481684	W89.44752437	12	-	-	-	No Reading
464	N45.6540518	W89.4475319	12	-	-	-	No Reading
465	N45.68694314	W89.4461166	-	-	-	-	N/A
466	N45.68617811	W89.44612415	-	-	-	-	N/A - Wild Rice
467	N45.68541307	W89.4461317	-	-	-	-	N/A - Wild Rice
468	N45.68464804	W89.44613925	-	-	-	-	N/A - Wild Rice
469	N45.683883	W89.4461468	-	-	-	-	N/A
470	N45.68311796	W89.44615435	4	M	Pole Rake	0	NWM
471	N45.68235293	W89.4461619	5	M,W	Pole Rake	0	-
472	N45.67929278	W89.44619209	8	-	-	-	No Reading
473	N45.67852774	W89.44619964	8	-	-	-	No Reading
474	N45.67776271	W89.44620718	9	S	Pole Rake	0	No Weeds
475	N45.67699767	W89.44621473	6	M	Pole Rake	0	-
476	N45.67623263	W89.44622228	8	S	Pole Rake	0	-
477	N45.67393752	W89.44624491	-	-	Pole Rake	-	N/A Heavy Weeds,Wild Rice
478	N45.67317249	W89.44625246	-	-	Pole Rake	-	N/A Heavy Weeds,Wild Rice
479	N45.67240745	W89.44626	6	M	Pole Rake	0	-
480	N45.67164241	W89.44626755	11	-	-	-	No Reading
481	N45.67087737	W89.44627509	3	G	Pole Rake	0	-
482	N45.65863675	W89.44639576	9	-	-	-	No Reading
483	N45.65787172	W89.4464033	12	-	-	-	No Reading
484	N45.65710668	W89.44641084	12	-	-	-	No Reading
485	N45.65634164	W89.44641838	9	-	-	-	No Reading
486	N45.6555766	W89.44642592	9	-	-	-	No Reading
487	N45.65481156	W89.44643345	9	-	-	-	No Reading
488	N45.65404652	W89.44644099	9	-	-	-	No Reading
489	N45.65328148	W89.44644853	15	-	-	-	No Reading
490	N45.68617281	W89.44503262	-	-	-	-	N/A - Wild Rice
491	N45.68540777	W89.44504019	-	-	-	-	N/A - Wild Rice
492	N45.68464274	W89.44504775	-	-	-	-	N/A - Wild Rice
493	N45.6838777	W89.44505532	-	-	-	-	N/A
494	N45.68005252	W89.44509313	8	-	-	-	No Reading
495	N45.67928749	W89.4451007	8	-	-	-	No Reading
496	N45.67852245	W89.44510826	12	-	-	-	No Reading
497	N45.67775741	W89.44511582	6	S	Pole Rake	0	-
498	N45.67699238	W89.44512338	11	-	-	-	No Reading
499	N45.67622734	W89.44513094	8	M	Pole Rake	0	-
500	N45.6754623	W89.4451385	9	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Rhinelander Flowage (766 Sample points)
Date: 7/25/07, 7/26/07, 7/27/07, & 7/28/07
WBIC: 1580100
County: Oneida
Crew: RAL/CTM
Datum: WGS84

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
501	N45.67469726	W89.44514606	4	M	Pole Rake	0	-
502	N45.67393223	W89.44515363	-	-	Pole Rake	-	N/A Wild Rice
503	N45.67316719	W89.44516119	5	M	Pole Rake	0	-
504	N45.67240215	W89.44516875	7	M	Pole Rake	0	-
505	N45.67163712	W89.4451763	9	-	-	-	No Reading
506	N45.67087208	W89.44518386	11	-	-	-	No Reading
507	N45.67010704	W89.44519142	4	G	Pole Rake	0	-
508	N45.669342	W89.44519898	4	S	Pole Rake	0	-
509	N45.66857696	W89.44520654	-	-	-	-	N/A
510	N45.66092658	W89.44528211	2	S	Pole Rake	0	-
511	N45.66016154	W89.44528966	5	S,W	Pole Rake	0	-
512	N45.6593965	W89.44529722	9	-	-	-	No Reading
513	N45.65863146	W89.44530477	11	-	-	-	No Reading
514	N45.65786642	W89.44531232	9	-	-	-	No Reading
515	N45.65710138	W89.44531988	9	-	-	-	No Reading
516	N45.65633634	W89.44532743	4	W	Pole Rake	0	-
517	N45.6555713	W89.44533498	6	M	Pole Rake	0	-
518	N45.65480627	W89.44534254	8	M	Pole Rake	0	No Weeds
519	N45.65404123	W89.44535009	9	-	-	-	No Reading
520	N45.65327619	W89.44535764	9	-	-	-	No Reading
521	N45.65251115	W89.44536519	12	-	-	-	No Reading
522	N45.65174611	W89.44537275	9	-	-	-	No Reading
523	N45.65098106	W89.4453803	9	-	-	-	No Reading
524	N45.65021602	W89.44538785	9	-	-	-	No Reading
525	N45.68540247	W89.44394868	-	-	-	-	N/A - Wild Rice
526	N45.68081225	W89.44399415	8	-	-	-	No Reading
527	N45.68004722	W89.44400173	15	-	-	-	No Reading
528	N45.67928218	W89.4440093	7	M	Pole Rake	0	-
529	N45.67851714	W89.44401688	11	-	-	-	No Reading
530	N45.67775211	W89.44402446	11	-	-	-	No Reading
531	N45.67698707	W89.44403203	7	S	Pole Rake	0	-
532	N45.67622203	W89.44403961	14	-	-	-	No Reading
533	N45.675457	W89.44404719	8	S,M	Pole Rake	0	-
534	N45.67469196	W89.44405476	8	M	Pole Rake	0	-
535	N45.67392692	W89.44406234	8	M	Pole Rake	0	-
536	N45.67316189	W89.44406991	9	-	-	-	No Reading
537	N45.67239685	W89.44407749	4	S	Pole Rake	0	-
538	N45.67163181	W89.44408506	10	-	-	-	No Reading
539	N45.67086677	W89.44409263	9	S	Pole Rake	0	-
540	N45.67010174	W89.44410021	11	-	-	-	No Reading
541	N45.6693367	W89.44410778	9	-	-	-	No Reading
542	N45.66857166	W89.44411535	4	S	Pole Rake	0	-
543	N45.66780662	W89.44412293	4	S	Pole Rake	0	-
544	N45.66704158	W89.4441305	7	M	Pole Rake	0	-
545	N45.66627655	W89.44413807	7	M	Pole Rake	0	-
546	N45.66551151	W89.44414564	10	-	-	-	No Reading
547	N45.66474647	W89.44415322	12	-	-	-	No Reading
548	N45.66398143	W89.44416079	10	-	-	-	No Reading
549	N45.66321639	W89.44416836	11	-	-	-	No Reading
550	N45.66245135	W89.44417593	14	-	-	-	No Reading

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
551	N45.66168632	W89.4441835	9	-	-	-	No Reading
552	N45.66092128	W89.44419107	9	-	-	-	No Reading
553	N45.66015624	W89.44419864	9	-	-	-	No Reading
554	N45.6593912	W89.44420621	12	-	-	-	No Reading
555	N45.65862616	W89.44421378	3	S,G	Pole Rake	0	-
556	N45.65786112	W89.44422135	7	M	Pole Rake	0	-
557	N45.65480096	W89.44425162	-	-	-	-	N/A - Land
558	N45.65403592	W89.44425919	4	M	Pole Rake	0	-
559	N45.65327088	W89.44426675	6	M	Pole Rake	0	-
560	N45.65250584	W89.44427432	6	S	Pole Rake	0	No Weeds
561	N45.6517408	W89.44428189	16	-	-	-	No Reading
562	N45.65097576	W89.44428945	10	-	-	-	No Reading
563	N45.65021072	W89.44429702	9	-	-	-	No Reading
564	N45.64944568	W89.44430458	9	-	-	-	No Reading
565	N45.68157197	W89.44289513	5	M	Pole Rake	0	-
566	N45.68080693	W89.44290273	7	M	Pole Rake	0	No Weeds
567	N45.6800419	W89.44291032	7	S	Pole Rake	0	No Weeds
568	N45.67851183	W89.4429255	6	M	Pole Rake	0	-
569	N45.67774679	W89.44293309	7	M,W	Pole Rake	0	-
570	N45.67698175	W89.44294069	8	-	-	-	No Reading
571	N45.67621672	W89.44294828	8	M	Pole Rake	0	-
572	N45.67545168	W89.44295587	9	M	Pole Rake	0	-
573	N45.67468664	W89.44296346	9	S	Pole Rake	0	-
574	N45.67392161	W89.44297105	9	-	-	-	No Reading
575	N45.67315657	W89.44297864	10	-	-	-	No Reading
576	N45.67239153	W89.44298623	11	-	-	-	No Reading
577	N45.6716265	W89.44299382	10	-	-	-	No Reading
578	N45.67086146	W89.44300141	9	M	Pole Rake	0	NWM
579	N45.67009642	W89.44300899	9	M	Pole Rake	0	-
580	N45.66933138	W89.44301658	10	-	-	-	No Reading
581	N45.66856635	W89.44302417	9	-	-	-	No Reading
582	N45.66780131	W89.44303176	11	-	-	-	No Reading
583	N45.66703627	W89.44303935	9	-	-	-	No Reading
584	N45.66627123	W89.44304693	10	-	-	-	No Reading
585	N45.66550619	W89.44305452	14	-	-	-	No Reading
586	N45.66474116	W89.44306211	6	M	Pole Rake	0	-
587	N45.66397612	W89.44306969	4	S	Pole Rake	0	-
588	N45.66321108	W89.44307728	5	S,W	Pole Rake	0	-
589	N45.66244604	W89.44308486	6	W,M	Pole Rake	0	-
590	N45.661681	W89.44309245	7	M	Pole Rake	0	-
591	N45.66091596	W89.44310003	12	-	-	-	No Reading
592	N45.66015093	W89.44310762	14	-	-	-	No Reading
593	N45.65785581	W89.44313037	-	-	-	-	N/A - Land
594	N45.65097045	W89.44319861	9	M	Pole Rake	0	-
595	N45.65020541	W89.44320619	12	-	-	-	No Reading
596	N45.64944037	W89.44321377	10	-	-	-	No Reading
597	N45.68233168	W89.44179609	-	-	-	-	N/A
598	N45.6785065	W89.44183413	7	M	Pole Rake	0	-
599	N45.67774146	W89.44184173	5	S	Pole Rake	0	-
600	N45.67697643	W89.44184934	12	S	Pole Rake	0	No Weeds

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Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
601	N45.67621139	W89.44185694	8	M	Pole Rake	0	-
602	N45.67544635	W89.44186455	8	S	Pole Rake	0	-
603	N45.67468132	W89.44187215	10	-	-	-	No Reading
604	N45.67391628	W89.44187976	12	-	-	-	No Reading
605	N45.67315124	W89.44188736	9	-	-	-	No Reading
606	N45.67238621	W89.44189497	10	-	-	-	No Reading
607	N45.67162117	W89.44190257	11	-	-	-	No Reading
608	N45.67085613	W89.44191018	10	-	-	-	No Reading
609	N45.6700911	W89.44191778	9	-	-	-	No Reading
610	N45.66932606	W89.44192538	14	-	-	-	No Reading
611	N45.66856102	W89.44193299	9	-	-	-	No Reading
612	N45.66779598	W89.44194059	12	-	-	-	No Reading
613	N45.66703095	W89.44194819	9	-	-	-	No Reading
614	N45.66626591	W89.44195579	13	-	-	-	No Reading
615	N45.66550087	W89.44196339	-	-	-	-	N/A
616	N45.66473583	W89.441971	-	-	-	-	N/A
617	N45.66397079	W89.4419786	-	-	-	-	N/A
618	N45.66320576	W89.4419862	6	M	Pole Rake	0	-
619	N45.66244072	W89.4419938	7	M	Pole Rake	0	-
620	N45.65020009	W89.44211536	9	-	-	-	No Reading
621	N45.64943505	W89.44212296	14	-	-	-	No Reading
622	N45.68309138	W89.44069701	-	-	-	-	N/A
623	N45.68232634	W89.44070464	-	-	-	-	N/A
624	N45.6792662	W89.44073513	7	M	Pole Rake	0	No Weeds
625	N45.67850116	W89.44074275	6	M	Pole Rake	0	-
626	N45.67697109	W89.44075799	2	G	Pole Rake	0	-
627	N45.67620605	W89.44076561	13	-	-	-	No Reading
628	N45.67544102	W89.44077323	8	S	Pole Rake	0	-
629	N45.67467598	W89.44078085	8	S,G	Pole Rake	0	-
630	N45.67391094	W89.44078847	10	-	-	-	No Reading
631	N45.67314591	W89.44079609	10	-	-	-	No Reading
632	N45.67238087	W89.44080371	8	S,G	Pole Rake	0	No Weeds
633	N45.67161583	W89.44081133	9	-	-	-	No Reading
634	N45.6708508	W89.44081895	13	-	-	-	No Reading
635	N45.67008576	W89.44082657	8	M	Pole Rake	0	-
636	N45.66932072	W89.44083418	9	-	-	-	No Reading
637	N45.66855569	W89.4408418	4	Rock,G	Pole Rake	0	No Weeds
638	N45.66779065	W89.44084942	4	S	Pole Rake	0	NWM
639	N45.6647305	W89.44087989	-	-	-	-	N/A - Land
640	N45.66396546	W89.4408875	6	M	Pole Rake	0	No Weeds
641	N45.66320042	W89.44089512	6	S	Pole Rake	0	-
642	N45.66243538	W89.44090273	6	M	Pole Rake	0	NWM
643	N45.65019476	W89.44102454	6	M	Pole Rake	0	-
644	N45.64942972	W89.44103215	10	-	-	-	No Reading
645	N45.64866468	W89.44103976	9	-	-	-	No Reading
646	N45.67314056	W89.43970482	-	-	-	-	N/A - Land
647	N45.67237552	W89.43971245	9	S	Pole Rake	0	-
648	N45.67161049	W89.43972009	10	-	-	-	No Reading
649	N45.67084545	W89.43972772	6	M,W	Pole Rake	0	-
650	N45.67008041	W89.43973535	7	S	Pole Rake	0	-

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651	N45.66931538	W89.43974299	7	M	Pole Rake	0	-
652	N45.66855034	W89.43975062	7	M	Pole Rake	0	NWM
653	N45.66549019	W89.43978115	-	-	-	-	N/A
654	N45.66472515	W89.43978878	6	M	Pole Rake	0	NWM
655	N45.65095446	W89.43992608	7	M	Pole Rake	0	NWM
656	N45.65018942	W89.43993371	7	M	Pole Rake	0	-
657	N45.64942438	W89.43994133	9	-	-	-	No Reading
658	N45.64865934	W89.43994896	13	-	-	-	No Reading
659	N45.6478943	W89.43995658	9	-	-	-	No Reading
660	N45.67160513	W89.43862884	-	-	-	-	N/A - Land
661	N45.67084009	W89.43863649	6	M	Pole Rake	0	-
662	N45.67007506	W89.43864414	7	S	Pole Rake	0	NWM
663	N45.66931002	W89.43865179	7	M	Pole Rake	0	NWM
664	N45.66854498	W89.43865944	7	M	Pole Rake	0	NWM
665	N45.65171414	W89.4388276	9	S	Pole Rake	0	No Weeds
666	N45.6509491	W89.43883524	9	-	-	-	No Reading
667	N45.65018406	W89.43884288	5	M	Pole Rake	0	-
668	N45.64941902	W89.43885052	9	-	-	-	No Reading
669	N45.64865398	W89.43885816	12	-	-	-	No Reading
670	N45.64788894	W89.4388658	10	-	-	-	No Reading
671	N45.6471239	W89.43887344	9	-	-	-	No Reading
672	N45.67083473	W89.43754527	6	M	Pole Rake	0	NWM
673	N45.67006969	W89.43755293	6	M	Pole Rake	0	NWM
674	N45.65170878	W89.43773675	9	S	Pole Rake	0	No Weeds
675	N45.65094374	W89.4377444	6	S	Pole Rake	0	NWM
676	N45.6501787	W89.43775206	9	-	-	-	No Reading
677	N45.64941366	W89.43775971	9	-	-	-	No Reading
678	N45.64864862	W89.43776737	10	-	-	-	No Reading
679	N45.64788358	W89.43777502	12	-	-	-	No Reading
680	N45.64711854	W89.43778267	9	-	-	-	No Reading
681	N45.67159439	W89.43644636	6	M	Pole Rake	0	NWM
682	N45.67082935	W89.43645404	4	S	Pole Rake	0	-
683	N45.65246844	W89.43663822	3	G	Pole Rake	0	-
684	N45.6517034	W89.43664589	8	M	Pole Rake	0	-
685	N45.65093836	W89.43665356	9	-	-	-	No Reading
686	N45.65017333	W89.43666123	9	-	-	-	No Reading
687	N45.64940829	W89.4366689	9	-	-	-	No Reading
688	N45.64864325	W89.43667657	10	-	-	-	No Reading
689	N45.64787821	W89.43668424	11	-	-	-	No Reading
690	N45.64711317	W89.43669191	11	-	-	-	No Reading
691	N45.64634813	W89.43669957	4	W	Pole Rake	0	-
692	N45.65246306	W89.43554735	9	S	Pole Rake	0	No Weeds
693	N45.65169802	W89.43555504	9	-	-	-	No Reading
694	N45.65093298	W89.43556272	3	S	Pole Rake	0	NWM
695	N45.65016794	W89.43557041	9	-	-	-	No Reading
696	N45.6494029	W89.43557809	9	-	-	-	No Reading
697	N45.64787282	W89.43559346	6	M	Pole Rake	0	-
698	N45.64710778	W89.43560114	10	-	-	-	No Reading
699	N45.64634274	W89.43560882	9	-	-	-	No Reading
700	N45.65245766	W89.43445648	1	Rock,G	Pole Rake	0	-

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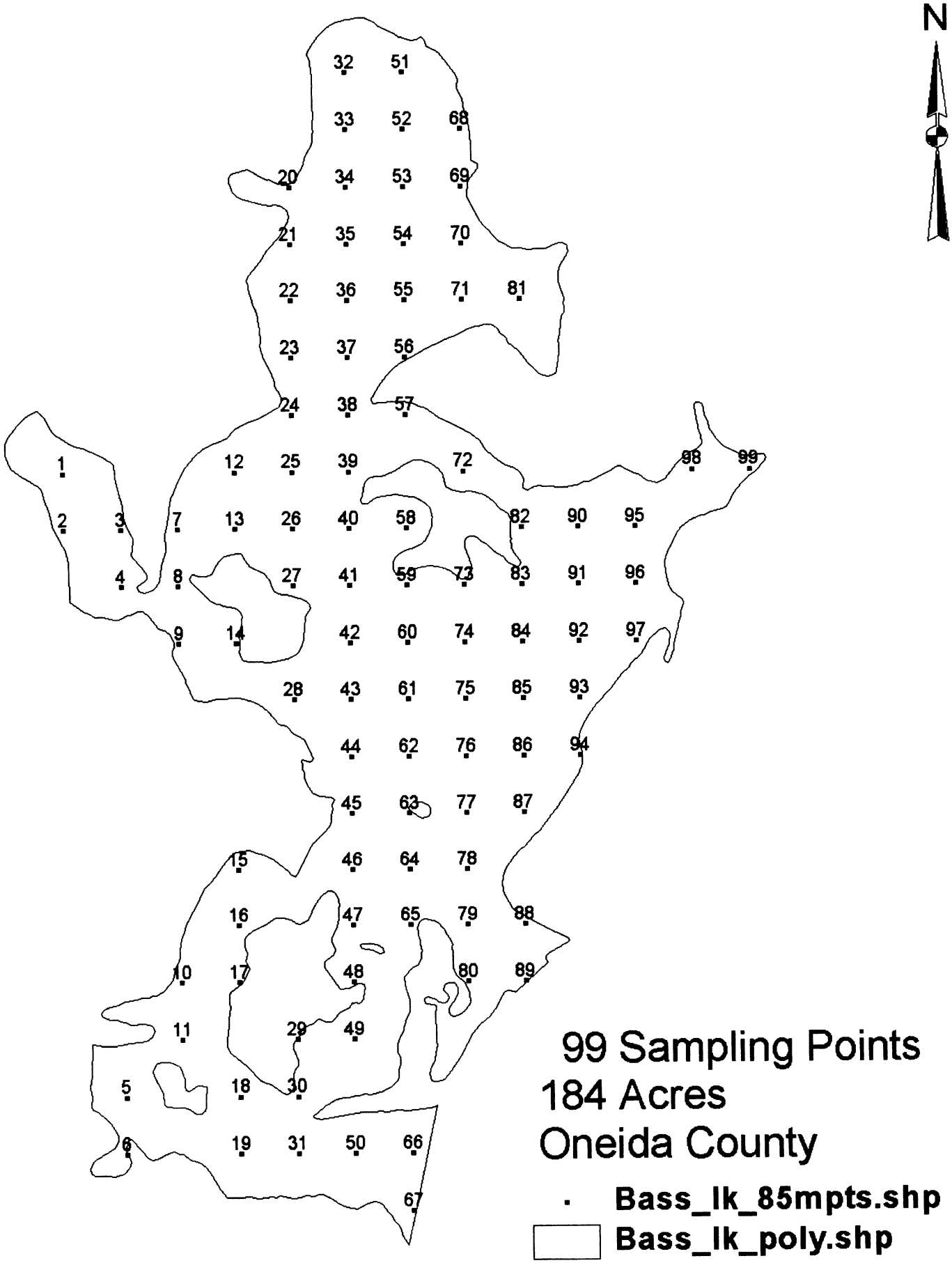
701	N45.65169262	W89.43446418	9	S	Pole Rake	0	-
702	N45.65092759	W89.43447188	9	S	Pole Rake	0	No Weeds
703	N45.65016255	W89.43447958	9	-	-	-	No Reading
704	N45.64939751	W89.43448728	9	-	-	-	No Reading
705	N45.64786743	W89.43450268	6	M	Pole Rake	0	NWM
706	N45.64710239	W89.43451037	9	M	Pole Rake	0	No Weeds
707	N45.64633735	W89.43451807	9	-	-	-	No Reading
708	N45.65168722	W89.43337333	9	S	Pole Rake	0	No Weeds
709	N45.65092218	W89.43338104	9	W	Pole Rake	0	No Weeds
710	N45.65015714	W89.43338875	9	-	-	-	No Reading
711	N45.6493921	W89.43339647	7	S	Pole Rake	0	NWM
712	N45.64862706	W89.43340418	7	-	-	-	No Reading
713	N45.64786202	W89.4334119	4	M	Pole Rake	0	NWM
714	N45.64709699	W89.43341961	8	S,W	Pole Rake	0	-
715	N45.64633195	W89.43342732	4	S	Pole Rake	0	-
716	N45.6516818	W89.43228247	8	M	Pole Rake	0	No Weeds
717	N45.64862165	W89.43231339	9	-	-	-	No Reading
718	N45.64785661	W89.43232112	6	S	Pole Rake	0	-
719	N45.64709157	W89.43232884	10	-	-	-	No Reading
720	N45.64861622	W89.43122259	4	M	Pole Rake	0	-
721	N45.64785118	W89.43123034	9	-	-	-	No Reading
722	N45.64708615	W89.43123808	13	-	-	-	No Reading
723	N45.64861079	W89.4301318	6	S	Pole Rake	0	-
724	N45.64784575	W89.43013956	10	-	-	-	No Reading
725	N45.64708071	W89.43014731	10	-	-	-	No Reading
726	N45.64860534	W89.429041	10	-	-	-	No Reading
727	N45.6478403	W89.42904878	14	-	-	-	No Reading
728	N45.64707526	W89.42905655	3	G	Pole Rake	0	-
729	N45.64859988	W89.42795021	10	-	-	-	No Reading
730	N45.64783485	W89.427958	13	-	-	-	No Reading
731	N45.64706981	W89.42796579	9	-	-	-	No Reading
732	N45.65012449	W89.42684381	10	M	Pole Rake	0	-
733	N45.64782938	W89.42686722	11	-	-	-	No Reading
734	N45.64706434	W89.42687502	9	-	-	-	No Reading
735	N45.65011901	W89.42575299	7	S,W	Pole Rake	0	-
736	N45.64935398	W89.42576081	9	-	-	-	No Reading
737	N45.64858894	W89.42576862	6	M	Pole Rake	0	-
738	N45.6478239	W89.42577644	12	-	-	-	No Reading
739	N45.64705886	W89.42578426	11	-	-	-	No Reading
740	N45.64629382	W89.42579207	6	M	Pole Rake	0	-
741	N45.64934849	W89.42467	9	W	Pole Rake	0	No Weeds
742	N45.64858345	W89.42467783	9	-	-	-	No Reading
743	N45.64781841	W89.42468566	13	-	-	-	No Reading
744	N45.64705337	W89.42469349	11	-	-	-	No Reading
745	N45.64628834	W89.42470133	7	W	Pole Rake	0	No Weeds
746	N45.64934299	W89.42357919	9	-	-	-	No Reading
747	N45.64857795	W89.42358704	12	-	-	-	No Reading
748	N45.64781291	W89.42359489	9	-	-	-	No Reading
749	N45.64704788	W89.42360273	14	-	-	-	No Reading
750	N45.64628284	W89.42361058	11	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Rhinelander Flowage (766 Sample points)
Date: 7/25/07, 7/26/07, 7/27/07, & 7/28/07
WBIC: 1580100
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
751	N45.6455178	W89.42361842	5	S	Pole Rake	0	-
752	N45.64857244	W89.42249625	11	-	-	-	No Reading
753	N45.64780741	W89.42250411	12	-	-	-	No Reading
754	N45.64704237	W89.42251197	11	-	-	-	No Reading
755	N45.64627733	W89.42251983	14	-	-	-	No Reading
756	N45.64551229	W89.42252769	12	-	-	-	No Reading
757	N45.64474725	W89.42253555	9	-	-	-	No Reading
758	N45.64627181	W89.42142908	7	W	Pole Rake	0	No Weeds
759	N45.64550677	W89.42143696	9	-	-	-	No Reading
760	N45.64474174	W89.42144483	13	-	-	-	No Reading
761	N45.6439767	W89.42145271	14	-	-	-	No Reading
762	N45.64321166	W89.42146058	12	-	-	-	No Reading
763	N45.64244662	W89.42146846	11	-	-	-	No Reading
764	N45.64168158	W89.42147633	2	S	Pole Rake	0	-
765	N45.64244109	W89.42037779	5	G	Pole Rake	0	-
766	N45.64167605	W89.42038567	11	-	-	-	No Reading



Milfoil Intercept Point Report
Project/Lake: Rhinelander/Bass Lake - (99 Sample points)
Date: 7/28/07
WBIC: 1580300
County: Oneida
Crew: RAL/CTM
Datum: WGS84

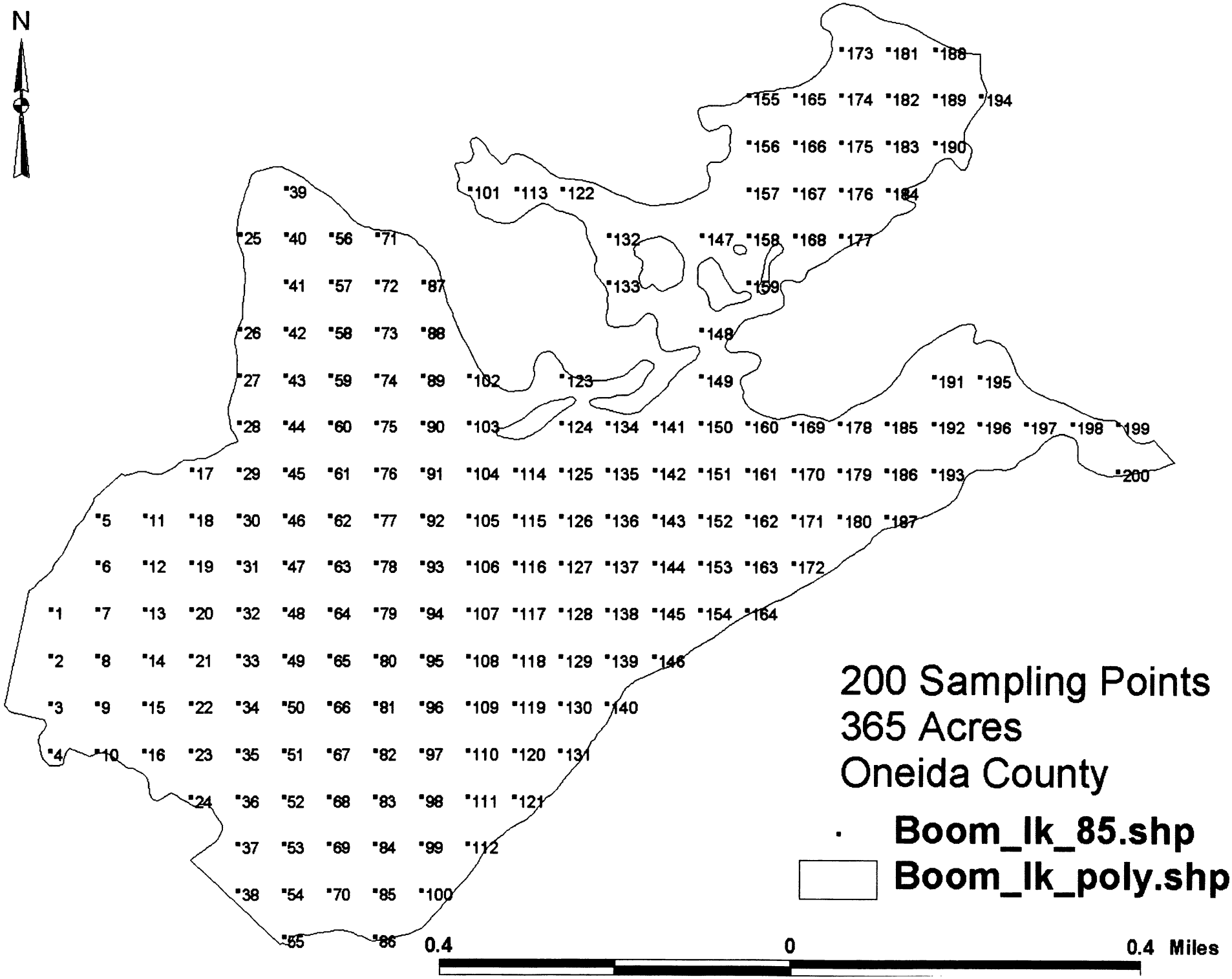
N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
1	N45.66269032	W89.43460928	6	M	Pole Rake	0	-
2	N45.66192528	W89.43461698	6	S	Pole Rake	0	-
3	N45.66191988	W89.43352593	4	S	Pole Rake	0	-
4	N45.66115484	W89.43353364	2	S	Pole Rake	0	-
5	N45.6542695	W89.43360307	10	M	Pole Rake	0	-
6	N45.65350446	W89.43361078	-	-	-	-	N/A - Land
7	N45.66191446	W89.43243487	6	M	Pole Rake	0	-
8	N45.66114943	W89.4324426	6	M	Pole Rake	0	-
9	N45.66038439	W89.43245033	6	M	Pole Rake	0	-
10	N45.65579416	W89.43249671	9	S	Pole Rake	0	-
11	N45.65502912	W89.43250443	9	W	Pole Rake	0	NWM
12	N45.66267407	W89.43133608	5	S	Pole Rake	0	-
13	N45.66190904	W89.43134382	6	M	Pole Rake	0	-
14	N45.66037896	W89.43135931	6	M	Pole Rake	0	-
15	N45.65731881	W89.43139029	6	S	Pole Rake	0	-
16	N45.65655378	W89.43139803	8	M	Pole Rake	0	NWM
17	N45.65578874	W89.43140577	8	M	Pole Rake	0	-
18	N45.65425866	W89.43142126	10	S,W	Pole Rake	0	-
19	N45.65349362	W89.431429	10	W	Pole Rake	0	-
20	N45.66649382	W89.4302062	1	G	Pole Rake	0	-
21	N45.66572878	W89.43021396	12	S	Pole Rake	0	-
22	N45.66496375	W89.43022173	16	M	Pole Rake	0	No Weeds
23	N45.66419871	W89.43022949	13	M	Pole Rake	0	-
24	N45.66343367	W89.43023725	5	W	Pole Rake	0	NWM
25	N45.66266864	W89.43024501	6	M	Pole Rake	0	NWM
26	N45.6619036	W89.43025277	6	S	Pole Rake	0	-
27	N45.66113856	W89.43026053	6	M	Pole Rake	0	NWM
28	N45.65960849	W89.43027605	7	S	Pole Rake	0	-
29	N45.65501826	W89.4303226	7	W	Pole Rake	0	No Weeds
30	N45.65425323	W89.43033035	9	M	Pole Rake	0	-
31	N45.65348819	W89.43033811	12	M	Pole Rake	0	No Weeds
32	N45.66801844	W89.42909951	13	M	Pole Rake	0	No Weeds
33	N45.66725341	W89.42910728	16	M	Pole Rake	0	No Weeds
34	N45.66648837	W89.42911506	17	-	-	-	No Reading
35	N45.66572334	W89.42912284	17	-	-	-	No Reading
36	N45.6649583	W89.42913061	18	-	-	-	No Reading
37	N45.66419326	W89.42913839	13	M	Pole Rake	0	-
38	N45.66342823	W89.42914617	5	M	Pole Rake	0	NWM
39	N45.66266319	W89.42915394	4	M	Pole Rake	0	NWM
40	N45.66189815	W89.42916172	5	W	Pole Rake	0	-
41	N45.66113312	W89.42916949	6	W	Pole Rake	0	-
42	N45.66036808	W89.42917727	7	M	Pole Rake	0	-
43	N45.65960304	W89.42918504	7	W	Pole Rake	0	-
44	N45.65883801	W89.42919281	7	M	Pole Rake	0	-
45	N45.65807297	W89.42920059	8	M	Pole Rake	0	-
46	N45.65730793	W89.42920836	8	M	Pole Rake	0	NWM
47	N45.65654289	W89.42921613	13	M	Pole Rake	0	No Weeds
48	N45.65577786	W89.42922391	9	M	Pole Rake	0	-
49	N45.65501282	W89.42923168	12	M	Pole Rake	0	No Weeds
50	N45.65348274	W89.42924722	12	S	Pole Rake	0	No Weeds

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Bass Lake - (99 Sample points)
Date: 7/28/07
WBIC: 1580300
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
51	N45.66801299	W89.42800834	13	M	Pole Rake	0	No Weeds
52	N45.66724795	W89.42801613	16	-	-	-	No Reading
53	N45.66648291	W89.42802392	18	-	-	-	No Reading
54	N45.66571788	W89.42803171	18	-	-	-	No Reading
55	N45.66495284	W89.4280395	15	M	Pole Rake	0	No Weeds
56	N45.66418781	W89.42804729	6	S	Pole Rake	0	-
57	N45.66342277	W89.42805508	-	-	-	-	N/A
58	N45.6618927	W89.42807066	5	M	Pole Rake	0	-
59	N45.66112766	W89.42807845	7	S	Pole Rake	0	NWM
60	N45.66036262	W89.42808624	6	M	Pole Rake	0	-
61	N45.65959759	W89.42809403	7	W	Pole Rake	0	-
62	N45.65883255	W89.42810182	7	M	Pole Rake	0	-
63	N45.65806751	W89.42810961	-	-	-	-	N/A - Land
64	N45.65730248	W89.4281174	8	M	Pole Rake	0	NWM
65	N45.65653744	W89.42812518	4	S	Pole Rake	0	NWM
66	N45.65347729	W89.42815633	19	-	-	-	No Reading
67	N45.65271225	W89.42816412	14	-	-	-	No Reading
68	N45.66724248	W89.42692497	5	S	Pole Rake	0	-
69	N45.66647745	W89.42693278	6	W	Pole Rake	0	-
70	N45.66571241	W89.42694059	14	M	Pole Rake	0	No Weeds
71	N45.66494737	W89.42694839	13	M	Pole Rake	0	No Weeds
72	N45.66265227	W89.42697181	-	-	-	-	N/A
73	N45.66112219	W89.42698742	5	S	Pole Rake	0	NWM
74	N45.66035716	W89.42699522	6	S	Pole Rake	0	-
75	N45.65959212	W89.42700302	7	M	Pole Rake	0	-
76	N45.65882708	W89.42701083	7	M	Pole Rake	0	-
77	N45.65806205	W89.42701863	8	M	Pole Rake	0	-
78	N45.65729701	W89.42702643	8	M	Pole Rake	0	-
79	N45.65653197	W89.42703424	7	S	Pole Rake	0	-
80	N45.65576694	W89.42704204	7	W	Pole Rake	0	NWM
81	N45.6649419	W89.42585728	6	W	Pole Rake	0	NWM
82	N45.66188175	W89.42588856	-	-	-	-	N/A
83	N45.66111672	W89.42589638	5	M	Pole Rake	0	-
84	N45.66035168	W89.4259042	6	M	Pole Rake	0	-
85	N45.65958664	W89.42591202	5	W	Pole Rake	0	NWM
86	N45.65882161	W89.42591984	6	M	Pole Rake	0	-
87	N45.65805657	W89.42592765	7	M	Pole Rake	0	-
88	N45.6565265	W89.42594329	5	S	Pole Rake	0	-
89	N45.65576146	W89.42595111	5	G	Pole Rake	0	-
90	N45.66187626	W89.42479751	4	W	Pole Rake	0	-
91	N45.66111123	W89.42480534	5	M	Pole Rake	0	-
92	N45.66034619	W89.42481318	5	M	Pole Rake	0	-
93	N45.65958116	W89.42482101	6	M	Pole Rake	0	NWM
94	N45.65881612	W89.42482885	2	S	Pole Rake	0	-
95	N45.66187077	W89.42370646	5	M	Pole Rake	0	-
96	N45.66110573	W89.42371431	5	M	Pole Rake	0	-
97	N45.66034069	W89.42372216	5	M	Pole Rake	0	NWM
98	N45.66263029	W89.42260754	-	-	-	-	N/A
99	N45.66262477	W89.42151648	-	-	-	-	N/A - Land



Milfoil Intercept Point Report
Project/Lake: Rhinelander/Boom Lake (200 Sample points)
Date: 7/28/2007
WBIC: 1580200
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
1	N45.65379373	W89.42716359	19	-	-	-	No Reading
2	N45.65302869	W89.42717139	20	-	-	-	No Reading
3	N45.65226365	W89.42717919	8	M	Pole Rake	0	NWM
4	N45.65149862	W89.42718699	9	M	Pole Rake	0	-
5	N45.65531833	W89.42605706	15	-	-	-	No Reading
6	N45.65455329	W89.42606488	20	-	-	-	No Reading
7	N45.65378825	W89.42607269	20	-	-	-	No Reading
8	N45.65302322	W89.42608051	21	-	-	-	No Reading
9	N45.65225818	W89.42608832	19	-	-	-	No Reading
10	N45.65149314	W89.42609614	1	S	Pole Rake	0	-
11	N45.65531284	W89.42496614	20	-	-	-	No Reading
12	N45.65454781	W89.42497397	21	-	-	-	No Reading
13	N45.65378277	W89.4249818	21	-	-	-	No Reading
14	N45.65301773	W89.42498963	23	-	-	-	No Reading
15	N45.65225269	W89.42499746	24	-	-	-	No Reading
16	N45.65148766	W89.42500529	20	-	-	-	No Reading
17	N45.65607238	W89.42386737	16	-	-	-	No Reading
18	N45.65530735	W89.42387522	21	-	-	-	No Reading
19	N45.65454231	W89.42388306	22	-	-	-	No Reading
20	N45.65377727	W89.42389091	23	-	-	-	No Reading
21	N45.65301224	W89.42389875	25	-	-	-	No Reading
22	N45.6522472	W89.4239066	24	-	-	-	No Reading
23	N45.65148216	W89.42391444	21	-	-	-	No Reading
24	N45.65071712	W89.42392228	5	G	Pole Rake	0	-
25	N45.65989206	W89.42273713	1	S	Pole Rake	0	-
26	N45.65836199	W89.42275285	3	S	Pole Rake	0	-
27	N45.65759695	W89.42276071	5	W	Pole Rake	0	-
28	N45.65683191	W89.42276857	3	S	Pole Rake	0	-
29	N45.65606688	W89.42277643	19	-	-	-	No Reading
30	N45.65530184	W89.42278429	22	-	-	-	No Reading
31	N45.6545368	W89.42279215	24	-	-	-	No Reading
32	N45.65377177	W89.42280001	26	-	-	-	No Reading
33	N45.65300673	W89.42280787	29	-	-	-	No Reading
34	N45.65224169	W89.42281573	24	-	-	-	No Reading
35	N45.65147666	W89.42282359	22	-	-	-	No Reading
36	N45.65071162	W89.42283145	21	-	-	-	No Reading
37	N45.64994658	W89.42283931	1.3	-	-	-	No Reading
38	N45.64918154	W89.42284716	11	-	-	-	No Reading
39	N45.66065158	W89.42163824	6	M	Pole Rake	0	NWM
40	N45.65988654	W89.42164612	8	W	Pole Rake	0	No Weeds
41	N45.6591215	W89.42165399	10	W	Pole Rake	0	No Weeds
42	N45.65835647	W89.42166187	11	W	Pole Rake	0	No Weeds
43	N45.65759143	W89.42166975	13	-	-	-	No Reading
44	N45.6568264	W89.42167762	12	W	Pole Rake	0	No Weeds
45	N45.65606136	W89.4216855	20	-	-	-	No Reading
46	N45.65529632	W89.42169337	22	-	-	-	No Reading
47	N45.65453129	W89.42170125	24	-	-	-	No Reading
48	N45.65376625	W89.42170912	27	-	-	-	No Reading
49	N45.65300121	W89.42171699	29	-	-	-	No Reading
50	N45.65223618	W89.42172487	28	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Boom Lake (200 Sample points)
Date: 7/28/2007
WBIC: 1580200
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
51	N45.65147114	W89.42173274	26	-	-	-	No Reading
52	N45.6507061	W89.42174061	21	-	-	-	No Reading
53	N45.64994106	W89.42174849	16	-	-	-	No Reading
54	N45.64917603	W89.42175636	13	-	-	-	No Reading
55	N45.64841099	W89.42176423	2	Rock	Pole Rake	0	-
56	N45.65988101	W89.42055511	9	W	Pole Rake	0	No Weeds
57	N45.65911598	W89.420563	10	W	Pole Rake	0	No Weeds
58	N45.65835094	W89.42057089	14	-	-	-	No Reading
59	N45.6575859	W89.42057878	15	-	-	-	No Reading
60	N45.65682087	W89.42058667	16	-	-	-	No Reading
61	N45.65605583	W89.42059456	22	-	-	-	No Reading
62	N45.6552908	W89.42060245	23	-	-	-	No Reading
63	N45.65452576	W89.42061034	26	-	-	-	No Reading
64	N45.65376072	W89.42061823	28	-	-	-	No Reading
65	N45.65299569	W89.42062612	28	-	-	-	No Reading
66	N45.65223065	W89.42063401	27	-	-	-	No Reading
67	N45.65146561	W89.42064189	27	-	-	-	No Reading
68	N45.65070057	W89.42064978	17	-	-	-	No Reading
69	N45.64993554	W89.42065767	19	-	-	-	No Reading
70	N45.6491705	W89.42066556	15	-	-	-	No Reading
71	N45.65987547	W89.41946409	8	W	Pole Rake	0	No Weeds
72	N45.65911044	W89.419472	12	-	-	-	No Reading
73	N45.6583454	W89.41947991	15	-	-	-	No Reading
74	N45.65758037	W89.41948781	16	-	-	-	No Reading
75	N45.65681533	W89.41949572	16	-	-	-	No Reading
76	N45.65605029	W89.41950362	21	-	-	-	No Reading
77	N45.65528526	W89.41951153	25	-	-	-	No Reading
78	N45.65452022	W89.41951943	26	-	-	-	No Reading
79	N45.65375518	W89.41952734	28	-	-	-	No Reading
80	N45.65299015	W89.41953524	27	-	-	-	No Reading
81	N45.65222511	W89.41954314	27	-	-	-	No Reading
82	N45.65146007	W89.41955105	24	-	-	-	No Reading
83	N45.65069504	W89.41955895	22	-	-	-	No Reading
84	N45.64993	W89.41956685	19	-	-	-	No Reading
85	N45.64916496	W89.41957475	15	-	-	-	No Reading
86	N45.64839993	W89.41958266	2	S,W	Pole Rake	0	No Weeds
87	N45.65910489	W89.41838101	10	-	-	-	No Reading
88	N45.65833985	W89.41838893	15	-	-	-	No Reading
89	N45.65757482	W89.41839685	16	-	-	-	No Reading
90	N45.65680978	W89.41840477	15	-	-	-	No Reading
91	N45.65604475	W89.41841269	20	-	-	-	No Reading
92	N45.65527971	W89.41842061	22	-	-	-	No Reading
93	N45.65451467	W89.41842853	24	-	-	-	No Reading
94	N45.65374964	W89.41843644	27	-	-	-	No Reading
95	N45.6529846	W89.41844436	26	-	-	-	No Reading
96	N45.65221956	W89.41845228	25	-	-	-	No Reading
97	N45.65145453	W89.4184602	22	-	-	-	No Reading
98	N45.65068949	W89.41846812	20	-	-	-	No Reading
99	N45.64992445	W89.41847603	19	-	-	-	No Reading
100	N45.64915942	W89.41848395	18	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Boom Lake (200 Sample points)
Date: 7/28/2007
WBIC: 1580200
County: Oneida
Crew: RAL/CTM
Datum: WGS84

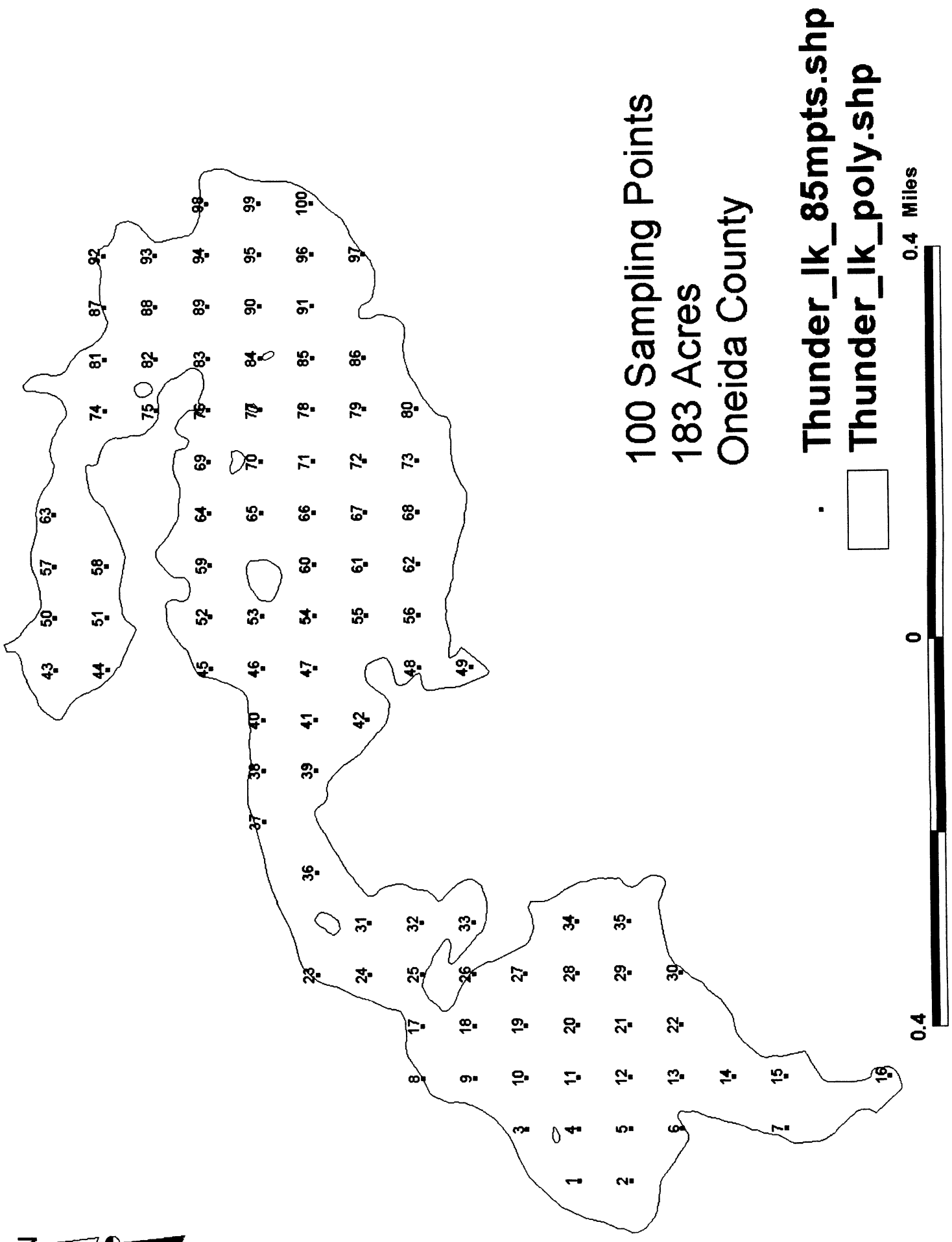
N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
101	N45.6606294	W89.41727414	-	-	-	-	N/A Cattails
102	N45.65756926	W89.41730588	12	-	-	-	No Reading
103	N45.65680422	W89.41731382	13	-	-	-	No Reading
104	N45.65603919	W89.41732175	20	-	-	-	No Reading
105	N45.65527415	W89.41732968	21	-	-	-	No Reading
106	N45.65450911	W89.41733762	22	-	-	-	No Reading
107	N45.65374408	W89.41734555	24	-	-	-	No Reading
108	N45.65297904	W89.41735349	23	-	-	-	No Reading
109	N45.65221401	W89.41736142	21	-	-	-	No Reading
110	N45.65144897	W89.41736935	18	-	-	-	No Reading
111	N45.65068393	W89.41737728	20	-	-	-	No Reading
112	N45.6499189	W89.41738522	18	-	-	-	No Reading
113	N45.66062383	W89.41618311	-	-	-	-	N/A Cattails
114	N45.65603362	W89.41623081	19	-	-	-	No Reading
115	N45.65526858	W89.41623876	19	-	-	-	No Reading
116	N45.65450355	W89.41624671	21	-	-	-	No Reading
117	N45.65373851	W89.41625466	21	-	-	-	No Reading
118	N45.65297347	W89.41626261	21	-	-	-	No Reading
119	N45.65220844	W89.41627056	21	-	-	-	No Reading
120	N45.6514434	W89.4162785	13	-	-	-	No Reading
121	N45.65067836	W89.41628645	19	-	-	-	No Reading
122	N45.66061825	W89.41509209	4	M	Pole Rake	0	NWM
123	N45.65755811	W89.41512395	5	M	Pole Rake	0	NWM
124	N45.65679307	W89.41513191	9	-	-	-	No Reading
125	N45.65602804	W89.41513988	18	-	-	-	No Reading
126	N45.655263	W89.41514784	18	-	-	-	No Reading
127	N45.65449797	W89.41515581	16	-	-	-	No Reading
128	N45.65373293	W89.41516377	20	-	-	-	No Reading
129	N45.65296789	W89.41517173	20	-	-	-	No Reading
130	N45.65220286	W89.4151797	20	-	-	-	No Reading
131	N45.65143782	W89.41518766	14	-	-	-	No Reading
132	N45.65984762	W89.41400904	5	M	Pole Rake	0	-
133	N45.65908259	W89.41401702	5	M	Pole Rake	0	-
134	N45.65678748	W89.41404096	16	-	-	-	No Reading
135	N45.65602245	W89.41404894	18	-	-	-	No Reading
136	N45.65525741	W89.41405692	19	-	-	-	No Reading
137	N45.65449238	W89.4140649	18	-	-	-	No Reading
138	N45.65372734	W89.41407288	19	-	-	-	No Reading
139	N45.6529623	W89.41408086	19	-	-	-	No Reading
140	N45.65219727	W89.41408883	11	-	-	-	No Reading
141	N45.65678188	W89.41295001	15	-	-	-	No Reading
142	N45.65601685	W89.41295801	18	-	-	-	No Reading
143	N45.65525181	W89.412966	16	-	-	-	No Reading
144	N45.65448678	W89.412974	18	-	-	-	No Reading
145	N45.65372174	W89.41298199	17	-	-	-	No Reading
146	N45.6529567	W89.41298998	10	-	-	-	No Reading
147	N45.65983641	W89.41182703	5	S	Pole Rake	0	-
148	N45.65830634	W89.41184305	6	M	Pole Rake	0	-
149	N45.65754131	W89.41185106	3	G	Pole Rake	0	-
150	N45.65677627	W89.41185906	17	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Boom Lake (200 Sample points)
Date: 7/28/2007
WBIC: 1580200
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
151	N45.65601123	W89.41186707	18	-	-	-	No Reading
152	N45.6552462	W89.41187508	18	-	-	-	No Reading
153	N45.65448116	W89.41188309	18	-	-	-	No Reading
154	N45.65371613	W89.4118911	16	-	-	-	No Reading
155	N45.66212589	W89.41071194	-	-	-	-	N/A
156	N45.66136086	W89.41071997	3	M	Pole Rake	0	-
157	N45.66059582	W89.41072799	4	M	Pole Rake	0	-
158	N45.65983079	W89.41073602	5	W	Pole Rake	0	-
159	N45.65906575	W89.41074404	1	M	Pole Rake	0	-
160	N45.65677065	W89.41076812	15	-	-	-	No Reading
161	N45.65600561	W89.41077614	18	-	-	-	No Reading
162	N45.65524058	W89.41078416	17	-	-	-	No Reading
163	N45.65447554	W89.41079219	17	-	-	-	No Reading
164	N45.65371051	W89.41080021	4	S	Pole Rake	0	-
165	N45.66212026	W89.40962089	5	M	Pole Rake	0	-
166	N45.66135522	W89.40962893	11	M	Pole Rake	0	-
167	N45.66059019	W89.40963697	13	-	-	-	No Reading
168	N45.65982515	W89.40964501	9	M	Pole Rake	0	NWM
169	N45.65676502	W89.40967717	12	-	-	-	No Reading
170	N45.65599998	W89.40968521	17	-	-	-	No Reading
171	N45.65523495	W89.40969324	17	-	-	-	No Reading
172	N45.65446991	W89.40970128	16	-	-	-	No Reading
173	N45.66287965	W89.40852178	4	M	Pole Rake	0	-
174	N45.66211461	W89.40852983	9	M	Pole Rake	0	NWM
175	N45.66134958	W89.40853789	20	-	-	-	No Reading
176	N45.66058455	W89.40854595	21	-	-	-	No Reading
177	N45.65981951	W89.408554	9	M	Pole Rake	0	NWM
178	N45.65675937	W89.40858622	7	S	Pole Rake	0	-
179	N45.65599434	W89.40859427	14	-	-	-	No Reading
180	N45.6552293	W89.40860233	15	-	-	-	No Reading
181	N45.66287399	W89.40743071	-	-	-	-	N/A
182	N45.66210896	W89.40743878	6	M,W	Pole Rake	0	NWM
183	N45.66134393	W89.40744685	12	M	Pole Rake	0	-
184	N45.66057889	W89.40745492	6	M	Pole Rake	0	-
185	N45.65675372	W89.40749527	12	-	-	-	No Reading
186	N45.65598869	W89.40750334	11	-	-	-	No Reading
187	N45.65522365	W89.40751141	5	S	Pole Rake	0	No Weeds
188	N45.66286833	W89.40633964	-	-	-	-	N/A
189	N45.6621033	W89.40634773	5	M	Pole Rake	0	-
190	N45.66133826	W89.40635582	5	M	Pole Rake	0	-
191	N45.65751309	W89.40639624	9	-	-	-	No Reading
192	N45.65674806	W89.40640432	11	-	-	-	No Reading
193	N45.65598302	W89.40641241	10	-	-	-	No Reading
194	N45.66209762	W89.40525668	4	M	Pole Rake	0	-
195	N45.65750742	W89.40530528	7	S,G	Pole Rake	0	No Weeds
196	N45.65674238	W89.40531338	11	-	-	-	No Reading
197	N45.6567367	W89.40422243	12	-	-	-	No Reading
198	N45.65673101	W89.40313148	9	-	-	-	No Reading
199	N45.6567253	W89.40204053	9	-	-	-	No Reading
200	N45.65596027	W89.40204868	6	M	Pole Rake	0	No Weeds



Milfoil Intercept Point Report
Project/Lake: Rhinelander/Thunder Lake (100 Sample points)
Date: 7/29/07
WBIC: 1580400
County: Oneida
Crew: RAL/CTM
Datum: WGS84

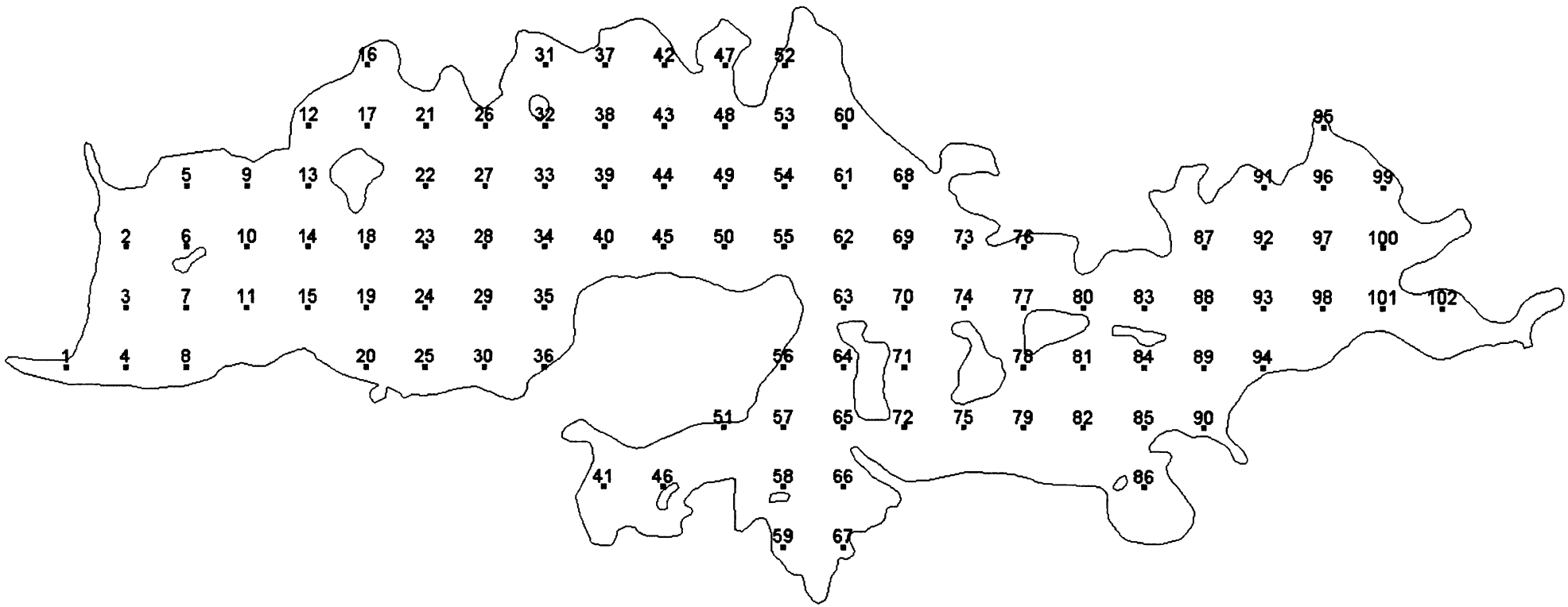
N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
1	N45.66086414	W89.4025797	7	-	-	-	No Reading
2	N45.66009911	W89.40258784	7	-	-	-	No Reading
3	N45.66162347	W89.40148052	7	-	-	-	No Reading
4	N45.66085843	W89.40148867	7	-	-	-	No Reading
5	N45.6600934	W89.40149682	8	-	-	-	No Reading
6	N45.65932837	W89.40150498	3	M	Pole Rake	0	-
7	N45.6577983	W89.40152128	7	-	-	-	No Reading
8	N45.66314781	W89.40037315	4	G	Pole Rake	0	-
9	N45.66238278	W89.40038131	8	-	-	-	No Reading
10	N45.66161775	W89.40038948	10	-	-	-	No Reading
11	N45.66085271	W89.40039765	11	-	-	-	No Reading
12	N45.66008768	W89.40040581	10	-	-	-	No Reading
13	N45.65932265	W89.40041398	12	-	-	-	No Reading
14	N45.65855761	W89.40042214	11	-	-	-	No Reading
15	N45.65779258	W89.40043031	10	-	-	-	No Reading
16	N45.65626251	W89.40044664	7	M	Pole Rake	0	-
17	N45.66314208	W89.39928208	10	-	-	-	No Reading
18	N45.66237705	W89.39929026	7	-	-	-	No Reading
19	N45.66161201	W89.39929844	8	-	-	-	No Reading
20	N45.66084698	W89.39930662	7	-	-	-	No Reading
21	N45.66008195	W89.3993148	7	-	-	-	No Reading
22	N45.65931692	W89.39932298	7	-	-	-	No Reading
23	N45.6646664	W89.39817461	6	M,W	Pole Rake	0	No Weeds
24	N45.66390137	W89.39818281	8	-	-	-	No Reading
25	N45.66313634	W89.39819101	5	M	Pole Rake	0	-
26	N45.6623713	W89.3981992	4	S	Pole Rake	0	-
27	N45.66160627	W89.3982074	5	S	Pole Rake	0	-
28	N45.66084124	W89.3982156	7	-	-	-	No Reading
29	N45.66007621	W89.39822379	7	-	-	-	No Reading
30	N45.65931117	W89.39823199	2	R	Pole Rake	0	-
31	N45.66389562	W89.39709172	10	-	-	-	No Reading
32	N45.66313058	W89.39709994	7	-	-	-	No Reading
33	N45.66236555	W89.39710815	5	M	Pole Rake	0	-
34	N45.66083549	W89.39712457	7	W	Pole Rake	0	No Weeds
35	N45.66007045	W89.39713278	7	W	Pole Rake	0	No Weeds
36	N45.66465488	W89.39599241	11	-	-	-	No Reading
37	N45.66541414	W89.39489307	8	-	-	-	No Reading
38	N45.66540836	W89.39380196	8	-	-	-	No Reading
39	N45.66464333	W89.39381021	7	-	-	-	No Reading
40	N45.66540256	W89.39271084	10	-	-	-	No Reading
41	N45.66463753	W89.39271912	10	-	-	-	No Reading
42	N45.6638725	W89.39272739	7	-	-	-	No Reading
43	N45.66845688	W89.39158658	8	-	-	-	No Reading
44	N45.66769185	W89.39159487	10	-	-	-	No Reading
45	N45.66616179	W89.39161144	7	-	-	-	No Reading
46	N45.66539676	W89.39161973	8	-	-	-	No Reading
47	N45.66463173	W89.39162802	10	-	-	-	No Reading
48	N45.66310166	W89.39164459	5	W	Pole Rake	0	No Weeds
49	N45.66233663	W89.39165288	-	-	-	-	N/A
50	N45.66845106	W89.39049541	7	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Thunder Lake (100 Sample points)
Date: 7/29/07
WBIC: 1580400
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
51	N45.66768603	W89.39050371	9	-	-	-	No Reading
52	N45.66615597	W89.39052032	7	-	-	-	No Reading
53	N45.66539094	W89.39052862	8	-	-	-	No Reading
54	N45.66462591	W89.39053692	10	-	-	-	No Reading
55	N45.66386088	W89.39054522	8	-	-	-	No Reading
56	N45.66309585	W89.39055352	7	-	-	-	No Reading
57	N45.66844524	W89.38940424	9	-	-	-	No Reading
58	N45.66768021	W89.38941255	7	W	Pole Rake	0	No Weeds
59	N45.66615015	W89.38942919	7	-	-	-	No Reading
60	N45.66462008	W89.38944582	11	-	-	-	No Reading
61	N45.66385505	W89.38945414	7	-	-	-	No Reading
62	N45.66309002	W89.38946246	3	M	Pole Rake	0	-
63	N45.6684394	W89.38831306	8	-	-	-	No Reading
64	N45.66614431	W89.38833806	7	-	-	-	No Reading
65	N45.66537928	W89.38834639	7	-	-	-	No Reading
66	N45.66461425	W89.38835473	11	-	-	-	No Reading
67	N45.66384922	W89.38836306	8	-	-	-	No Reading
68	N45.66308419	W89.38837139	7	-	-	-	No Reading
69	N45.66613846	W89.38724694	6	W	Pole Rake	0	No Weeds
70	N45.66537343	W89.38725528	7	-	-	-	No Reading
71	N45.6646084	W89.38726363	8	-	-	-	No Reading
72	N45.66384337	W89.38727198	11	-	-	-	No Reading
73	N45.66307834	W89.38728032	7	-	-	-	No Reading
74	N45.66766266	W89.38613909	9	-	-	-	No Reading
75	N45.66689763	W89.38614745	7	-	-	-	No Reading
76	N45.6661326	W89.38615581	2	S	Pole Rake	0	-
77	N45.66536757	W89.38616417	-	-	-	-	N/A - Land
78	N45.66460254	W89.38617253	8	-	-	-	No Reading
79	N45.66383751	W89.38618089	10	-	-	-	No Reading
80	N45.66307248	W89.38618925	5	W	Pole Rake	0	-
81	N45.6676568	W89.38504793	8	W	Pole Rake	0	No Weeds
82	N45.66689177	W89.38505631	6	W	Pole Rake	0	No Weeds
83	N45.66612674	W89.38506468	7	-	-	-	No Reading
84	N45.66536171	W89.38507306	3	S	Pole Rake	0	-
85	N45.66459668	W89.38508144	10	-	-	-	No Reading
86	N45.66383165	W89.38508981	7	-	-	-	No Reading
87	N45.66765092	W89.38395678	5	W	Pole Rake	0	-
88	N45.66688589	W89.38396517	7	-	-	-	No Reading
89	N45.66612086	W89.38397356	7	-	-	-	No Reading
90	N45.66535583	W89.38398195	8	-	-	-	No Reading
91	N45.6645908	W89.38399034	8	-	-	-	No Reading
92	N45.66764503	W89.38286562	5	W	Pole Rake	0	-
93	N45.66688	W89.38287403	5	W	Pole Rake	0	-
94	N45.66611497	W89.38288243	10	-	-	-	No Reading
95	N45.66534994	W89.38289084	5	W	Pole Rake	0	No Weeds
96	N45.66458491	W89.38289925	7	-	-	-	No Reading
97	N45.66381988	W89.38290765	3	S	Pole Rake	0	-
98	N45.66610907	W89.38179131	5	W	Pole Rake	0	-
99	N45.66534404	W89.38179973	5	M	Pole Rake	0	-
100	N45.66457901	W89.38180815	-	-	Pole Rake	-	N/A



102 Sampling Points
188 Acres
Oneida County

Lake_creek_85mpts.shp
Lake_creek_poly.shp

0.5 0 0.5 Miles

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Lake Creek (102 Sample points)
Date: 7/29/07
WBIC: 1580500
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
1	N45.66905349	W89.41779539	-	-	-	-	N/A
2	N45.67057799	W89.4166883	-	-	-	-	N/A
3	N45.66981296	W89.41669625	-	-	-	-	N/A
4	N45.66904792	W89.4167042	4	M	Pole Rake	0	-
5	N45.67133745	W89.41558912	5	W	Pole Rake	0	No Weeds
6	N45.67057241	W89.41559708	-	-	Pole Rake	-	N/A
7	N45.66980738	W89.41560505	6	W	Pole Rake	0	No Weeds
8	N45.66904235	W89.41561301	5	W	Pole Rake	0	-
9	N45.67133186	W89.41449789	6	W	Pole Rake	0	No Weeds
10	N45.67056683	W89.41450587	7	-	-	-	No Reading
11	N45.66980179	W89.41451384	9	-	-	-	No Reading
12	N45.6720913	W89.41339867	4	W	Pole Rake	0	-
13	N45.67132626	W89.41340666	5	W	Pole Rake	0	No Weeds
14	N45.67056123	W89.41341465	6	-	-	-	No Reading
15	N45.6697962	W89.41342264	9	-	-	-	No Reading
16	N45.67285072	W89.41229941	-	-	-	-	N/A
17	N45.67208569	W89.41230742	4	M	Pole Rake	0	NWM
18	N45.67055562	W89.41232343	6	-	-	-	No Reading
19	N45.66979059	W89.41233144	6	-	-	-	No Reading
20	N45.66902555	W89.41233945	10	-	-	-	No Reading
21	N45.67208007	W89.41121617	2	W/M	Pole Rake	0	NWM
22	N45.67131504	W89.41122419	6	W	Pole Rake	0	No Weeds
23	N45.67055	W89.41123222	6	-	-	-	No Reading
24	N45.66978497	W89.41124024	7	-	-	-	No Reading
25	N45.66901994	W89.41124826	9	-	-	-	No Reading
26	N45.67207444	W89.41012493	3	W	Pole Rake	0	-
27	N45.67130941	W89.41013296	6	-	-	-	No Reading
28	N45.67054437	W89.410141	9	-	-	-	No Reading
29	N45.66977934	W89.41014904	11	-	-	-	No Reading
30	N45.66901431	W89.41015707	6	W	Pole Rake	0	No Weeds
31	N45.67283383	W89.40902563	-	-	-	-	N/A
32	N45.6720688	W89.40903368	2	W	Pole Rake	0	-
33	N45.67130377	W89.40904173	8	-	-	-	No Reading
34	N45.67053873	W89.40904978	6	-	-	-	No Reading
35	N45.6697737	W89.40905783	6	-	-	-	No Reading
36	N45.66900867	W89.40906588	6	-	-	-	No Reading
37	N45.67282818	W89.40793437	2	W	Pole Rake	0	-
38	N45.67206315	W89.40794243	6	-	-	-	No Reading
39	N45.67129812	W89.4079505	6	-	-	-	No Reading
40	N45.67053308	W89.40795857	8	-	-	-	No Reading
41	N45.66747295	W89.40799083	-	-	-	-	N/A
42	N45.67282252	W89.40684311	5	W	Pole Rake	0	-
43	N45.67205749	W89.40685119	6	W	Pole Rake	0	No Weeds
44	N45.67129246	W89.40685927	8	-	-	-	No Reading
45	N45.67052742	W89.40686735	7	-	-	-	No Reading
46	N45.66746729	W89.40689967	-	-	-	-	N/A
47	N45.67281685	W89.40575185	6	M	Pole Rake	0	-
48	N45.67205182	W89.40575994	6	W/M	Pole Rake	0	No Weeds
49	N45.67128679	W89.40576804	11	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Lake Creek (102 Sample points)
Date: 7/29/07
WBIC: 1580500
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
50	N45.67052175	W89.40577614	6	-	-	-	No Reading
51	N45.66822666	W89.40580042	5	W/M	Pole Rake	0	No Weeds
52	N45.67281117	W89.40466059	5	W	Pole Rake	0	-
53	N45.67204614	W89.4046687	6	-	-	-	No Reading
54	N45.6712811	W89.40467681	11	-	-	-	No Reading
55	N45.67051607	W89.40468492	6	W	Pole Rake	0	No Weeds
56	N45.66898601	W89.40470114	4	M,W	Pole Rake	0	-
57	N45.66822098	W89.40470925	6	M	Pole Rake	0	No Weeds
58	N45.66745594	W89.40471736	5	W	Pole Rake	0	-
59	N45.66669091	W89.40472547	-	-	-	-	N/A
60	N45.67204044	W89.40357745	7	-	-	-	No Reading
61	N45.67127541	W89.40358558	7	-	-	-	No Reading
62	N45.67051038	W89.40359371	6	W	Pole Rake	0	No Weeds
63	N45.66974535	W89.40360183	6	M	Pole Rake	0	No Weeds
64	N45.66898032	W89.40360996	6	W	Pole Rake	0	No Weeds
65	N45.66821528	W89.40361808	6	W	Pole Rake	0	No Weeds
66	N45.66745025	W89.40362621	3	W	Pole Rake	0	-
67	N45.66668522	W89.40363433	3	M	Pole Rake	0	-
68	N45.67126971	W89.40249435	7	-	-	-	No Reading
69	N45.67050468	W89.40250249	10	-	-	-	No Reading
70	N45.66973965	W89.40251063	8	-	-	-	No Reading
71	N45.66897461	W89.40251877	10	-	-	-	No Reading
72	N45.66820958	W89.40252691	7	-	-	-	No Reading
73	N45.67049897	W89.40141128	6	W	Pole Rake	0	No Weeds
74	N45.66973393	W89.40141943	5	M	Pole Rake	0	-
75	N45.66820387	W89.40143574	9	-	-	-	No Reading
76	N45.67049324	W89.40032006	6	W	Pole Rake	0	No Weeds
77	N45.66972821	W89.40032823	6	M/W	Pole Rake	0	No Weeds
78	N45.66896318	W89.4003364	8	-	-	-	No Reading
79	N45.66819815	W89.40034457	9	-	-	-	No Reading
80	N45.66972248	W89.39923704	7	-	-	-	No Reading
81	N45.66895745	W89.39924522	9	-	-	-	No Reading
82	N45.66819242	W89.3992534	9	-	-	-	No Reading
83	N45.66971674	W89.39814584	6	W	Pole Rake	0	No Weeds
84	N45.6689517	W89.39815404	9	-	-	-	No Reading
85	N45.66818667	W89.39816224	9	-	-	-	No Reading
86	N45.66742164	W89.39817044	-	-	-	-	N/A
87	N45.67047601	W89.39704643	5	M/W	Pole Rake	0	-
88	N45.66971098	W89.39705464	6	W	Pole Rake	0	No Weeds
89	N45.66894595	W89.39706285	10	-	-	-	No Reading
90	N45.66818092	W89.39707107	6	W	Pole Rake	0	No Weeds
91	N45.67123528	W89.39594698	-	-	-	-	N/A
92	N45.67047025	W89.39595521	5	W	Pole Rake	0	-
93	N45.66970522	W89.39596344	7	-	-	-	No Reading
94	N45.66894019	W89.39597167	4	W	Pole Rake	0	-
95	N45.67199454	W89.39484751	-	-	-	-	N/A
96	N45.6712295	W89.39485576	-	-	-	-	N/A
97	N45.67046447	W89.394864	5	W	Pole Rake	0	-
98	N45.66969944	W89.39487225	10	-	-	-	No Reading

Milfoil Intercept Point Report
Project/Lake: Rhinelander/Lake Creek (102 Sample points)
Date: 7/29/07
WBIC: 1580500
County: Oneida
Crew: RAL/CTM
Datum: WGS84

N/A = Not Accessible
M = Muck
W = Woody Debris
S = Sand
G = Gravel
R = Root Mass (i.e. Lily Pads, Pickerel Weed, etc.)
NWM = Northern Water Milfoil

Point	Lattitude	Longitude	Depth	Sediment	Method	EWM	Comments
99	N45.67122372	W89.39376453	5	M	Pole Rake	0	-
100	N45.67045869	W89.39377279	7	W	Pole Rake	0	No Weeds
101	N45.66969366	W89.39378105	10	-	-	-	No Reading
102	N45.66968786	W89.39268985	6	W	Pole Rake	0	No Weeds

APPENDIX C

Monitoring of Aquatic Macrophytes 2/13/06 (WIDNR)

Baseline Monitoring of Aquatic Macrophytes
2/13/06

Below we outline the protocol for statewide baseline sampling of aquatic macrophytes, with the primary goals of 1) comparing year-to-year data within a lake, and 2) comparing data among lakes. We describe a formal quantitative survey conducted at pre-determined sampling locations distributed evenly over the lake surface (point-intercept approach). We believe that this method, when combined with a boat survey to gather additional information on areas not sampled directly, will best characterize a lake's plant community. The chief benefit of adopting a statewide protocol is that variation in the sample set can be primarily attributed to actual differences in plant communities, instead of the confounding variables introduced by using different sampling techniques.

These guidelines are intended to work on most lakes. However, modifications may be required if a lake is uniquely shaped so that a uniform distribution of points isn't representative (long, skinny lake shape), or if obtaining rake samples is difficult due to substrate (rocky/cobble bottom).

Please note these are "baseline" recommendations. Additional monitoring activities may be warranted if the goal is to assess a specific management activity. For example, to gauge the success of chemical spot-treating stands of an exotic species in a relatively large lake, we recommend additional mapping of the beds within a season before and after treatment.

The baseline sampling described below should be conducted between early July and mid August. Although changes (such as biomass) in the plant community through this long sampling window might complicate data interpretation, in this survey we are mostly interested in species diversity and frequency, variables that should be fairly constant through the growing season. However, as described below, field workers are asked to assess rake fullness for all species and these ratings will likely vary with sample date. For many species, including Eurasian water-milfoil, plant biomass and density will probably increase as the season progresses. Narrow-leaved pondweeds begin to disappear by mid-August. Data for these species must be interpreted carefully with the sampling date in mind.

Curly-leaf pondweed (CLP) creates a special problem because it is often gone before the recommended sampling window between early July and mid-August. If you have any suspicion that CLP is present but not found when sampled, be sure to talk to APM staff to work out the best sampling scheme.

DNR personnel and groups using state money (e.g. planning, protection or aquatic invasive species grants) should follow this protocol.

I. Field Equipment

1. Required field equipment: boat, handheld GPS unit with WAAS (Wide Area Augmentation System) capability (with site locations already loaded, Garmin 76 is a commonly used model

within DNR), a lake map, waterproof field data sheets, pole-mounted rake, weighted rake on a rope, depth finder, storage bags for vouchered specimens, personal flotation device.

2. Recommended equipment (helpful, but not necessary): trolling motor, underwater video camera, plant ID references, hand lens, cooler for storing samples, digital camera to document shoreline features (e.g., deadfall, dock, house) for sample points near shore that will provide a visual complement to a dot on a map, waterproof paper tags and/or Sharpie for labeling bags with vouchers and unknown plant species.

II. Point Intercept Sampling Method

1. Description

We require the following point-intercept sampling protocol. In this method, a large number of sampling sites are distributed in a grid across the lake. There are several benefits to a grid sampling design. An evenly spaced distribution of points results in a good overview of the entire lake. It is easy to replicate, and it is easy to preserve and present the spatial information. Please contact Jen Hauxwell (Jennifer.Hauxwell@dnr.state.wi.us) with lake name, county, water body identification code (WBIC), and any other depth and plant information available so that she can establish sampling points for the lake.

The size of the littoral zone and shape of the lake determines the number of points and the grid resolution. You will receive an electronic file of sampling points to upload into a GPS unit (below). Once on the lake, you will go to each site and collect plants and data as described below.

2. Uploading sampling points to the GPS unit

The following step-by-step instructions were adapted from the WIDNR Garmin GPS Tool User Manual v. 8.2.5, available to DNR employees on the intranet.
<file:///%5C%5Ccentral%5Cet_apps%5CPROD%5CWIDNR_Garmin%5Cstandalone_garmin%5CDEV_Doc%5CWIDNR_Garmin_Standalone_GPS_Tool_User_Guide.pdf>
This is a two step process. First you need to *_load_* the sample points you receive from Jen Hauxwell in a text file into the WIDNR Garmin GPS Tool, a computer file. Second you need to *_upload_* the points from your computer onto the GPS unit itself. For more information or troubleshooting help consult the User Manual.

Please note that GPS units vary in how many way points they can store. In the event that the number of sampling points exceeds your unit's storage capacity, simply split the text file containing the point information into multiple files. Upload successive files of points as needed. (For more information on Garmin GPS units, please see http://www.garmin.com/ and navigate to consumer/outdoor/GPS mapping. Choose a unit and then click on "specifications" and, under navigation features, find the number of waypoints/icons.)

To upload points into your GPS unit from a text file (.txt) using the WIDNR Garmin GPS Tool you will need:

- **PC/laptop with WIDNR Garmin GPS Tool software**. If you do not have the software on your computer contact your administrator for installation.

- **Waypoint .txt file** in the same format as one created by the WI DNR Garmin GPS Tool. Text files received from DNR Research will be in the correct format.

- **PC Interface cable**. Comes standard with the GPS unit, or can be ordered at http://www.garmin.com/outdoor/products.html#mapping.

- **GPS unit with external data port.**

Step 1: SET "SIMULATING GPS" MODE

You must operate the Garmin GPS receiver in Simulating GPS mode while uploading/downloading data, so that the receiver is not trying to acquire satellite data during these activities. Check your GPS manual to determine how to do this. Instructions for the GPSMap 76 are given below.

1. Press and hold the [ON/OFF] button for two seconds to turn the GPS receiver on.

2. Several informational screens will display. Press the [PAGE] button until the first Acquiring Satellites screen appears.

3. Press the [MENU] button and select Start Simulator to see the Simulating GPS page.

Step 2: SET SERIAL DATA FORMAT

You must set the serial data format to GARMIN prior to transferring data. Failure to set the serial data format to GARMIN will cause a communication error between the WIDNR Garmin Tool and the GPS unit. Instructions for a GPSMap 76 are given below.

1. Press the [MENU] button twice, use the rocker key to select Setup, and then press [ENTER].

2. Use the rocker key to scroll left or right until the Interface tab is highlighted. Use the rocker key to scroll down to highlight the drop-down box and press [ENTER].

3. A menu will appear; select GARMIN and [ENTER]. Press [QUIT] twice to return to the main screen.

Step 3: PLUG IN THE PC INTERFACE CABLE

1. Plug the 9-pin serial connector into COM port #1 on your PC. If port #1 is in use, plug into the next available port, and note the port number. The WIDNR Garmin GPS Tool does not support connection through a USB port.

2. Plug the round end of the cable into the external data/auxiliary power port on the back of the GPS receiver. Check your GPS manual if you do not know where the data port is located. The GPS receiver should be on and in "simulating GPS" mode.

Step 4: LOAD WAYPOINT DATA FROM A TEXT FILE TO THE WIDNR GARMIN GPS TOOL

1. Open the WIDNR Garmin GPS Tool file on computer. Select the WIDNR Garmin GPS Tool > File > Load > Waypoints From > GPS Text File option.

2. Enter/Select the path and name of the text file to load into the Open window. The GPS data will be loaded into the WIDNR Garmin GPS Tool. If you have trouble at this point, see the next section on troubleshooting. Otherwise, go on to section 4, Waypoints.

3. Troubleshooting. If you encounter problems during loading, a pop-up window will notify the user. Click OK.

    a. If problems are encountered, check that the COM port is set correctly: GPS > Assign Port > select correct port #.

    b. Also check that the baud rate matches that of the GPS unit: GPS > Assign Port > Baud Rate > select correct rate. A GPSMap 76 will transfer at 9600.

    c. Check that the Serial Data Format is set to GARMIN (outlined in Step 2).

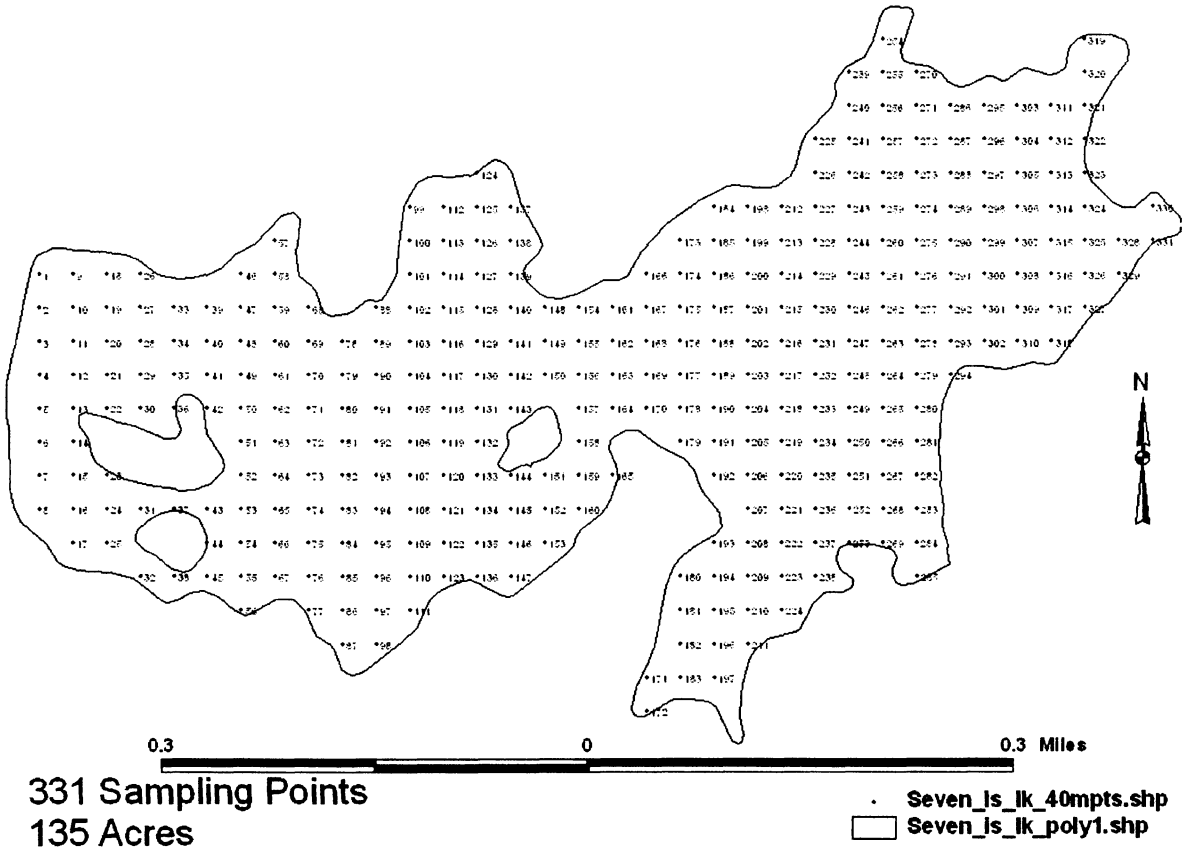
4. Waypoints. You can now view/edit waypoints by clicking the [Advanced] button on the WIDNR Garmin GPS Tool window.

Step 5: UPLOAD WAYPOINT DATA TO THE GPS RECEIVER

1. Select the WIDNR Garmin GPS Tool > Waypoint > Upload option.

2. When complete, the number of uploaded points appears at the bottom of the Garmin GPS Tool window. A pop-up window also indicates the number of waypoints successfully uploaded. Click OK. The uploaded waypoints should now be visible on the GPS receiver's Waypoints display.

3. Below is an example of lake with waypoints.



III. Collecting and Recording Plant Data

1. The rake sampler. The rake is constructed of two rake heads (double rake head) welded together, measuring 13.8 inches (35 centimeters) long with 14 teeth on each side. The handle is 8 ft (2.4 meters) in length, and should include a telescoping extension that results in a total handle length (from tip of rake head to fully extended end) of 15 feet (4.6 meters). You will also need a second, weighted, double rake head on a rope (rake-on-a-rope) to sample deeper sites. See section on "rake construction" for more detail.

2. Using the rake. Collect one rake sample per site. In waters less than 12 feet, handle the rake using the pole. In deeper water, toss the rake-on-a-rope. In either case, try to drag the rake along the bottom for 2.5 feet (0.75 meters). The rake may dislodge plants that will float to the surface, especially short rosette species not easily caught in the rake tines. Record these plants as present and estimate the rake fullness rating, just as you would plants brought up on the rake (see below).

3. Point-intercept sampling issues and procedures.

a. Under-sampling near shore. One problem with the grid system is that it may under-sample very shallow sites where the vegetation is often quite different, even from sites just a bit deeper. To compensate for this problem, it is essential that you visit bays and shoreline areas missed by the grid. Record any species seen, especially emergent vegetation (rooted in water), and describe near-shore habitats on the Boat Survey sheet. These data will not be tallied in the ENTRY or STATS pages but should be recorded on an electronic version of the Boat Survey Sheet to accompany the other data.

b. Navigational error. When navigating to sites using a handheld GPS unit, remember that there will be inherent error in locating points, sometimes as great as 60 feet. In addition to that error, there remains the question of "How close to the point is close enough?" You will almost never be able to sample a point at 0 feet from the point. Total error from the GPS error and navigational error *combined* should not exceed half of the sampling resolution. To avoid this when navigating using the map screen, navigate at no more than an 80-foot zoom level and completely cover the point with the arrow. At this level, the locational arrow on the screen is ~8 m long. This means that to sample with acceptable accuracy, the arrow must completely cover the point you are trying to hit, with the arrow centered over the point. At coarser zoom – 120-foot and up, even if you are completely covering the point you still may be quite far from the point, just because the arrow is so large in comparison to the size of the points. You may need to navigate at a greater zoom resolution, but, as you approach the target point, switch to the 80-ft zoom resolution to assure you hit your point accurately.

c. Hard-to-reach points. It may be hard to get to some sampling sites, especially in certain bays, where the water is very shallow and the substrate is mucky. When possible and practical, try to get to the point by poling with an oar, but do not spend undue time poling to these shallow sites. Due to safety concerns, field workers should not get out and drag the boat through mucky sediment to reach a site. If the sampling site is shallow but the substrate is firm, you should walk to the site from shore. If you cannot access a site, leave the depth blank and record NA (no access) or "land" (if the site is on land) in the comments column. (Remember to transfer these comments to the ENTRY sheet).

4. Filling out the Field Data sheet. Print the FIELD DATA sheet from the Excel workbook APMstats123.xls for use in the field. We recommend printing the data sheet onto waterproof paper such as Xerox Never Tear Paper.

a. Top portion. Fill out the top portion of the Field sheet with lake name, WBIC, county, and date. Also, record all the observers and how many hours they worked on this lake.

b. Site Number. Each site location is defined by the lat/long data imported onto your GPS unit and each site should have one row of data.

c. . Depth. Measure and record the depth at each site sampled, regardless of whether vegetation is present. It is often easiest to mark the pole to establish depth for the shallower sites. However, a variety of options exist for taking depth measurements, including SONAR guns, depth finders that attach to the boat, or depth increments marked on the rope attached to the weighted rake sampler. If using a depth finder, please note that the accuracy decreases greatly in densely vegetated areas—depth will often be given to the top of the vegetation instead of to the lake bottom.

d. Dominant sediment type: Record sediment type (based on how the rake feels when in contact with the bottom) at each site where plants are sampled as: mucky (M), sandy (S), or rocky (R).

e. Pole vs. rope. Record whether the field team held the rake by the pole (P) or rope (R).

f. Species information. Note that the field data entry sheet does not include any species names, except for EWM (Eurasian water-milfoil) and CLP (curly-leaf pondweed). The sampling team must enter the species name the first time that species is encountered. Names will have to be entered again on successive field sheets (as they are encountered). The use of standard abbreviations can greatly shorten this process.

For all species, record the rake fullness rating (1- few, 2- moderate, 3-abundant, see illustration following this text) on the field data entry sheet at each sampling point where it is found. Record rake fullness for filamentous algae as well. Record the rake fullness rating for plants dislodged by, but not collected on the rake (please see "Under-sampling near shore", above). While at a site, look for any other plants (not already recorded) at that site within 6 ft (2m) of the boat. Record these species as a "visual" (V) on the data sheet. These species will be included in total number of species seen but will not be included in summary statistics. Account for plant parts that dangle or trail from the rake tines as if they were fully wrapped around the rake head.

5. Filling out the Boat Survey Data sheet. . Often there will be localized occurrences of certain species (e.g., floating-leaf or emergent species) that are obvious to the viewer but could possibly be missed by the point-intercept grid. As discussed above in "Under-sampling near shore", you should examine shoreline areas that are out of the grid. While you need not make a separate trip around the entire lake, do visit areas that may be under-sampled and record the information (including the closest sampling point) on the Boat Survey (see APMstats123.xls) and on a lake map. Be sure to create an electronic version of the Boat Survey from the field notes.

6. If no plants are found. If no plants are found at a sampling site while approaching a deep section in the lake, record the depth but do not record any species information. Sample one more (deeper) site beyond that point to ensure that you have correctly identified the maximum plant depth. This should be done for each set of points surrounding the deep portion of the lake. Along any N-S or E-W transect, sampling should continue for at least 2 points beyond the last site with plants. Some sites may not have any plants, even if the site is shallower than the maximum plant depth. For these sites, fill out the data sheet as usual (with no species identified). These sites will be included as sites as deep as, or shallower than, the maximum plant depth.

7. Collect voucher samples. Collect 2 samples of each species found on each lake. These samples must be pressed and dried according to the protocol in Appendix F. Send one prepared specimen to the local DNR office (who will pass them on to a University herbarium). Keep one specimen for the lake group as a reference for future plant identification. If the field team is unable to identify a plant, please try to get fresh plants to the local DNR lake management specialist as it is much easier to identify fresh plants than pressed plants. Be sure to let them know you are sending plants so that they can be processed promptly.

IV. Entering data on the spreadsheets and summary data

The APMstats123.xls Excel workbook has 5 spreadsheets:

a. READ ME, with a summary of all the spreadsheets included in the worksheet. The date records the most recent version.

b. Field Data, discussed above.

c. ENTRY, a data entry sheet for transferring field data to the computer spread sheet. You must transfer all of the information collected in the field to the ENTRY sheet. You should be able to copy the coordinates for the sampling points from the text file you uploaded onto the GPS unit and paste these into the entry sheet. There is a column for comments on the ENTRY sheet.

d. STATS, an automated statistics page that provides a summary of the plant data. The summary statistics of the plant survey will automatically appear in the STATS sheet of APMstats123.xls after data are entered in ENTRY.

e. Boat Survey, discussed above.

V. Where to Send Data

Send electronic copies of the ENTRY, STATS and Boat Survey to Jen Hauxwell (Jennifer.Hauxwell@dnr.state.wi.us).

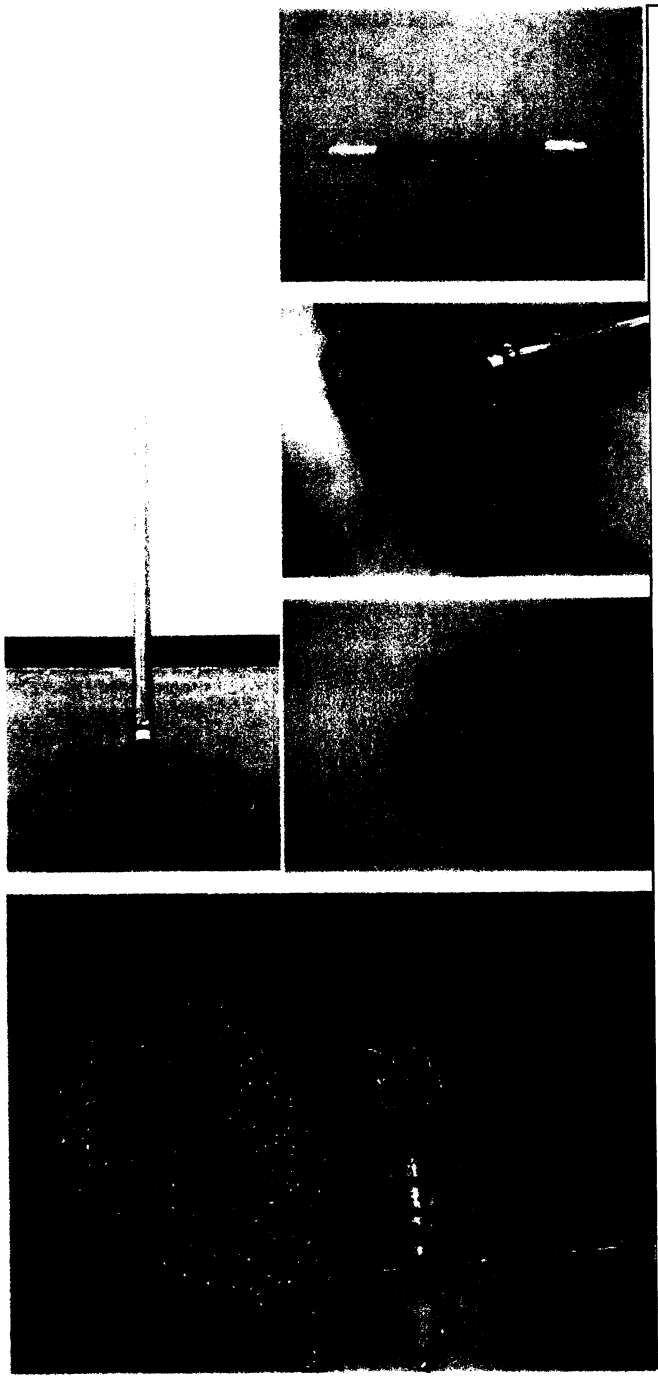
Rake Fullness Ratings

Rake fullness ratings are given from 1-3 for each species. Conditions of the ratings are described below:

Rating	Coverage	Description
1		A few plants on rake head
2		Rake head is about ½ full Can easily see top of rake head
3		Overflowing Cannot see top of rake head

Rake Construction

Pictures of a rake are shown below, with potential vendors of the components indicated. (These are not endorsements of specific vendors.)



Pole Sampler
The rake sampler is made from two rake heads welded together, measuring 13.8 inches (35 centimeters) long with 14 teeth on each side. This example purchased from Menards with wooden poles attached and subsequently removed).

The handle is 8 ft (2.4 meters) in length, and should include a telescoping extension that results in a total handle length (from tip of rake head to fully extended end) of 15 feet (4.6 meters). This example was purchased from a pool supply company in Madison, WI (Bachmann Pool & Spas).

Rope Sampler
A similar rake head should be constructed for the rope sampler. At the point where the pole would be attached, tie on a rope or anchor line of at least 40 ft in length. If desired, attach a 5 lb weight to the top of the rake (away from the tines) or thread it on the rake rope. This example has a length of steel tubing welded to the rake head to serve as a handle through which is strung ~45 ft of climbing rope.

APPENDIX D

Reservoir Elevations During Survey Dates

Rhinelander Hydroelecric Project
FERC #2161
Reservoir Surface Elevations

Date	Elevation (ft. MSL)
7/25/2007	1555.33
7/26/2007	1555.32
7/27/2007	1555.44
7/28/2007	1555.44
7/29/2007	1555.41
7/30/2007	1555.38