

ORIGINAL



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August 11, 2003

CERTIFIED MAIL 7099 3220 0007 4271 5800

Magalie Roman Salas
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

RECEIVED
FEDERAL ENERGY REGULATORY COMMISSION
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Re: N.E.W. Hydro, Inc., Oconto Falls, Wisconsin, FERC Project No. 2523 — 031
Submittal of Purple Loosestrife/Eurasian Watermilfoil Inventory for Year 2001

Dear Ms Salas:

Please find enclosed an original and 8 copies of the Oconto Falls, Wisconsin Project No. 2523 Purple Loosestrife/Eurasian Watermilfoil Inventory for Year 2001 for filing as requested by Diane Murray on August 11, 2003.

If you have any questions regarding this submission, please contact Mr. Richard Loeffler at 920-293-4628 ext. 18.

Sincerely,
NORTH AMERICAN HYDRO, INC.

FOR Charles Alsberg
Executive Vice President

Cc: FERC – CRO
Encl.: 1 original & 8 copies

**Oconto Falls Upper Project Purple Loosestrife & Eurasian Watermilfoil Inventory
July 21 & August 4, 2000
FERC Project #2523 Article 407**

**NEW Hydro, Inc.
116 State St.
Neshkoro, WI 54960**

Purple Loosestrife

On July 21 & August 4, 2000, NEW Hydro, Inc. (NEW) performed an inventory of purple loosestrife plants at the Oconto Falls Upper Project in Oconto County, Wisconsin. The method of inventory as approved and modified by Federal Energy Regulatory Commission (FERC) Order of November 19, 1999 was defined as follows:

After Purple Loosestrife has bloomed in mid July to early August, the inventory should be conducted using a boat to survey the impoundment above the dam and on foot or by boat below the dam. County wetland maps will be used to determine other areas where Purple Loosestrife could be found on lands owned by NEW within the Project Boundary. These areas will be surveyed on foot. A pair of binoculars should be used to search for the purple flowered spikes of the plant. When plants are located, the person(s) inventorying should get close enough to make a positive identification without disturbing the plants or the immediate area around the plants as this could cause them to spread. A GPS receiver will be used to establish a GPS coordinate for the location of the plants. If it is not possible to get close enough to establish an accurate location, an approximate location will be established with reference to an established GPS coordinate. The plant should be inventoried by marking and numbering the location on a lake map along with notes approximating size of plants, stand area, percent cover, stem density, plant density, and location with reference to established GPS coordinates. Photos and/or videotape will be taken of the largest occurrences.

Example:

#1 6' tall plants; 4' X 20'; 30% cover; 4 – 5 stems per plant; 4 plants; on shoreline N44° 52.9092' E88° 10.0000'; no photo

**#2 5' - 7' tall plants; 10' X 10'; 25% cover; 4 – 5 stems per plant; in marsh 50 feet bearing 25° from N44° 52.5092' E88° 10.0000'; photo
No. 1**

The area to be inventoried shall be the shoreline and lands owned by NEW within the Project Boundary as indicated on the Project Boundary map included as Exhibit G of NEW Hydro, Inc. Application For New License for the Oconto Falls Hydroelectric Project FERC Project #2523. The Project Boundary is shown as the water and shoreline of the impoundment from approximately 6000' upstream of the State Highway 32 bridge to approximately 500' downstream of the Project dam.

General Observations:

For purple loosestrife, the Oconto Falls Upper Project Boundary was divided into four distinctly different areas; the tailrace (from the dam to 500' immediately downstream of the dam on the east end of the impoundment), the main basin (from the dam to 2 miles upstream of the dam where the river narrows), the headwaters (from 2 miles upstream of the dam where the river narrows to the western point of the project boundary ~6,000 feet upstream of the Highway 32 bridge), and outlying project owned lands.

The tailrace was surveyed by foot and was found to contain no visible purple loosestrife plants.

The main basin was surveyed by boat and was found to contain no visible purple loosestrife plants.

The headwaters were surveyed by boat. Two occurrences of purple loosestrife plants were observed in this area and are noted on the lake map and survey comments at the end of this report. One of these occurrences appears to be on project owned land and is so noted.

The outlying project owned lands were first researched using aerial wetland maps to determine the areas conducive to purple loosestrife growth. These areas were then surveyed by foot and were found to contain no visible purple loosestrife plants.

During the inventory, an 8mm camcorder was used to document both occurrences of purple loosestrife as noted in the survey comments at the end of this report.

Eurasian Watermilfoil

On July 21 & August 4, 2000, NEW Hydro, Inc. performed an inventory of Eurasian watermilfoil plants at the Oconto Falls Upper Project in Oconto County, Wisconsin. The method of inventory as approved and modified by FERC Order of November 19, 1999 was defined as follows:

After Eurasian watermilfoil has developed in mid July to early August, the inventory should be conducted by boating transects in the impoundment above and below the dam. Number and locations of transects will be determined at the time of the first inventory and appropriately marked on the inventory lake map. A GPS receiver will be used to establish GPS coordinates for the beginning and endpoints of the transects. The person(s) inventorying should visually search areas with depths of 12 feet or less for the dense mats of the plants on and below the water surface. When plants are located, the person(s) inventorying should get close enough to make a positive identification without disturbing the plants or the immediate area around the plants as this could cause them to spread. If necessary, a sample may be taken for identification later. The plant should be inventoried by marking and numbering the location on a lake map along with notes approximating area that they cover, perimeter of bed, mat density, overall mat thickness, and location with reference to the GPS coordinates. Photos and/or videotape will be taken of the largest occurrences.

Example:

#1 40' X 20'; 3' depth; perimeter N44° 52.8925' E88° 10.0000' N44° 52.8860' E88° 10.0000', N44° 52.8860' E88° 09.9953', N44° 52.8925' E88° 09.9953'; 50% density; 3' thick; no photo

#2 8' X 10'; 10' depth; N44° 52.9008' E88° 10.0000', N44° 52.8995' E88° 10.0000', N44° 52.8995' E88° 09.9980', N44° 52.9008' E88° 09.9980'; 25% density; 8' thick; photo No. 1

The area to be inventoried shall be that within the Project Boundary as indicated on the Project Boundary map included as Exhibit G of NEW Hydro, Inc. Application For New License for the Oconto Falls Hydroelectric Project FERC Project #2523. The project boundary is shown as the water and shoreline of the impoundment from approximately 6000' upstream of the State Highway 32 bridge to approximately 500' downstream of the Project dam.

General Observations:

For Eurasian watermilfoil, the Oconto Falls Upper Project Boundary was divided into three distinctly different areas; the tailrace (from the dam to 500' immediately downstream of the dam on the east end of the impoundment), the main basin (from the dam to 2 miles upstream of the dam where the river narrows), and the headwaters

(from 2 miles upstream of the dam where the river narrows to the western point of the project boundary ~6,000 feet upstream of the Highway 32 bridge).

Water clarity at the Project at the time of the survey was limited to 1' – 3'. It was determined at that time to use a 14" wide garden rake (throw rake) with a rope attached to retrieve weed samples in a more thorough and consistent manner.

The *main basin* was inventoried first followed by the *headwaters* and, finally, the *tailrace*.

The tailrace was surveyed visually and with the use of a throw rake. No Eurasian watermilfoil plants were found.

The main basin was surveyed visually and with the use of a throw rake. Eight transects were established in this area with sample points at 1.5', 5', 10', and 15' depths. Each sample point of each transect was an 8' circle divided into quadrants. Each quadrant was sampled using the throw rake. If the teeth of the rake contained less than 50% Eurasian watermilfoil, a rating of 1 was assigned, and if 50% or more, a rating of 2 was assigned. In addition, areas of weed growth were visually searched while skirting the perimeter of weed beds and shoreline.

No weeds of any kind were detected at depths greater than 10'. Only one occurrence of Eurasian watermilfoil was detected at the 10' depth. A bright green 6" stem from the top of a plant was retrieved in quadrant no. 1 of transect no. 1. This was the only plant matter retrieved at this sample point and could have been a segment broken off from a mat upstream by boat traffic as all other plant matter retrieved from this depth was mostly decomposed.

No other Eurasian watermilfoil was detected at depths greater than 5'. Those occurrences at 5' depth and less were easily identified without the use of dredging techniques as the plants had grown to the surface and most had reddish tops. Four mats containing Eurasian watermilfoil were identified within the project boundary. All four mats were discovered using the visual search method. All of these mats were interspersed with other types of weeds and all of the mats had a Eurasian watermilfoil density of less than 20% as noted in the survey comments at the end of this report.

The headwaters were surveyed visually and with the use of a throw rake. No Eurasian watermilfoil plants were found.

During the inventory, an 8mm camcorder was used to document three of the four mats of Eurasian watermilfoil as noted in the survey comments at the end of this report.

Purple Loosestrife Survey

Project: Oconto Falls Upper #2523
 Date: 7/21/2000 & 8/4/2000
 Crew: RAL & CTM

Datum: WGS 84
 Page: 1 of 1

Sighting #	GPS point	Lattitude	Longitude	Plant Height	Stand Area	Comments
1	66	N44°53.0397'	W088°13.7630'	4' - 6'	~50' x 20'	Located ~30 yards bearing 0° (north) of GPS point on the north side of a marshy slough. Appears to be on a snowmobile trail, as snowmobile trail signs are on either side of slough opening into the river channel. ~30 - 50 plants with 1 - 10 stems per plant. The plants cover ~20% - 30% of the stand area. There is also one 4' tall single stem plant located ~10 yards, one 4' tall single stem plant located ~20 yards, and three 4' - 6' tall 1 - 5 stems per plant located ~50 yards all bearing 270° (west) of the GPS point on the west side of the slough. These plants are all located on project owned lands. This occurrence recorded on video tape.
2	67	N44°52.8626'	W088°14.9756'	4' - 6'	~10' x 10'	Located ~30 yards south of GPS point on the south side of a marshy slough located directly west of the HWY 32 wayside boat landing. ~5 plants with 5 - 15 stems per plant. The plants cover ~75% of the Stand Area. This occurrence recorded on video tape.

Eurasian Watermilfoil Survey - Transects

Project: Oconto Falls Upper #2523

Datum: WGS 84

Date: 7/21/2000 & 8/4/2000

Page: 1 of 1

Crew: RAL & CTM

1<50%	1<50%	1<50%	1<50%
2≥50%	2≥50%	2≥50%	2≥50%

Transect #	Depth	GPS point	Latitude	Longitude	Quad 1	Quad 2	Quad 3	Quad 4	Rating
1	1.5	9	N44°52.7195'	W088°09.4319'	0	0	0	0	0
	5	10	N44°52.7343'	W088°09.4323'	0	0	0	0	0
	10	11	N44°52.7684'	W088°09.4185'	1	0	0	0	1
	12	12	N44°52.7885'	W088°09.4102'	0	0	0	0	0
2	1.5	13	N44°52.6616'	W088°09.2612'	0	0	0	0	0
	5	14	N44°52.7357'	W088°09.2024'	0	0	0	0	0
	10	15	N44°52.7716'	W088°09.1844'	0	0	0	0	0
	15	16	N44°52.7818'	W088°09.1873'	0	0	0	0	0
3	1.5	17	N44°52.6085'	W088°09.1567'	0	0	0	0	0
	5	18	N44°52.6269'	W088°09.1521'	0	0	0	0	0
	10	19	N44°52.6540'	W088°09.1324'	0	0	0	0	0
	5	20	N44°52.6842'	W088°09.1117'	0	0	0	0	0
	10	21	N44°52.7166'	W088°09.0910'	0	0	0	0	0
	15	22	N44°52.7347'	W088°09.0827'	0	0	0	0	0
4	1.5	23	N44°52.5970'	W088°09.0412'	0	0	0	0	0
	5	24	N44°52.6102'	W088°09.0244'	0	0	0	0	0
	10	25	N44°52.6183'	W088°08.9994'	0	0	0	0	0
	15	26	N44°52.6253'	W088°08.9984'	0	0	0	0	0
5	1.5	27	N44°52.8430'	W088°09.0258'	1	1	1	1	4
	5	28	N44°52.8408'	W088°09.0274'	0	0	0	0	0
	10	29	N44°52.8383'	W088°09.0359'	0	0	0	0	0
	15	30	N44°52.8271'	W088°09.0714'	0	0	0	0	0
6	1.5	37	N44°52.8919'	W088°09.2443'	0	0	0	0	0
	5	38	N44°52.8890'	W088°09.2434'	0	0	0	0	0
	10	39	N44°52.8808'	W088°09.2402'	0	0	0	0	0
	15	40	N44°52.8289'	W088°09.2018'	0	0	0	0	0
7	1.5	41	N44°52.8450'	W088°09.4266'	0	0	0	0	0
	5	42	N44°52.8420'	W088°09.4280'	0	0	0	0	0
	10	43	N44°52.8376'	W088°09.4237'	0	0	0	0	0
	15	44	N44°52.8278'	W088°09.4233'	0	0	0	0	0
8	1.5	45	N44°52.7965'	W088°09.6999'	0	0	0	0	0
	5	46	N44°52.7952'	W088°09.6999'	0	0	0	0	0
	10	47	N44°52.7887'	W088°09.6960'	0	0	0	0	0
	15	48	N44°52.7474'	W088°09.6777'	0	0	0	0	0

Eurasian Watermilfoil Survey - Mat Descriptions

Project: Oconto Falls Upper #2523 Datum: WGS 84
 Date: 7/21/2000 & 8/4/2000 Page: 1 of 1
 Crew: RAL & CTM

Mat #	Depth	GPS point	Latitude	Longitude	Comments
1	0' - 5'	31	N44°52.7679'	W088°08.9863'	Located from immediately on the east side of the swimming beach to boat launch docks to the east. Mat extends from shore to ~20' out from shore. Mat is interspersed with other weeds. Total Mat density is ~50% - 75% of which ~20% - 30% is Eurasian Watermilfoil. This mat recorded on video tape.
		32	N44°52.7729'	W088°08.9940'	
		33	N44°52.7892'	W088°09.0109'	
2	0' - 5'	34	N44°52.8133'	W088°09.0233'	Located from immediately on the west side of the swimming beach to where HWY 22 meets the lakeshore to the east. Mat extends from shore to ~20' out from shore. Mat is interspersed with other weeds. Total Mat density is ~50% - 75% of which ~20% - 30% is Eurasian Watermilfoil. This mat recorded on video tape.
		35	N44°52.8286'	W088°09.0265'	
		36	N44°52.8437'	W088°09.0283'	
3	2' - 5'	49	N44°52.8465'	W088°09.9786'	Located on north shore ~550 yards upstream from the boat landing in the park on the south side of the impoundment in Oconto Falls. Mat is narrow ~10' - 20' wide and runs parallel to shore in the 2' - 5' depth range. Mat is interspersed with other weeds. Total Mat density is ~10% - 20% of which ~15% - 20% is Eurasian Watermilfoil.
		50	N44°52.8541'	W088°10.0106'	
		51	N44°52.8613'	W088°10.0369'	
		52	N44°52.8675'	W088°10.0597'	
		53	N44°52.8805'	W088°10.0931'	
		54	N44°52.8952'	W088°10.1251'	
		55	N44°52.9184'	W088°10.1610'	
56	N44°52.9358'	W088°10.1870'			
4	4' - 5'	57	N44°53.0944'	W088°10.4541'	Located in center of river ~1400 yards upstream from the West Side Park boat landing on the south side of the impoundment in Oconto Falls. Mat is ~750' x ~200' and is in the center of the river. Mat is interspersed with other weeds. Total Mat density is ~75% - 80% of which ~10% is Eurasian Watermilfoil. It should also be noted that only the downstream half of the Mat appeared to contain Eurasian Watermilfoil. This mat recorded on video tape.
		58	N44°53.1284'	W088°10.4607'	
		59	N44°53.1601'	W088°10.4738'	
		60	N44°53.2086'	W088°10.5103'	
		62	N44°53.1968'	W088°10.5389'	
		63	N44°53.1701'	W088°10.5475'	
		64	N44°53.1220'	W088°10.5007'	
65	N44°53.1081'	W088°10.4868'			

LARGE-FORMAT IMAGES

One or more large-format images (over 8 1/2" X 11") go here.
These images are available in FERRIS at:

For Large-Format(s):

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File Date: 8-18-03 Docket No.: P-2523

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Set No.: 1 of 1

Number of page(s) in set: 3