Lake Redstone Protection Connection

LAKE REDSTONE PROTECTION DISTRICT • FALL 2010

DNR Tightens Rules on Aquatic Plant Spraying

by Jim Mercier, LRPD Chair

One of the major duties of the Lake Redstone Protection District is to try to manage the aquatic plant population on the lake to ensure clear navigation and recreational use.

After the spraying was completed in September, there were many complaints from property owners noting that their area or bay was missed. The District contacted the sprayer and he returned to treat the areas in question. Even after the second application, there were complaints that certain areas still had a problem. The District contacted the sprayer again to try to solve the problem. The sprayer noted that with tighter Department of Natural Resources restrictions on spraying, some areas could not be treated. The District hopes that the following information will help property owners understand the situation.

Since 2002, the District has used professional sprayers to manage the lake's aquatic plants. A new management plan adopted by the Board in November calls for this practice to continue in the future. Surveys have shown that property owners and the public welcome the District's efforts to manage aquatic plants and feel comfortable with the controlled chemical spraying in the lake.

The management plan incorporates new DNR spraying rules as a result of the 2008 designation of Lake Redstone as a critical habitat body of water. Following this designation, in 2009 the DNR adopted special rules for the control of aquatic plants in 14 of the 20 sites designated as critical habitat.

In these 14 sites, 50 FEET of shoreline can be treated for nuisance levels of the nonnative, invasive Eurasian water milfoil (*Myriophyllum spicatum*) and curlyleaf pondweed (*Potamogeton crispus*) if there is high recreational use in the area or if navigation is an issue. However, ONLY 25 FEET can be treated IF NATIVE PLANTS COMPRISE SOME OR MOST OF THE PLANTS in the high-use and/or navigation need area. If there is no navigational or high-use requirement in these latter areas, then no treatment should be made.

The DNR's 2010 permit letter also noted the new requirement that WHERE LILY PADS ARE PRESENT THEY MUST BE PROTECTED IN ALL CASES. During tours of the lake by District volunteers, they have noticed that lily pads are closing in on a couple piers in the Martin/Meadowlark area and could become a problem for the property owners getting in and out with their boats. Also, in Mourning Dove/Oriole Bay, they

continued on page 6

Officers Keeping Tabs on Slow-No Wake Zones

Local law enforcement agencies remind boaters to observe Slow-No Wake areas on Lake Redstone and other area waters. According to Joe Prantner of the La Valle Police Department, the following offenses are punishable by a $114 fine:

- *Operating a motor boat at a speed greater than slow-no wake within 100 feet of shore or a pier;*
- *Operating a motorboat or personal watercraft at a speed greater than slow-no wake in any designated slow-no wake buoyed area;*
- *Operating a personal watercraft at a speed greater than slow-no wake within 200 feet of shore; or*
- *Operating a personal watercraft at a speed greater than slow-no wake within 100 feet of another boat or personal watercraft.*

Tickets may increase to $196 if issued by the Sauk County Sheriff or DNR wardens.

Through October 1, La Valle Police had issued 114 boating citations on Lake Redstone (including 55 for personal watercraft) compared to 94 last year. 138 written warnings had also been served, down from 156 in 2009.

Both the LRPD storage building and repairs to Mourning Dove Bay are visible in this aerial photo.

AL BAADE.

Area Projects Highlight Active Summer

by Al Baade

2010 was a busy year around Lake Redstone, and below are several of the projects the LRPD Board has worked on in the past few months. If you'd like further information, please visit the links indicated or contact a Board member.

♦The District has applied for a DNR permit to remove the rock that washed into the lake just north of the Section 11 boat landing.

♦The July storm caused some damage to the recent repairs at the end of Mourning Dove Bay. The contractor, Rule Construction of Dodgeville, has honored its warranty and agreed to repair the site again, charging the District only for new material.

♦Several of the presentations from past Annual Meetings have been added to the LRPD web site. Go to ***www.LakeRedstonePD.org*** and click *"Presentations and Studies."*

♦While there haven't been any zebra mussels captured in the traps the District sets out every year, there were some dead zebra mussels found in a tire used as a dock bumper at the Sauk County boat landing. After a careful investigation, the DNR has concluded for a variety of reasons that these dead mussels were not from Lake Redstone.

♦This spring, DNR fish health biologist Nicholas Legler removed 150 fish from each of 27 lakes around the state, including Lake Redstone. He was looking for the viral hemorrhagic septicemia (VHS) virus, which poses a severe threat to Wisconsin fish. The spleens and kidneys of the fish were analyzed and no evidence of VHS was found. For more information on VHS, see ***http://dnr.wi.gov/fish/vhs/***.

♦There have been several reports this fall of a jelly-like mass found on logs, piers, and boat lifts. These are bryozoans, a living colony of inoffensive creatures. They are an indicator of a healthy aquatic environment. The web page ***http://dnr.wi.gov/lakes/commonquestions/bryozoa.html*** has more information and pictures of bryozoans.

♦Ownership of the District's storage building has been transferred to the Town of La Valle. Since District volunteers are no longer the ones treating aquatic plants and the District no longer has a boat, the storage building has only been used for storage of records. Meanhile, the District has been paying for electric service to the building as well as liability insurance. The Town has agreed to provide indoor, heated storage for the District's records.

♦Some photos of the early days of Lake Redstone have been placed on-line by the Reedsburg Library. Go to ***www.flickr.com/photos/reedsburglibrary*** and search for *"Redstone."*♦

Thanks, Cal!

After 10 years of dedicated service on the LRPD Board, including three terms as treasurer, Cal Maurer chose to retire this summer. At right, Priscilla Bondhus presents Cal with a plaque commemorating his excellent record-keeping work as Board members Warren Frank, Jim Mercier, and Cal Brey look on. Nick Ladas was elected at the August 7 Annual Meeting to replace Maurer on the Board.

PHOTO CREDIT?

Lake Redstone Protection District

Protecting and rehabilitating the water quality of Lake Redstone for its residents and the public.

www.lakeredstonepd.org

Board of Directors

Jim Mercier, Chair
(608) 985-8218
mercijm@mwt.net

Warren D. Frank, Secretary
(608) 985-7455
warrenfrank@msn.com

Nick Ladas, Treasurer
(608) 985-8604
nick@mwt.net

Priscilla Bondhus, Commissioner
(608) 827-5554
(608) 985-8027, Lake
pbondhus@charter.net

Geeg Drum, Commissioner
(608) 985-7708
drumg@mwt.net

Cal Brey,
Town of LaValle Representative
(608) 393-9867
brey@mwt.net

Linda Borleske,
Sauk County Representative
(608) 524-2509
lborleske@co.sauk.wi.us

Protection Connection edited by
Rob Nelson
(608) 356-7662
unkierob@merr.com

Early Data Show Shad Changing Fishery

by Warren Frank, LRPD Secretary

Many of you are aware that the Wisconsin Department of Natural Resources has been conducting a survey of the fish habitat on Lake Redstone. This started at ice-out last spring and will continue through the fall until ice again forms across the surface of the lake.

DNR Fisheries Technicians Dan Fuller and Michael Rinnecke provided updates of their efforts at mid-summer, early August, and again in late October. While their final conclusions and official report will not be written until their field work slows later this winter, some of their preliminary impressions will be of interest to all of you.

Dan's initial comments recognize that gizzard shad (*Dorosoma cepedianum*) have "come onto the scene in Lake Redstone and they will and have caused some changes to the fishery." Native to river systems of the central and eastern U.S., gizzard shad have often been introduced as a prey species for game fish, with their range limited by cold weather.

John Lyons, Wisconsin DNR.

Gizzard shad like this one are having a growing impact on sport fish at Lake Redstone and other area water bodies.

Dan suspects that the removal of dams on the Baraboo River allowed the shad to swim upstream, and eventually reach Lake Redstone. There are now three year classes of gizzard shad living in the lake, ranging in size from 12-14 inches, 7-9 inches, and 4-6 inches. Although they provide a forage base for other fish, their young compete very effectively relative to the young of other species for food and grow quickly.

Warm, but not high, water temperature, with soft muck bottoms and high turbidity are good conditions for increasing populations of gizzard shad. Although Lake Redstone has numerous predator fish, the lack of clear water reduces their ability to see and attack the gizzard shad.

During the spring pre-spawn run, the DNR started fyke netting and captured a number of both pre-spawn and spawning walleye as well as pre-spawn adult muskellunge. All captured fish were counted and then given a fin clip before being returned to the lake.

In Dan & Michael's opinion, the population estimate was very good. They estimate 2,627 adult walleyes in Lake Redstone with a density of 4.3 per acre. The average for a stocked fishery is 1.7 per acre, and 3.3 per acre for a naturally-reproducing lake.

They plan additional fyke netting of muskellunge next spring, but did provide an estimate based on electroshocking of 211 adult muskie in Lake Redstone with a density of 0.3 per acre. Drawing from his experience with only a few muskellunge fisheries, Michael predicts that these low numbers would still be above average.

They also tried to put together an estimate for largemouth and smallmouth bass populations, but caught only a few during electroshocking due to the overwhelming presence of spawning gizzard shad.

Based on a similar 2009 survey of Swan Lake near Pardeeville in Columbia County, the final report may suggest fish stocking of older fingerlings of various predator species by holding them over winter and releasing them in spring. At Swan Lake, the survival rate was three times higher, which reduced costs by 42%. The active Swan Lake Association also had installed wood pallets and fish cribs. Swan Lake seems very similar to Lake Redstone with a soft bottom, and steep drop-off to greater depth which results in relatively few aquatic plants to provide protective cover for young fish. A large influx of gizzard shad at Swan Lake has also been detrimental to the general fishery.

Thanks again to Dan and Michael for their work, and for keeping us updated on their progress. We will now look forward to their full report late this winter or very early spring—it should be interesting and provide guidance for future activities.

These photographs show the plume of sediment entering Lake Redstone on July 15 looking south from the the northwest finger (top) and looking west near the Section 11 road.

Photos by Solverson Top Flight Aviation.

Seeking Source of 'Chocolate Plume'

by Al Baade

On the evening of Wednesday, July 14, the northern watershed got more than 5 inches of rain in a short period of time. Lake Redstone rose 18 inches overnight and crested that afternoon after rising an additional 5 inches. It's hard to believe, but the lake rose close to ***two feet*** in less than 24 hours!!

By Thursday, a plume of brown silt had started to appear in the northwest finger, heading for the main body of the lake. The photos at left were taken that afternoon. In the background of the top photo the blue water in the main body of Lake Redstone can be seen. Looking at the bottom image, the front of the brown plume can be seen advancing to the left towards the Section 11 boat landing. Over the course of the next several weeks, the water clarity in the lake slowly returned to normal as the silt settled.

The lake has been that brown color, to varying degrees, in the past. During the flood in June of 2008, both the northwest and northeast streams flowed with silty, brown water. Two days later, the entire lake, all the way to the dam, was brown. Visibility was only a few inches at the worst point. But it is the northwest finger that sees varying degrees of the brown plume much more often, usually after fast rainfalls of around an inch or more.

continued on page 5

Board Tours Successful Juneau County Project

by Priscilla Bondhus, LRPD Commissioner

Following the heavy rainstorm on July 14, the LRPD Board accompanied District Conservationist Jon Field of the Natural Resources Conservation Service to tour several Juneau County sites within the Lake Redstone watershed. In addition to looking for future projects which could improve water conditions in Lake Redstone, we had the opportunity to visit a past watershed project supported by the Board in 2002.

At the Pfaff farm in Town of Summit, as with other similar operations, the Board helped fund the installation of gutters and downspouts to control water runoff from the roof of the barn through the barnyard and beyond into the watershed. Additional cement was installed as a control surface to move the solid and liquid animal waste into a screening area and pit. The cement also provides a surface that allows owner Ralph Pfaff to scoop up the mass with an end loader and spread it later on his fields. As the remaining effluent moves across the barnyard it flows into a pit where it is filtered through screenings. The larger solids are collected and later removed, while the liquid effluent filters through a 50-foot rough grassy area before entering the watershed via adjacent creeks.

Farmers and U.S. Department of Agriculture researchers tell us that cows have the capability of dropping more than 40 pounds of organic material (cow pies) in a single day. With a herd of 85 animals at this one location, this adds up to 3,400 pounds per day, or over 1.2 million pounds a year—not including urine! Without projects such as this one, Lake Redstone would have been the recipient of much of this pollution, along with the resulting excessive algae and aquatic

continued on page 5

***Plume** . . . continued from page 4*

So what is the Board going to do about it?

The first thing to do is gather hard facts. Two weeks after the storm, a group of District volunteers put on their grubby clothes and walked down the stream, starting about a mile north of the lake. They found at least six inches of silt covering nearly the entire streambed—in many places the silt was 18 to 24 inches deep or more.

In the words of volunteer Dave Starin, "That's lots of stuff present to scour down into Lake Redstone!"

In the area the volunteers walked, the stream banks were heavily vegetated with waist-high plants without any large areas of open erosion observed. There was some natural erosion along some areas of the stream bank, but not large enough to deposit all the silt they were wading through. (Photographs of the stream walk, as well as other aerial photos, are posted on the LRPD website. Go to ***www.lakeredstonepd.org*** and click on *"Presentations & Studies."*)

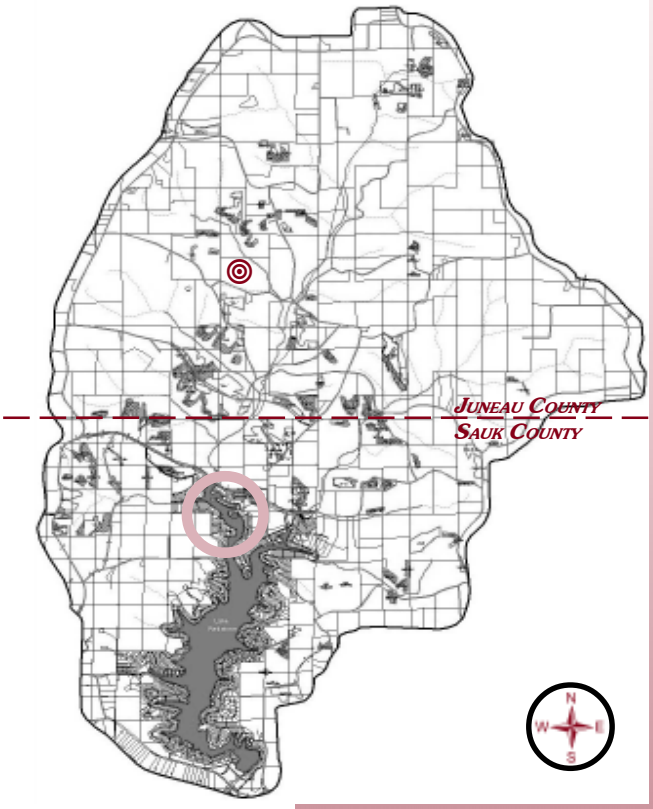
A week later, a volunteer for the District went up in a plane to look for large areas of erosion in the northern watershed. Unfortunately, none were found. But at that time there still was a lot of foliage. The Board is considering renting a helicopter to more closely examine the watershed in autumn, after the leaves have fallen.

If a point source of erosion is not found, the Board is also starting to consider other possible plans of attack. Some things being considered include:

- Seeking the advice of experts and others who have experience with similar situations.
- Working closely with Juneau County's Natural Resources Conservation Service (NRCS) to participate in more watershed projects, such as the one described in the article below.
- Building settling ponds using a low dam just north of County F to trap the silt. They would require periodically cleaning. This would not be a fast project and would require DNR permits and possible land acquisition. Also, some sort of road would be needed to reach the ponds with heavy equipment for cleaning them out. But it is something under discussion.
- Stabilization of the stream banks and bottom to prevent movement of the sediment.

It should be noted that this is a very early list of potential options. These will be evaluated, while more options may be added in the future. However, if a point source of the erosion is located, the primary efforts will, of course, be focused on repairing that area.

Stay tuned for more updates.



The map above shows the entire Lake Redstone watershed. The photographs on page 4 were taken near the pink circle, and the location of the Pfaff farm is indicated by the red bull's-eye.

***Juneau County** . . . continued from page 4*

plant growth.

The District's cost of supporting this management project was $20,000. The Department of Agriculture also funded a major portion of the cost and provided the engineering expertise, while the landowner contributed a smaller portion.

Was it worthwhile? This project reduced the phosphorus load running off the farm by 50 percent. The Board feels that support for projects like this across the Lake Redstone watershed significantly improve the health of the Lake, and provide financial, health, and aesthetic dividends to area residents.

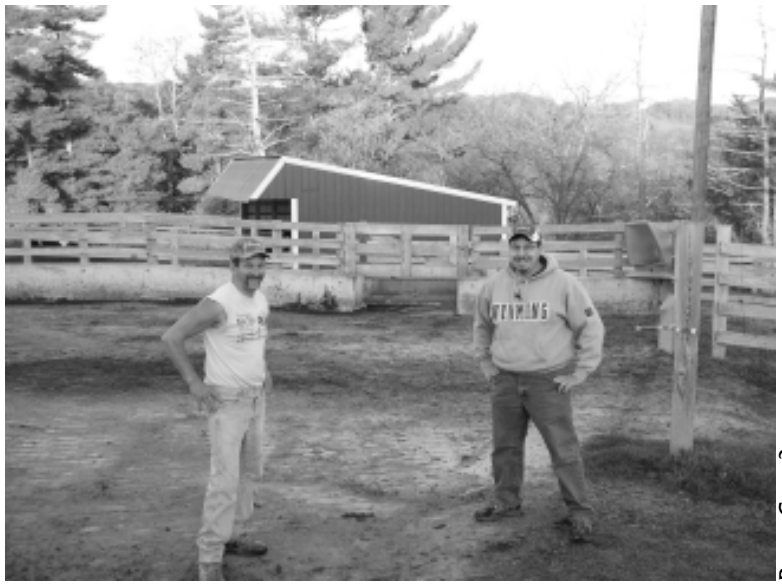


Photo Credit?

Farmer Ralph Pfaff (left) and NRCS District Conservationist Jon Field stand on a cement surface that helps collect barnyard animal waste before it enters the Lake Redstone watershed.

Take a Stake in Your Lake!

Here are a few simple ways you can help enhance Lake Redstone and protect your property investment:

- ***Establish a rain garden;***
- ***Use low- or no-phosphate detergents;***
- ***Ensure proper maintenance of your septic system;***
- ***Keep hard surface on your property to a minimum;***
- ***Choose zero phosphorus fertilizer or use no fertilizer at all;***
- ***Properly dispose of household hazardous wastes and medicines;***
- ***Protect your property from soil erosion by maintaining shoreline buffers;***
- ***Keep garden refuse, grass clippings, leaves, pet waste, and campfire ashes out of the water;*** *and*
- ***Don't feed the geese.***

You can learn more at:

- ***www.dnr.wi.gov/lakes***
- ***www.uwsp.edu/cnr/uwexlakes/***
- ***www.wisconsinlakes.org/***

Lake Redstone
PROTECTION DISTRICT
P.O. BOX 313
LAVALLE, WI 53941
www.lakeredstonepd.org

Spray *. . . cont. from page 1*

are spreading and could become a problem.

These new restrictions led to the sprayer's uncertainty of his authority to apply chemicals in some locations this year and resulted in the repeated applications. In view of this, in the future the District will work more closely with the sprayer and DNR to make sure there is a clear understanding of the authority to control aquatic plants in the 14 critical habitat sites.

As always, it is the goal of the District to provide for reasonable navigation and recreational use of the lake's waters while valuing the healthy impact of aquatic plants on water quality and the fishery.

Grant to Fund Invasive Species Awareness

by Beverly Vaillancourt, Town of La Valle Lakes Committee Chair

The Town of La Valle is pleased to announce that it has been awarded an $8,210 grant by the Department of Natural Resources for 2011 to address aquatic invasive species and their potential threat to the water quality of Dutch Hollow Lake and Lake Redstone.

The focus of the grant is to enhance awareness of aquatic invasive species and expand to Lake Redstone the voluntary ***Clean Boats-Clean Waters*** program already established at Dutch Hollow. Through a series of presentations, students and town residents will learn about the threat posed by aquatic invasive species to lake health. Volunteers are a key component of this grant. Students and others will actively engage in monitoring the presence of two targeted aquatic invasive species this summer. The overarching goal of the grant is prevention through education.

The grant application was written by Town supervisor Bev Vaillancourt, endorsed by both the Lake Redstone Protection District Board and the Dutch Hollow Association Board, and approved and submitted to the Wisconsin DNR for review by the La Valle Town Board. The grant will involve interested town residents, students from area high schools, as well as youth from the county Youth Environmental Projects of Sauk County (YEPS) program.

The grant provides funding for a grant manager (up to 200 hours) who will work with local school districts and volunteers in meeting the parameters of the grant. Anyone interested in applying for the grant manager position should contact the Town of La Valle at 985-7695.