



North American Hydro Holdings, Inc. — Plant Operations:
116 State Street, P.O. Box 187, Neeshkoro, WI 54980 USA
Tel 920-293-4628 Fax 920-293-8057 Email nah@nahydro.com Web www.nahydro.com

Engineering & Manufacturing:
8310 Technology Drive, Weston, WI 54478 USA
Tel 715-359-0209 Fax 715-359-1049 Email acholfield@nahydro.com Web www.nahydro.com

February 9, 2007

ORIGINAL

2007 FEB 16 P 2:45

RECEIVED
FEB 16 2007

The Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

P-2523-043

**Re: Oconto Falls Upper, Project No. 2523, N.E.W. Hydro, Inc.
Submittal of Purple Loosestrife/Eurasian Watermilfoil Inventory for Year 2006**

Dear Secretary:

Please find enclosed an original and 8 copies of the Oconto Falls Upper, Project No. 2523 Purple Loosestrife Inventory/Eurasian watermilfoil Inventory for 2006. Copies of the inventory have been sent to the Wisconsin Department of Natural Resources (WIDNR) and the US Fish & Wildlife Service (USFWS) and no comments have been received.

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

Sincerely,
NORTH AMERICAN HYDRO, INC.

FOR

Charles Alsberg
Executive Vice President

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

07-02-09 RAL OFUP 2006 loosestrife-milfoil survey to FERC.doc

**Oconto Falls Upper Project Purple Loosestrife & Eurasian Watermilfoil Inventory
August 19, August 23, & August 24, 2006
FERC Project #2523 Article 407**

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

Purple Loosestrife

On August 19, 2006, August 23, 2006, and August 24, 2006, 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 on 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. Five 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.

Sighting #1 (located on project owned land) was observed in 2000, 2001, 2002, 2003, 2004, and 2005 and appears not to have spread. In 2002 seed heads on three of the plants nearest the main river were removed, bagged, and burned to reduce possibility of spreading. In 2003, a permit to spray this sighting with an herbicide was acquired from the Wisconsin Department of Natural Resources and these plants were sprayed on August 24, 2003. On August 25, 2003 (more than 24 hours later) a number of the plants showed signs of stress. In 2004, a permit to spray this sighting with an herbicide was acquired from the Wisconsin Department of Natural Resources and these plants were sprayed on August 6, 2004. The amount of mature plants was noticeably reduced from the 2003 treatment although some of the reduction may have been attributed to higher than normal water levels and cooler temperatures throughout the spring and summer. It should also be noted that less mature plants appeared to have been browsed upon by animals. In 2005, a permit to spray this sighting with an herbicide was acquired from the Wisconsin Department of Natural Resources and these plants were sprayed on August 17, 2005. The amount of mature plants was about the same as during the 2004 treatment. It should also be noted that a few mature plants appeared to have insect damage such as that produced by *Gallerucella* beetles. In 2006, a permit to spray this sighting with an herbicide was acquired from the Wisconsin Department of Natural Resources and these plants were sprayed on August 23, 2006. The amount of mature plants was noticeably less than during the

2005 treatment. No plants appeared to have insect damage, such as that produced by *Gallerucella* beetles, as they had in 2005.

Sighting #2 was observed in 2000, 2001, 2002, 2003, 2004, 2005, and 2006 and appears to have reduced in density considerably since 2005. It should be noted that in 2006, the lower portion of the remaining plants appeared to have insect damage such as that produced by *Gallerucella* beetles.

Sighting #3 was first observed in 2001 and in 2002 and 2003 seed heads on all of these plants were removed to reduce possibility of spreading. In 2004, no plants were observed, but in 2005 they had returned. Seed heads were removed again in 2005. In 2006, no plants were observed at this location.

Sighting #4 was observed, pulled, and burned in 2001 and was no longer present in 2002, 2003, 2004, 2005, or 2006.

Sighting #5 was observed in 2002, 2003, 2004, and 2005 and appears not to have spread. In 2005, a more accurate inventory was performed of this sighting. In 2006, the number of plants appeared to have been reduced and all plants were pulled.

Sighting #6 was observed in 2002, 2003, 2004. In 2002, 2003, and 2004, seed heads on all of these plants were removed to reduce possibility of spreading. In 2005, no plants were observed at this location. In 2006, two plants were once again observed and were pulled.

Sighting #7 was observed in 2005 and was pulled and destroyed. In 2006, no plants were observed at this location.

Sighting #8 was observed in 2005 and was pulled and destroyed. In 2006, no plants were observed at this location.

Sighting #9 was observed in 2006 and was pulled and destroyed.

Sighting #10 was observed in 2006 and was pulled and destroyed.

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 on foot and were found to contain no visible purple loosestrife plants.

During the inventory, a video camcorder or digital camera was used to document new occurrences of purple loosestrife as noted in the survey comments at the end of this report.

Eurasian Watermilfoil

On August 19, 2006, August 23, 2006, and August 24, 2006, 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' – 2'. It was determined at that time to use a 14" wide garden rake with a 5.5' handle for shallow areas and a 14" wide garden rake attached to an 18' aluminum pole for deeper areas. In the past, a throw rake (garden rake with a rope attached) was used to retrieve weed samples, but the 18' handle gives better control and cuts down on sampling time. For 2000 and 2001 surveys, no weed growth of any kind was retrieved from waters deeper than 10', so sampling at the 15' depth was discontinued.

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 rake mounted on an 18' aluminum pole. No Eurasian watermilfoil plants were found.

The main basin was surveyed visually and with the use of a 14" wide garden rake with a 5.5' handle for shallow areas and a 14" wide garden rake attached to an 18' aluminum pole for deeper areas. Eight transects were established in 2000 in this area with sample points at 1.5', 5', and 10' depths. Each sample point of each transect was an 8' circle divided into quadrants. Each quadrant was sampled using one of the rakes. 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 weed samples of any kind were detected at the 10' depth. On the sampling date, boat traffic was medium and observations of floating segments of Eurasian watermilfoil were common. Special attention was paid to each of the boat landings.

At the northeast boat landing near the hydroelectric plant, Eurasian watermilfoil plants were found growing from the bottom near the landing and docks to the extent that a designation of mat #9 was assigned. The wind was blowing into this shore and many floating strands were observed here. This was much more than any other previous year. Eurasian watermilfoil was observed on the apron of the landing.

The north boat landing immediately east of the north swimming beach had a few floating strands of Eurasian watermilfoil near the landing with no plants appearing to be growing from the bottom. There appeared to be a few strands of Eurasian watermilfoil on the apron of the landing.

The boat landing at the West Park is within mat #5 and a few Eurasian watermilfoil plants were found floating around the landing and dock, and a few were observed on the apron of the landing.

No Eurasian watermilfoil was detected at sampling locations with 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.

In past years, some sampling points did not yield any Eurasian watermilfoil plants, although there may have been some plants floating on the surface and/or growing from the bottom within 25' of the sampling point. In 2002, a column was added to the survey sheet at the end of this report to show these observations.

Eleven mats containing Eurasian watermilfoil were identified within the project boundary of which mat #1, #2, #3, and #4 were first identified in the 2000, mat #5 was first identified in 2001, mat #6 and #7 were first identified in 2003, mat #8 was first identified in 2005, and mat #9, #10, and #11 were identified in 2006. All eleven mats were discovered using the visual search method. All of these mats were interspersed with other types of plants and all of the mats had Eurasian watermilfoil densities as noted in the survey comments at the end of this report. Mats #1 through #10 are located in the *main basin* while mat #11 is located in the *headwaters*.

Mats #1 and #2, from their discovery in 2000, had remained the same size and density through 2003. They had decreased in size in 2004 and in 2005 were not visible at all. Both mats have reappeared in 2006. During the 2006 survey, the wind was blowing into this shoreline and many floating segments were also observed at these locations.

Mat #3 appears to have remained the same size, but has increased in density since 2005. From its discovery in 2000, it increased in size and density through 2003. In 2004, a drastic reduction in density was observed while its size remained the same. In 2005, its density reduced further to where it could be considered the same as when it was first observed in 2000 while the size remained the same size as in 2004.

Mat #4 appears to have remained the same size, but has increased in density since 2005. From its discovery in 2000, it increased in size and density through 2003. In 2004, a drastic reduction in density was observed while its size remained the same. In 2005, its density reduced further to where it could be considered the same as when it was first observed in 2000 while the size remained the same size as in 2004.

Mat #5 has remained the same size, but has increased in density since 2005. From its discovery in 2001, it increased in size and density through 2003. In 2004, a drastic reduction in density was observed while its size remained the same. In 2005, its density reduced further to where it could be considered the same as when it was first observed in 2000 while the size remained the same size as in 2004.

Mat #6 has increased in size and density in 2006. From its discovery in 2003, it reduced in density and remained the same size in 2004. In 2005, its size and density remained the same.

Mat #7 was first observed in 2004, was not visible in 2005, and has reappeared in 2006.

Mat #8 was new in 2005 and has increased in size and density in 2006.

Mat #9 is new in 2006. Plants had been observed here in previous years, but never enough to grant mat status.

Mat #10 is new in 2006 and has a high density of Eurasian watermilfoil.

The headwaters were surveyed visually and with the use of a 14" wide garden rake with a 5.5' handle. One mat was observed in this part of the project boundary.

Mat #11 is new in 2006 and has a high density of Eurasian watermilfoil.

Observations of individual plants are the furthest upstream since surveys began in 2000 and have reached a point at N44°53.152' W88°11.755' (Datum: WGS84) which is ~2.7 miles upstream from the dam and ~0.7 miles downstream from the Larson Bridge. Plants had not been previously observed further upstream than a point at N44°53.303' W88°10.791' (Datum: WGS84) which is ~1.9 miles upstream from the dam and ~1.5 miles downstream from the Larson Bridge.

Eurasian watermilfoil weed densities, overall, increased noticeably from 2005 to 2006 and seem to be at its highest density and are located furthest upstream since surveys began in 2000.

Purple Loosestrife Survey

Project: Oconto Falls Upper #2523
 Date: 8/19/06 & 8/23/06
 Crew: RAL & CTM

Datum: WGS 84

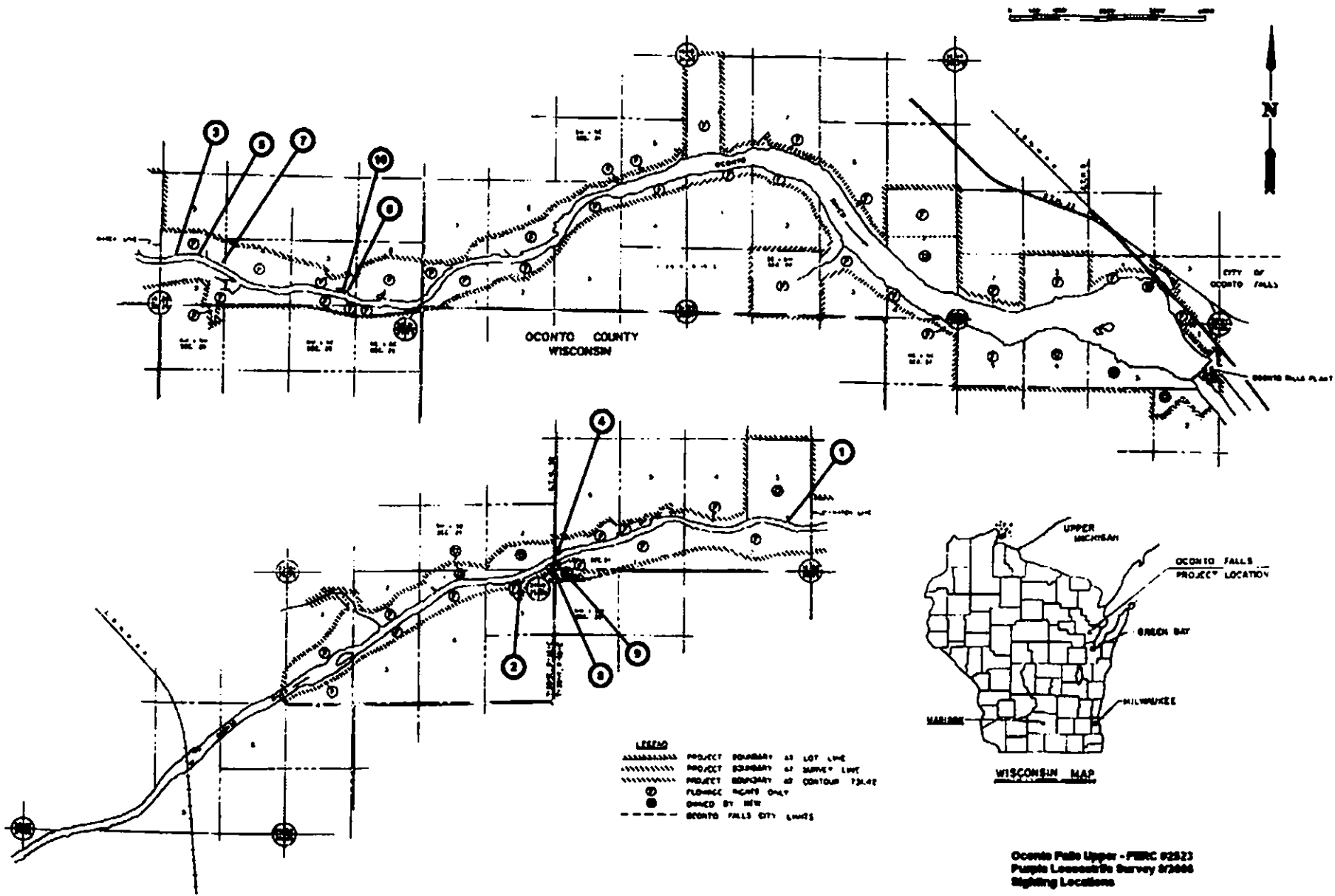
Sighting #	GPS point	Latitude	Longitude	Plant Height	Stand Area	Comments
1	66	N44°53.0397'	W088°13.7630'	4' - 6'	~100' x 20'	Located ~30 yards bearing 0° (north) of GPS point on the north side of a marshy slough. Appears to be on a snowmobile trail, as snowmobile trail signs are on either side of slough opening into the river channel. This occurrence discovered in 2000. There are 25 plants with 1 - 8 stems per plant. The plants cover ~5% - 10% of the stand area. There is also one 5' tall 5 stems plant located ~50 yards bearing 270° (west) of the GPS point on the west side of the slough. A 5' tall 5 stem plant is located ~200' upstream on the shoreline of the main river channel and a 4' tall single stem plant was located ~30' downstream on the shoreline of the main river channel from the waypoint. These plants are all located on project owned lands. This occurrence recorded on video tape in 2000. Seed heads of 3 plants nearest main river channel removed in 2002, all plants sprayed with herbicide in 2003, 2004, 2005, and 2006. NOTE: In 2005, few mature PL plants showed extensive leaf damage as if eaten by Galerucella beetles. Video taken of damaged plant.
2	67	N44°52.8626'	W088°14.9756'	4' - 6'	~40' x 5'	Located ~30 yards bearing 180° (south) of GPS point on the south side of a marshy slough located directly west of the HWY 32 wayside boat landing. This occurrence discovered in 2000. There are 2 plants with 5 - 8 stems per plant. The plants cover ~2% of the Stand Area. This occurrence recorded on video tape in 2000. No treatment in 2000, 2001, 2002, 2003, 2004, 2005, and 2006. NOTE: In 2006, all PL plants showed extensive leaf damage as if eaten by Galerucella beetles.
3	78	N44°53.012'	W088°13.614'	N/A	N/A	Located ~10 yards bearing 0° (north) of GPS point on the north side of the river. This occurrence discovered in 2001. This occurrence recorded on video tape in 2001. Seed heads removed in 2002 and 2003. No plants were visible in 2004. Plants reappeared in 2005, pulled, and destroyed. No plants visible in 2006.

Purple Loosestrife Survey

Project: Oconto Falls Upper #2523
 Date: 8/19/06 & 8/23/06
 Crew: RAL & CTM

Datum: WGS 84

Sighting #	GPS point	Latitude	Longitude	Plant Height	Stand Area	Comments
4	79	N44°52.943'	W088°14.809'	N/A	N/A	Located near the waters edge on the northeast side of the HWY 32 bridge. This occurrence discovered in 2001. This occurrence recorded on video tape in 2001. This plant was pulled and disposed in 2001 and was not present in 2002, 2003, 2004, 2005, or 2006.
5	178 267 268 269 270	N44°53.029' N44°53.059' N44°53.057' N44°53.056' N44°53.055'	W088°13.524' W088°13.549' W088°13.562' W088°13.578' W088°13.615'	4' 3' - 4' 3' - 4' 3' - 4'	1 plant 3 plants 2 plants 2 plants	Located on the edge of the far side of a slough ~30 yards - 60 yards northwest of waypoint 178. This occurrence discovered in 2002. In 2005, a more accurate inventory was performed of this sighting. All plants have 2 - 4 stems per plant. This occurrence was recorded on video tape in 2002. No treatment was performed in 2002, 2003, 2004, and 2005. All plants pulled in 2006.
6	179	N44°52.895'	W088°12.805'	4' - 5'	2 plants	Located ~10' due north of the waypoint on the bank. This occurrence discovered in 2002. One plant had 1 stems and the other had 5 stems. Seed heads removed in 2002, 2003, and 2004. No plants were visible in 2005. All plants pulled in 2006. This occurrence was recorded on video tape in 2002.
7	264	N44°53.024'	W088°13.439'	N/A	N/A	Located ~10' due north of the waypoint on the bank. This occurrence discovered in 2005. One plant had 3 stems. Plant was pulled and destroyed in 2005. No plants visible in 2006.
8	265	N44°53.024'	W088°13.439'	N/A	N/A	Located ~10' due south of the waypoint on the bank west of HWY 32 bridge. This occurrence discovered in 2005. One plant had 3 stems. Plant was pulled and destroyed in 2005. No plants visible in 2006.
9	120	N44°52.915'	W088°14.823'	3'	1 plant	Located ~10' due south of the waypoint on the bank east of HWY 32 bridge. This occurrence discovered in 2006. One single stem plant. Plant was pulled and destroyed in 2006.
10	116	N44°52.915'	W088°52.915'	4' - 5'	2 plants	Located ~10' due north of the waypoint. This occurrence discovered in 2006. Both plants had only one stem. Stand area was ~10' x 2'. Plants were pulled and destroyed in 2006.



Eurasian Watermilfoil Survey - Transects

Project: Oconto Falls Upper #2523
Date: 8/24/2006
Crew: RAL & CTM

Datum: WGS 84
Page: 1 of 1

Eurasian watermilfoil growing from bottom within 25' of sample point = #
 Eurasian watermilfoil floating within 25' of sample point = .

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	Within 25'
1	1.5	9	N44°52.7195'	W088°09.4319'	0	1	0	0	1	#*
	5	10	N44°52.7343'	W088°09.4323'	1	1	1	1	4	#*
	10	11	N44°52.7684'	W088°09.4185'	0	0	0	0	0	#*
2	1.5	13	N44°52.8616'	W088°09.2612'	0	0	0	0	0	#*
	5	14	N44°52.7357'	W088°09.2024'	2	2	1	1	6	#*
	10	15	N44°52.7716'	W088°09.1844'	0	0	0	0	0	
3	a 1.5	17	N44°52.8067'	W088°09.1417'	0	1	1	1	3	#*
	a 5	18	N44°52.8200'	W088°09.1400'	0	0	0	0	0	#*
	10	19	N44°52.8540'	W088°09.1324'	0	0	0	0	0	
	5	20	N44°52.8842'	W088°09.1117'	0	0	0	0	0	
	10	21	N44°52.7166'	W088°09.0910'	0	0	0	0	0	
4	1.5	23	N44°52.5970'	W088°09.0412'	1	1	0	1	3	#*
	5	24	N44°52.8102'	W088°09.0244'	0	0	0	0	0	
	10	25	N44°52.8183'	W088°08.9994'	0	0	0	0	0	
5	1.5	27	N44°52.8430'	W088°09.0258'	1	0	0	0	1	#*
	5	28	N44°52.8408'	W088°09.0274'	1	0	0	0	1	#*
	10	29	N44°52.8383'	W088°09.0359'	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	
7	b 1.5	41	N44°52.8467'	W088°09.4100'	1	0	0	0	1	#
	b 5	42	N44°52.8433'	W088°09.4100'	0	0	0	0	0	#
	b 10	43	N44°52.8400'	W088°09.4083'	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	

a offset ~75ft east from original transect due to fisherman fishing from shore - latitude and longitude reflect offset
 b offset ~75ft east from original transect due to willow tree fallen in water - latitude and longitude reflect offset

Eurasian Watermilfoil Survey - Mat Descriptions

Project: Oconto Falls Upper #2523 Datum: WGS 84
 Date: 8/19/2006
 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 is ~180' x 20' and extends out from shore in the 2' - 5' depth range. Mat is interspersed with other weeds. Total Mat density is ~20% - 40% of which ~5% - 20% is Eurasian Watermilfoil.
		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 is ~180' x 20' and extends out from shore in the 2' - 5' depth range. Mat is interspersed with other weeds. Total Mat density is ~20% - 40% of which ~5% - 20% is Eurasian Watermilfoil.
		35	N44°52.8286'	W088°09.0265'	
		36	N44°52.8437'	W088°09.0283'	
3	0' - 5'	180	N44°52.837'	W88°09.914'	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 ~2600' x 30' wide and runs parallel to shore in the 2' - 5' depth range. Mat is interspersed with other weeds. Total Mat density is ~10% - 30% of which ~1% - 20% is Eurasian Watermilfoil.
		181	N44°52.843'	W88°09.959'	
		49	N44°52.8465'	W088°09.9786'	
		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'	
		182	N44°52.964'	W88°10.217'	
		183	N44°52.984'	W88°10.230'	
184	N44°53.030'	W88°10.300'			
185	N44°53.094'	W88°10.386'			
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 ~2050' x ~200' and is in the center of the river. Mat is interspersed with other weeds. Total Mat density is ~50% - 70% of which ~1% - 80% is Eurasian Watermilfoil. Heaviest concentrations of Eurasian Watermilfoil are located on the upstream and downstream
		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'	

Eurasian Watermilfoil Survey - Mat Descriptions

Project: Oconto Falls Upper #2523 Datum: WGS 84
 Date: 8/19/2006
 Crew: RAL & CTM

Mat #	Depth	GPS point	Latitude	Longitude	Comments
		65	N44°53.1081'	W088°10.4868'	ends of the mat with lighter concentrations in between.
		249	N44°53.233'	W88°10.533'	
		250	N44°53.256'	W88°10.555'	
		251	N44°53.277'	W88°10.585'	
		252	N44°53.303'	W88°10.650'	
		253	N44°53.303'	W88°10.791'	
5	0' - 5'	71	N44°52.756'	W088°09.898'	Located from ~50' downstream (east) of the boat landing at the West Side Park on the south side of the impoundment in Oconto Falls to ~1100' upstream (west) of the boat landing. Eurasian Watermilfoil mat is formed on the outside edge of an existing mat of submergent weed growth in the 3' - 6' depth range. Mat is ~1400' x ~50'. Mat is interspersed with other weeds. Total Mat density is ~20% - 50% of which ~5% - 20% is Eurasian Watermilfoil. This mat was recorded on video tape in 2001.
		72	N44°52.743'	W088°09.859'	
		73	N44°52.735'	W088°09.810'	
		74	N44°52.720'	W088°09.750'	
		75	N44°52.715'	W088°09.702'	
		76	N44°52.723'	W088°09.673'	
		77	N44°52.728'	W088°09.643'	
6	2' -5'	238	N44°52.761'	W88°09.256'	Located east of the island in the impoundment ~600 yards east of the West Side Park boat landing on the south side of the impoundment in Oconto Falls. Mat is ~2100' x ~200' interspersed with other weeds. Total Mat density is ~30% - 70% of which ~5% - 80% is Eurasian Watermilfoil.
		239	N44°52.749'	W88°09.217'	
		80	N44°52.737'	W88°09.193'	
		81	N44°52.721'	W88°09.170'	
		82	N44°52.715'	W88°09.154'	
		83	N44°52.704'	W88°09.140'	
		84	N44°52.695'	W88°09.143'	
		85	N44°52.688'	W88°09.150'	
		86	N44°52.698'	W88°09.188'	
		87	N44°52.697'	W88°09.205'	
		88	N44°52.694'	W88°09.212'	
		89	N44°52.688'	W88°09.217'	
		90	N44°52.677'	W88°09.204'	
		91	N44°52.659'	W88°09.188'	
		92	N44°52.643'	W88°09.161'	
		93	N44°52.621'	W88°09.139'	
		94	N44°52.613'	W88°09.118'	
		95	N44°52.611'	W88°09.071'	

Eurasian Watermilfoil Survey - Mat Descriptions

Project: Oconto Falls Upper #2523 Datum: WGS 84
 Date: 8/19/2006
 Crew: RAL & CTM

Mat #	Depth	GPS point	Latitude	Longitude	Comments
		96	N44°52.604'	W88°09.042'	
		97	N44°52.600'	W88°09.027'	
		98	N44°52.593'	W88°09.018'	
7	0' - 5'	254	N44°53.042'	W88°10.468'	Located ~1250 yards upstream from the West Side Park boat landing on the south side of the impoundment in Oconto Falls. Mat is ~375' x ~40' and is interspersed with other weeds. Total Mat density is ~10% - 30% of which ~5% - 20% is Eurasian Watermilfoil.
		255	N44°53.007'	W88°10.425'	
		256	N44°52.996'	W88°10.411'	
8	2' - 5'	248	N44°52.745'	W88°09.483'	Located west of the island in the impoundment ~200 yards east of the West Side Park boat landing on the south side of the impoundment in Oconto Falls. Mat is ~600' x ~100' interspersed with other weeds. Total Mat density is ~5% - 50% of which ~5% - 10% is Eurasian Watermilfoil.
		257	N44°52.739'	W88°09.447'	
		258	N44°52.736'	W88°09.433'	
		259	N44°52.741'	W88°09.419'	
		260	N44°52.751'	W88°09.402'	
		261	N44°52.755'	W88°09.383'	
		262	N44°52.758'	W88°09.358'	
		263	N44°52.759'	W88°09.320'	
9	2' - 5'	99	N44°52.629'	W88°08.844'	Located at the east end boat ramp nearest the hydroelectric plant. Mat is ~75' x ~15'. Total Mat density is ~20 - 50% of which ~50% is Eurasian Watermilfoil.
		100	N44°52.628'	W88°08.835'	
		101	N44°52.627'	W88°08.829'	
10	2' - 5'	102	N44°53.343'	W88°10.790'	Located in the center of the river ~2200 yards upstream from the West Side Park boat landing on the south side of the impoundment in Oconto Falls. Mat is ~475' x ~125' and is in the center of the river. Mat is interspersed with other weeds. Total Mat density is ~50% - 70% of which ~20% - 80% is Eurasian Watermilfoil.
		103	N44°53.353'	W88°10.845'	
		104	N44°53.353'	W88°10.882'	
		105	N44°53.341'	W88°10.899'	
		106	N44°53.336'	W88°10.871'	
		107	N44°53.333'	W88°10.838'	
		108	N44°53.337'	W88°10.809'	
11	2' - 5'	109	N44°53.337'	W88°10.809'	Located ~2475 yards upstream from the West Side Park boat landing on the south side of the impoundment in Oconto Falls. Mat is ~1600' x ~300' and is on the south side of the river.
		110	N44°53.337'	W88°10.809'	
		111	N44°53.337'	W88°10.809'	

Eurasian Watermilfoil Survey - Mat Descriptions

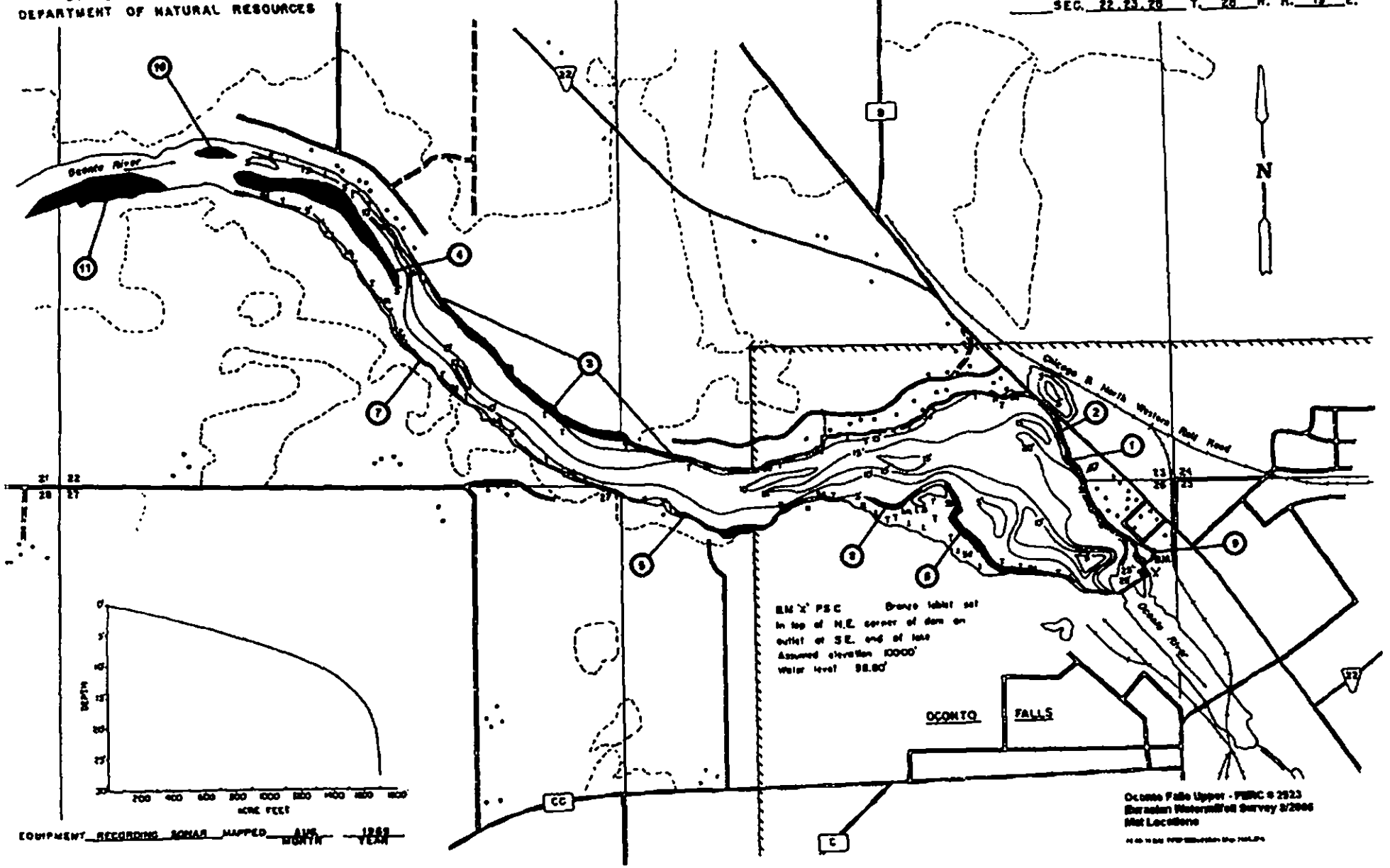
Project: Oconto Falls Upper #2523 Datum: WGS 84
 Date: 8/19/2006
 Crew: RAL & CTM

Mat #	Depth	GPS point	Latitude	Longitude	Comments
		112	N44°53.337'	W88°10.809'	Mat is interspersed with other weeds. Total Mat density is ~50% - 70% of which ~20% - 80% is Eurasian Watermilfoil.
		113	N44°53.337'	W88°10.809'	
		114	N44°53.337'	W88°10.809'	
		115	N44°53.337'	W88°10.809'	
		116	N44°53.337'	W88°10.809'	

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

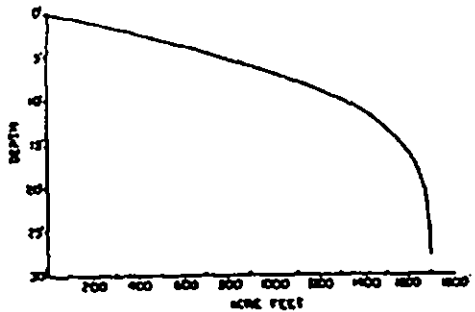
LAKE SURVEY MAP

OCONTO FALLS OCONTO
LAKE POND COUNTY
SEC. 22, 23, 28 T. 28 N. R. 19 E.



BM 2' PSC Bronze tablet set
in top of N.E. corner of dam on
outlet or S.E. end of lake
Assumed elevation 1000'
Water level 98.80'

Oconto Falls Upper - FERC # 2923
Barram Waterfall Survey 2/2006
Map Locations
11-10-10-000-000000-000000



EQUIPMENT RECORDING SONAR MAPPED WITH YEAR



North American Hydro Holdings, Inc. — Plant Operations:
116 State Street, P.O. Box 167, Neeshaw, WI 53060 USA
Tel: 920-293-4628 Fax: 920-293-4021 E-mail: plant@nahydro.com Web: www.na-hydro.com

Engineering & Manufacturing:
8310 Technology Drive, Weston, WI 53193 USA
Tel: 715-359-0202 Fax: 715-359-1010 E-mail: engmfg@nahydro.com Web: www.na-hydro.com

January 3, 2007

Mr. James Reyburn
Water Quality Biologist
Wisconsin Department of Natural Resources
Northeast Region Headquarters
P.O. Box 10448
2984 Shawano Ave.
Green Bay, WI 54307-0448

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

Jul FEB 22 AM 11:27

**Re: Oconto Falls (Upper) Project, No. 2523, N.E.W. Hydro, Inc.
Article 407. Purple Loosestrife & Eurasian Watermilfoil Inventory**

Dear Mr. Reyburn and Ms. Clemency:

Attached is a copy of our "Purple Loosestrife & Eurasian Watermilfoil Inventory" for 2006. This annual report has been prepared to comply with Article 407 of the project's federal hydropower license and is being filed with the Federal Energy Regulatory Commission.

We invite you to review and comment, but we respectfully request that any written response be provided to us within thirty (30) days from the date of this letter. Please contact me at 920-293-8514 if you wish to discuss or have any questions.

Sincerely,
NORTH AMERICAN HYDRO, Inc.

Rick Loeffler

Attachment