

Zebra mussel and spiny water flea veliger

Again in this year, the City Crew used two fine-mesh nets to collect lake samples for zebra mussel veliger and spiny water fleas. In 2012, the samples were collected in five locations on Shell Lake on 6/26, 7/17, 8/12, and 9/25. Once the samples were collected, they were sent to DNR for analysis. Again in 2012, all samples were negative. (see attached report)

Pipeline Corridor Inspections

Refer to reports enclosed in this section.

Invasive species Inspection Program

- a. Clean Water Clean Boats: Again this year with the assistance of a DNR grant, the City hired four inspectors who inspected trailered watercraft entering Shell Lake. They staffed our main landing 14 hours per day, seven days throughout the summer. Also, a volunteer inspection program was established in 2012 which expanded our inspection period beyond Labor Day. A power point presentation is enclosed in this section which gives the details of 2012. Over 200 hours were also spent inspecting at the Round Lake Access.
- b. Monitoring of Vegetative Beds and Landings for Eurasian Milfoil: Kris Larsen performed these inspections on 6/12, 7/28, 8/22, and 9/23. His written reports to the City indicate that he had boated across and inspected the weed beds of Shell Lake. He verified that there was no Eurasian milfoil found during these inspections. (note: Kris Larsen is an invasive species specialist with WI DNR).
- c. Adult Zebra Mussel Monitors: Dennis Anderson reported that no zebra mussels were found on his monitor in 2012.
- d. VHS Testing: The St. Croix Tribal Natural Resources Department completed this test in both 2010 and 2011 and found no apparent sign of the disease. They did not receive grant money to complete the testing in 2012.

Invasive Species Education Program

- A newsletter entitled "Help Keep Our Lakes Clean" (attached) was sent to 420 lakeshore owners on 5/23/12.
- The Shell Lake District Annual Meeting was held on 6/23/12 with Jamison Wendel, WI DNR Fisheries Biologist, as keynote speaker. He emphasized the importance of lakeshore restoration for fish management. Also, presentations and exhibits covered lakeshore buffers, invasive species, and storm water management projects completed by the City.
- The City continues to display and provide free brochures on lake management and protection.
- The Washburn County Register continues to print bi-weekly articles during the summer months which are written by our Clean Water Clean Boats Coordinator.

Purple Loosestrife

Refer to the attached report on our purple loosestrife inventory and actions taken in 2012.



Bradley Pederson <shelllakeadm@gmail.com>

FW: Results of Shell Lake Zebra Mussel Veliger & Spiny Water flea samples

1 message

Larsen, Kris H - DNR <Kris.Larsen@wisconsin.gov>
To: City of ShellLake <shelllakeadm@gmail.com>

Tue, Dec 11, 2012 at 10:04 AM

Hi Dave –

Here are the results of the Shell Lake sampling. The “-” indicates nothing detected, the “-,-” indicates nothing detected in those three samples. Hope this is a help.

-- Kris Larsen

From: Steinke, James A - DNR
Sent: Thursday, December 06, 2012 8:02 AM
To: Larsen, Kris H - DNR
Subject: RE: Results of Shell Lake veliger & spint samples

Hi Kris,

All the Shell Lake samples for 2012 were negative for the presence of veligers or water fleas. The spread sheets are attached.

James Steinke
Plymouth Lab
1155 Pilgrim Road
Plymouth, WI 53073
(920) 892-8756 x 3035
james.steinke@wisconsin.gov

Pipeline Corridor Inspection
June 26, 2012

Dave Vold inspected the pipeline corridor on May 26, 2012. He checked for invasive species and erosion problems. Everything looks good. The spring rains aided in the establishment of the vegetation. No erosion is evident. The City Crew has mowed the corridor between New Knapp Road and Highway 63.

Pipeline Corridor Inspection
July 30, 2012

Dave Vold inspected the corridor on July 30, 2012. No erosion problems were observed. Some spotted knapweed is coming that will need mowing by the City Crew.

Pipeline Corridor Inspection
August 30, 2012

Dave Vold inspected the corridor on August 30, 2012. Spotted knapweed continues to be a problem in some areas. The City Crew generally spot mows these spots.

Pipeline Corridor Inspection
September 28, 2012

Dave Vold inspected the corridor on September 28, 2012. It's been an extremely dry summer, however, the vegetative cover held up well so erosion continues to be controlled.

Shell Lake's YR 2012

Annual Report

Aquatic Invasive Species

Inspection Program

Submitted to Shell Lake
Council Dec 2012

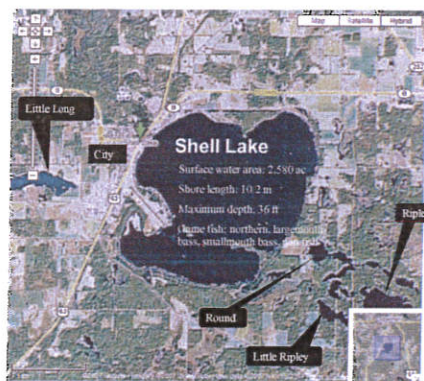
1

Inspection Program

- The Shell Lake City Council requires **trailed watercraft be launched and retrieved at the Class A access** (dock, ramp and other infrastructure) in Memorial Park.
- Inspectors, **trained under the WI Clean Boats - Clean Waters program**, inspect and monitor watercraft, lake access facilities for harmful Aquatic Invasive Species, are on duty 14 hours a day, 7 days a week, through out the summer.
- In YRs 2007, 2008, 2009, 2010, 2011, and 2012 the inspectors collected data using a **hand-held computer for data collection** and analysis.

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Committees Reporting to SL City Council / Lake District Board

- Technical Oversight Committee:** DNR, St. Croix Band, Shell Lake Council, Contested case participants, USGS, Voigt Intertribal Task Force, Great Lakes Indian Fish and Wildlife Commission, Yellow River Property Owners, Yellow Lakes and River Association, and Technical Experts
- Protection Advisory Committee:** Can include *anyone* with property or other interest in the District Up to 6 members - 3 year terms, meets ~ 4 times/year; Joan Quenan, Chair; Andy Oman, V. Chair; Jane Lokken, Secretary; Tom Scott; Jeri Bitney; Jane Pederson; Dan Harrington
- Staff Inspectors:** Coordinator: Joe Mikula; Inspectors: Mackenzie Curtis, Jared McQuade; Alternates: Ryan Mikula, Kristen Kraetke, Austin Shotts, Tanner Williams

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Shell Lake Inspection Data

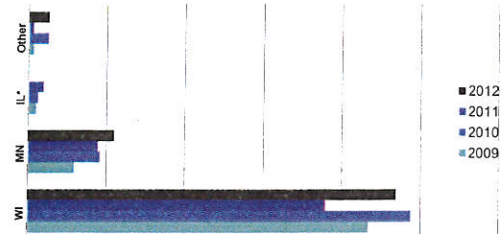
(submitted to WiDNR)

	YR04	YR06	YR07	YR08	YR09	YR10	YR11	YR12
Clean Inspections	1437	88	1302	99	3129	98	3180	99
Boats requiring cleaning	190	12	41	1	12	2	34	1
Eurasian water Milfoil confirmed	9	0.6	0	0	0	0	0	0
Total Inspections	2957	3346	3141	3214	2553	3078	2478	3018

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Boat License of Incoming Boats 2009, 2010, 2011, 2012



*No record for IL in 2012

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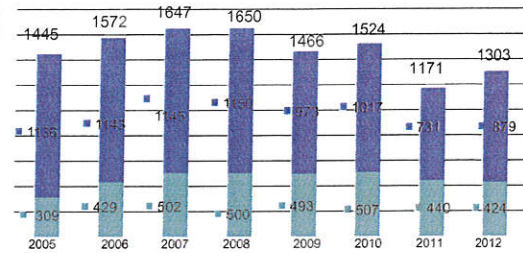
Inspections and Permits

	YR 06	YR 07	YR 08	YR 09	YR 10	YR 11	YR 12
Inspection logged:							
• Daily permits	989	1,731	969	990	1,063	765	832
• Annual permits	2,357	1,398	2,245	1,563	2,015	1,713	2,186
• Total Inspections	3,346	3,129	3,214	2,553	3,078	2,478	3,018
Permits Issued:							
• Daily	1,143	1,145	1,040	973	1,017	731	879
• Annual	429	502	507	493	507	440	424
	YR 06	YR 07	YR 08	YR 09	YR 10	YR 11	YR 12

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Number of Permits Sold



*Top numbers are total permits sales

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Lake Protection Fee Structure

	YR 2005	YR 2006	YR 2007	YR 2008	YR 2009	YR 2010	YR 2011	YR 2012
All launches (note 2)								
- Daily	\$7	\$4	\$5	\$5	\$5	\$5	\$5	\$5
- Annual	\$30	\$20	\$20	\$20	\$20	\$20	\$20	\$20
SL property owners:								
- Daily	\$5							
	YR 2005	YR 2006	YR 2007	YR 2008	YR 2009	YR 2010	YR 2011	YR 2012

Note 1: A citizens recommendation: Maintain current fee structure (YR 2007) in YR 2010. Establish a rapid reaction containment process and Note 2: In YR 2005, property owners had separate fee structure, shown under SL property owners.

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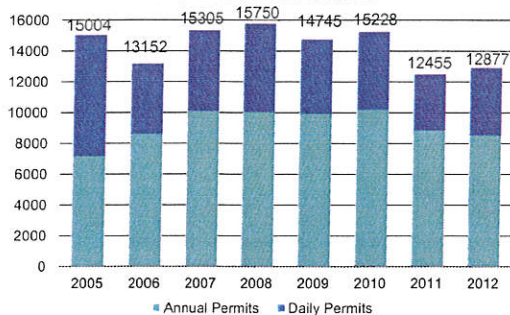
Suspect Watercraft Analysis 2012 Data

- Note: These questions were presented to each person launching a watercraft to help the inspectors identify suspect watercraft. (Total inspections equals 2478)
- Q: Did the watercraft come from a different body of water in the past 5 days?
 - No
 - Yes 360
 - Unknown
 - Total
- Q: Did the watercraft require cleaning?
 - No
 - Yes 107
 - Unknown
 - Total

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Permit Revenue



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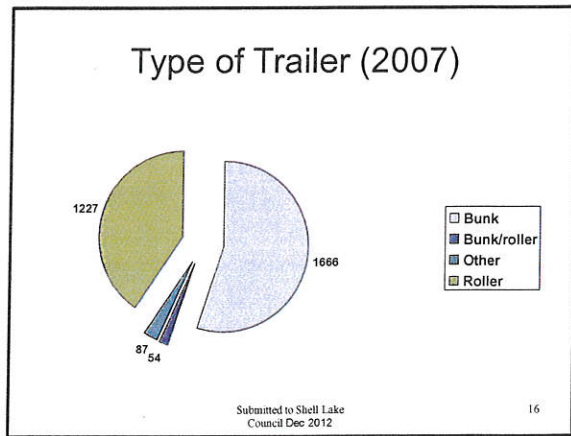
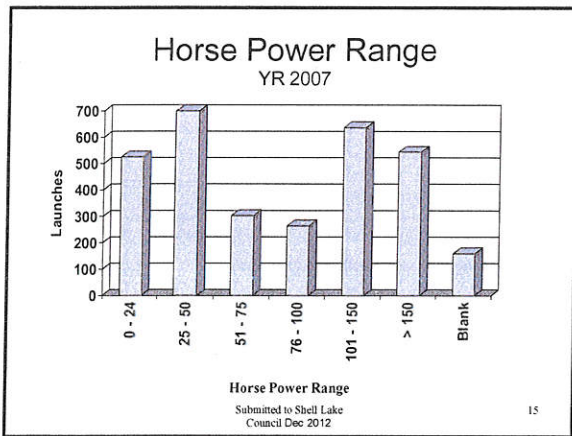
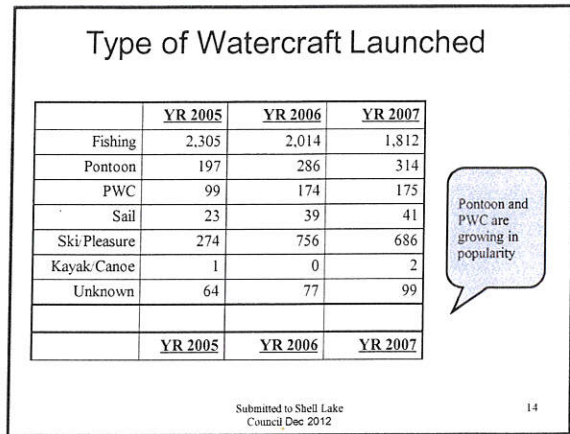
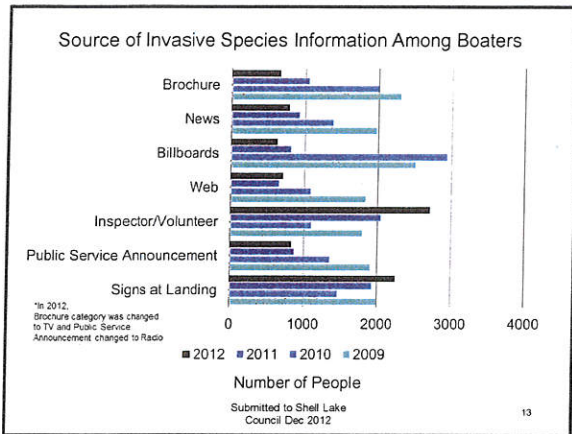
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Answers to Questions at the Landing 2012

Question	Yes	No
Are you aware of the law against launching your boat with vegetation on it?	2910 (97.5%)	76 (2.5%)
Did you check for vegetation and remove any that was there after using your watercraft last?	2886 (96.3%)	112 (3.7%)
Did you drain the water out of your watercraft?	2690 (89.8%)	306 (10.2%)
The last time you used live bait did you dispose of it properly?	193 (91%)	19 (9%)

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Budget and Actual For AIS Inspection Program

	YR 2006	YR 2007	YR 2008	YR 2009	YR 2010	YR 2011	YR 2012
	Actual	Actual	Actual	Actual	Actual	Actual	Actual
Expense	27,400	31,500	18,330	20,600	20,900	22,800	24,000
- DNR Grant	12,950	15,000	12,500	15,400	15,600	17,100	14,000
- City	14,450	16,500	5,830	5,200	5,300	5,700	10,000

Notes:
 1. City contribution is paid for mostly by launch fees and volunteer labor.
 2. Budget includes launch inspections, aquatic plant survey, purple loosestrife inventory and control, and lake testing for zebra mussel veligers & spiny water fleas.
 3. All dollars are used to implement a Rapid Response Plan as part of our lake protection campaign and maintain the launch site.

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- ### Observations
- The AIS program has been operational for 10 years and seems to gain greater public acceptance each year. Remarkably, there has been no Eurasian Water Milfoil detected on watercraft in the past 6 years.
 - The public is becoming more aware of AIS and the potential damage it can cause in the lake.
 - Using a hand held computer (PALM), for data collection, analysis and transfer is easily done once a form has been developed.
 - The project provided an element of public education by distributing an information brochure and map of the lake.
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Milestones

- **YR 2002**
 - Organized volunteers and began education program supporting Clean Boats/Clean Lakes program
- **YR 2003**
 - Created a part time position of inspector / supervisor at the launch area
 - Built the educational kiosk next to the launch ramp.
 - 1300 watercraft inspected
- **YR 2004**
 - AIS Control Grant #1 received from WIDNR (Feb – Dec)
 - Hired a part time supervisor / inspector (May - Sep)
 - Used volunteers for watercraft inspection (May – Sep)
 - 1636 watercraft inspected

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Milestones

- **YR 2005**
 - AIS Control Grant #2 received from WIDNR (Feb – Dec)
 - Hired a part time supervisor / inspector (May - Sep)
 - Hired three part time inspectors (May – Sep)
 - Initiated launch fees gross revenue \$15,004; (\$5/7 daily, \$20/30 annual)
 - Received a grant to determine if a wash station would be feasible
 - 2963 watercraft inspected; 1445 permits issued
 - Six Eurasian Milfoil found; cleaned 136 suspect boats before launch
- **YR 2006**
 - AIS Control Grant #3 received from WIDNR (Feb – Dec)
 - Hired a part time supervisor / inspector (May - Sep)
 - Hired three part time inspectors (May – Sep)
 - Launch fees gross revenue \$13,150; (\$4 daily, \$20 annual)
 - Constructed an inspectors shelter
 - Received \$850 donation from POOL organization
 - 3346 watercraft inspected; 1572 permits issued
 - Zero Eurasian Milfoil found; cleaned 41 suspect boats before launch
 - First citation issued to individual who refused to pay the launch fee (fined about \$350)

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Milestones

- **YR 2007**
 - Mayor sent a letter of appeal to property owners requesting they demonstrate their support of the Launch Permit requirements by buying an annual permit.
 - Received an AIS Grant in support of the inspection program
 - Award to study the feasibility of collecting inspectors data using a hand-held computer
 - Completed second year of Zero EWM detection
- **YR 2008**
 - Mayor sent letter to all property owners asking them to support the inspection program, eradicate purple loosestrife on their property and maintain a natural shore line.
 - Received an AIS Grant in support of the inspection program
 - Initiated training video for AIS Grant inspectors data using a hand-held computer
 - Completed third year of Zero EWM detection

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Milestones

- **YR 2009**
 - Mayor sent letter to all property owners asking them to support the inspection program, eradicate purple loosestrife on their property and maintain a natural shore line.
 - Received AIS Grant for three years (2009-2011)
 - Completed fourth year of zero EWM detection
- **YR 2010**
 - Completed fifth year of zero EWM detection
 - Mayor sent letter to all property owners asking them to support the inspection program, eradicate purple loosestrife on their property and maintain a natural shore line.
 - Utilized second year of AIS grant (2009-2011)
- **YR 2011**
 - Completed sixth year of zero EWM detection
 - Mayor sent letter to all property owners asking them to support the inspection program, eradicate purple loosestrife on their property and maintain a natural shore line.
 - Utilized third year of AIS grant (2009-2011)
 - Approved for new three year grant (2012-2014)

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Milestones

- **YR 2012**
 - Monthly monitoring in the summer months showed no indication of Eurasian Water-Milfoil, Zebra Mussel, or Spiny Water Fleas.
 - New signs were installed in the kiosk at the main landing.
 - New AIS signs were installed at the class B landing.
 - New iPod data collection system installed.
 - A volunteer inspection program was established to inspect boats after labor day.
 - All lakeshore property owners were sent a letter entitled "Keep Our Lake Clean."
 - Utilized first year of AIS Grant (2012-2014).

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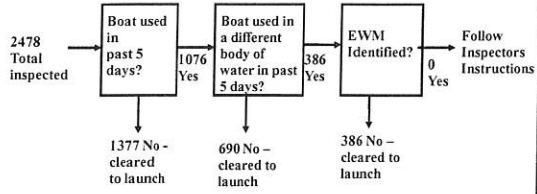
In addition to the AIS Inspection Program, the City is

- **Zebra Mussel Veligers and spiny water fleas**
 - Monitoring the lake every month during the summer for zebra mussel veligers and spiny water fleas. A fine-mesh screen is pulled through the water in five locations and sent to DNR for analysis. Up to and including 2012, nothing has been detected.
- **Eurasian Water-Milfoil**
 - Nothing detected during monthly inspections by DNR.
- **Purple Loosestrife**
 - Inventorying Purple Loosestrife infestations within its corporate boundaries. When found on private property, the land owners were notified. When found on City property, the City crew eradicates it.

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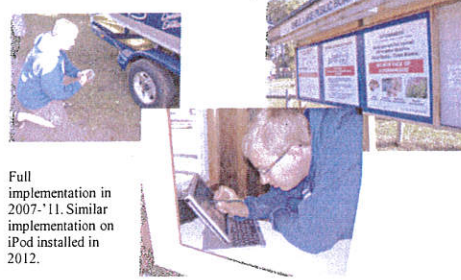
Responses to Key Questions that Identify Suspect Boats 2011



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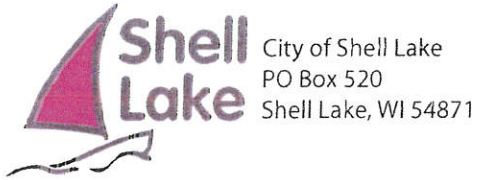
Data Collection using Hand Held Computer



Full implementation in 2007-'11. Similar implementation on iPod installed in 2012.

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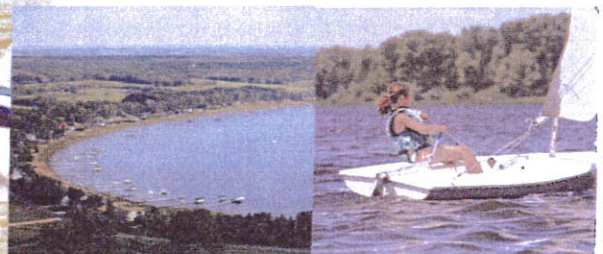


Shell Lake District Annual Meeting



June 23, 2012, 8:30 am - 10:30am

Shell Lake Community Center



8:30 am - Coffee, rolls, display exhibits, and conversation

9:00am - Presentations begin

Featured presentation:

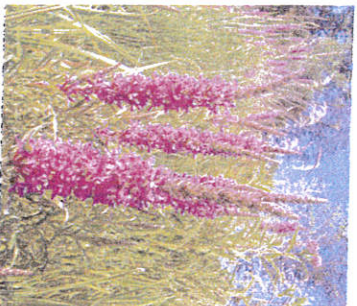
"Shell Lake Fisheries Overview" by Jamison Wendel, WDNR Fisheries Biologist

Help Keep Our Lakes Clean

Beach Maintenance *(call City Hall if you have any questions 715-468-7679)*

Lower water levels have left many of us with exposed beach areas. We get to enjoy the exclusive right to utilize these areas located below the ordinary high water mark (1221.8 feet on Shell Lake); however this added benefit comes with some responsibility and rules.

1. Removal of vegetation is limited to a single 30 foot wide path.
2. You can only remove vegetation in the 30 foot wide path by hand - this means hand pulling, weed whacker, or push mower. It is illegal to use rototillers, ATVs, tractors or similar motorized vehicles in these areas.
3. No herbicides of any kind can be used anywhere on the lake bed (below the ordinary high water mark OHWM). Call City Hall if you need to determine the location of the OHWM on your property.



Purple Loosestrife Control

Again this year we ask that you control purple loosestrife on your property.

1. Pull the loosestrife and dispose of it by placing it in your garbage.
2. If you have large areas of loosestrife, call the City Hall and they will arrange placement of loosestrife eating beetles on your property.
3. Free brochure with control tips and loosestrife ID is available at City Hall.

Don't add P – "fertilizer" to the Lake

Excess phosphorus increases algae growth (greening) in our lakes. Its use on lawns is restricted in Wisconsin.

1. Don't use fertilizers that contain phosphorus on your lawns.
2. If you do fertilize, test your soil first to see what you actually need.
3. Be sure your fertilizer bag has a ZERO for the middle number of the chemical analysis.



Shell Lake Aquatic Invasive Species Project - 2012

Purple Loosestrife Inventory sheet

Site Number	Date	Section	Location Town	Range	Water Body (if applicable)	# of plants	Extent of Infestation	Lake, ditch, etc.
1	7/12/2012	Wetland	Industrial Blvd		Shell Lake	<0.1 acre	.1-.5 acre	>0.5 acre
2	7/12/2012	Shell Lake	Airport		Shell Lake	Released beetles - 2 pots	(50 plants)	Wetland
3	7/12/2012	Access #14	on South Bay		Shell Lake	Released beetles - 3 pots	(1 acre)	Lakeshore
4	7/12/2012	Access #12	on South Bay		Shell Lake	Released beetles - 2 pots	(50 plants)	Lakeshore
5	7/12/2012	Access #11	Pratt-Winton		Shell Lake	Released beetles - 2 pots	(100 plants)	Lakeshore
6	7/12/2012	Access #10	North Landing		Shell Lake	Released beetles - 2 pots	(0.5 acre)	Lakeshore
7	7/12/2012	Access #9	Donovan Cove		Shell Lake	Released beetles - 2 pots	(10 plants)	Lakeshore
8	7/13/2012	Scout Island			Shell Lake	Released beetles - 3 pots	(5 plants)	Lakeshore
9	8/8/2012	Donovan Cove Rd			Shell Lake	DNR released beetles		Lakeshore
10	8/7/2012	Diversion Ditch			Shell Lake	10 plants - pulled		Lakeshore
11	8/10/2012	Main Landing			Shell Lake	Roundup - 100 plants		Lakeshore
12	8/14/2012	Cenex Wetland			Wetland	1 plant - pulled		Lakeshore
						Roundup - 30 plants		Wetland

Actions taken:

- Brett Holman, a Shell Lake High School Student, raised beetles for us this year. He potted 15 plants and added beetles which were purchased from DNR. On July 12, 2012 the beetles were released on the sites indicated on the inventory sheet above. The City Crew also followed up on these sites with herbicide treatment.
- The Mayor sent a letter to all lakeshore property owners asking them to remove purple loosestrife on their property.
- If the City noticed purple loosestrife on private property, the owner received a letter or phone call.
- The City Crew either pulled or sprayed Roundup to kill purple loosestrife on all city-owned property and accesses. (DNR treated theirs)
- An article was placed in the Washburn County Register explaining how to identify purple loosestrife and methods of control.
- An invasive species exhibit was displayed at the Lake District Annual Meeting.
- A purple loosestrife plant was displayed in City Hall with brochures available to the public.
- Continued an "adopt an access" program in which an individual or group can adopt an access and monitor for invasive species.