

**2012 Lake Redstone Protection
District Small-scale Lake
Management Planning Grant Final
Report**

*Aquatic Plant Survey and Pre-Aquatic Plan
Management Planning*

Sauk County, Wisconsin

DNR No. SPL-293-13
SEH No. LAKER 119727

June 7, 2013

June 7, 2013

RE: Aquatic Plant Survey and Pre-Aquatic
Plan Management Planning
2012 Lake Redstone Protection District
Small-scale Lake Management Planning
Grant Final Report
Sauk County, Wisconsin
DNR Project No. SPL-293-13
SEH No. LAKER 119727

Ms. Priscilla Bondhus
Lake Redstone Protection District
1300 N. High Point Road
Middleton, WI 53562

Dear Priscilla:

This document should be considered the final deliverable for Wisconsin Department of Natural Resources small-scale lake management planning grant SPL-293-13 awarded in April of 2012. The document and the attached CD should be adequate for seeking full reimbursement for expenses made.

Expenses related to the costs of the 2012 Warm Water Point Intercept Aquatic Plant Survey work completed by Endangered Resource Services, LLC (ERS) (a sub-consultant of SEH) is reimbursable up to \$3,000.00. Attached is the original project quote for ERS services. Since this was paid directly by the LRPD to ERS, SEH does not have a record of the paid invoice. Please search LRPD records for the invoice and the payment made. Expenses related to SEH services paid for by the Lake Redstone Protection District should serve as the required match for reimbursement purposes.

Included with this document are the SEH Invoices (Appendix D) that are associated with the 2012 Pre Aquatic Plant Management Planning Project.

Sincerely,

Lake Scientist

DLB

p:\ko\laker\119727\2-proj-mgmt\lake redstone final report #spl-293-13.docx

Aquatic Plant Survey and Pre-Aquatic Plan Management Planning
Sauk County, Wisconsin

Prepared for:
Lake Redstone Protection District
La Valle, WI

Prepared by:
Short Elliott Hendrickson Inc.
1701 West Knapp Street, Suite B
Rice Lake, WI 54868-1350
715.236.4000

Project Manager: Dave Blumer, Lake Scientist
June 7, 2013

Distribution List

No. of Copies

Sent to

2

Priscilla Bondhus
Lake Redstone Protection District
1300 N. High Point Road
Middleton, WI 53562

1

Susan Graham
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Table of Contents

Letter of Transmittal
Title Page
Distribution List
Table of Contents

	Page
1.0 Project Background	1
2.0 Project Goals	1
3.0 Project Deliverables	2
4.0 AIS Education Grant APMP Project	2
5.0 Required Match	3
6.0 Request for Reimbursement	3

List of Appendices

Appendix A - Aquatic Plant Survey Point Intercept Map
Appendix B - Aquatic Plant Survey Final Report from ERS (SEH Transmittal)
Appendix C - August 4th, 2012 LRPD Annual Meeting Agenda and SEH Presentation
Appendix D - SEH/LRPD Agreement for Professional Services and Project Invoices
Appendix E - Original Small-scale Project Description and Budget

2012 Lake Redstone Protection District Small-scale Lake Management Planning Grant Final Report

Aquatic Plant Survey and Pre-Aquatic Plan Management Planning

Prepared for Lake Redstone Protection District

1.0 Project Background

In response to a WDNR request that the LRPD complete a APMP, the LRPD prepared a request for proposals (RFP) that was sent out to many consulting agencies in WI in the fall of 2011. SEH prepared a proposal in response that was eventually accepted by the LRPD for the purpose of guiding them through the process of developing an APMP. Initial steps in the process included working with the LRPD to help them understand why a more formal APMP was needed, and to seek buy in from Constituents of the Lake District including board members and property owners.

To do this, a small-scale lake management planning grant was prepared by SEH and submitted to the WDNR on behalf of the LRPD during the February 2012 grant cycle. This grant was awarded. Components of the project included a full warm-water, point-intercept aquatic plant survey of the entire lake, and meetings and discussions with the LRPD to help them 1) discuss details about the aquatic plant management planning process: what is being done and why, 2) answer questions and address concerns that may come up during the initial stages of planning, 3) help develop partnerships to support the aquatic plant management process, and 4) prepare the LRPD for a possible request for Aquatic Invasive Species Education, Prevention, and Planning grant funds from the WDNR in August 2012 to complete further aquatic plant management activities.

2.0 Project Goals

The two main goals of this project were educate the Lake Redstone Protection District and its membership about the process involved in creating an aquatic plant management plan (APMP) for the lake, and to collect necessary aquatic plant survey information about Lake Redstone for use in developing an APMP to implemented in its entirety in 2014.

Goal 1 included discussion with the LRPD Board about the process and expectations associated with the development of an APMP, from the perspective of the WDNR, LRPD, and the general public.

Goal 2 included the completion of a mid-season, summer, point-intercept, aquatic plant survey of all aquatic vegetation in Lake Redstone by a qualified plant survey specialist.

Not directly tied to this small-scale project, but the preparation and submittal of an Aquatic Invasive Species Education, Prevention, and Planning grant application to the WDNR in August of 2012 on behalf of the LRPD was also completed. The purpose of this grant

application was to solicit additional funds to aid the LRPD in completing an APMP for the lake that can and will be approved by the users and property owners of Lake Redstone, and by the WDNR.

3.0 Project Deliverables

Following WDNR guidelines, 966 points (Appendix A) were surveyed by Endangered Resource Services, LLC, a sub-consultant working with SEH, July 12-13, 2012. A full report of that survey (considered one of the primary deliverables of the small-scale lake management planning project) was completed and distributed to the LRPD at their 2012 Annual Meeting on August 4th, 2012, and to the WDNR on August 17th, 2012 (Appendix B).

SEH went to Lake Redstone four times in 2012. On February 14th, SEH went to the lake to tour the area and take photographs. On June 18th, SEH toured the lake with several representatives from the LRPD Board. This tour was originally planned because of an expected aquatic plant treatment, but this treatment was delayed due to weather concerns. Instead SEH was able to tour the lake and get a first-hand account of the expectations held by the LRPD for aquatic plant management. On June 26th, 2012, SEH set up a visit to the WDNR offices near Madison to look through existing files on Lake Redstone and then attended a LRPD board meeting held in the evening on that same day. Finally, SEH went back to Lake Redstone on August 4th to present at the Annual Meeting of the LRPD. The agenda for this meeting and a copy of the presentation given by SEH is included in Appendix C.

In addition to the actual visits to Lake Redstone, communication was had throughout this project via email and phone, with many partners including the WDNR, LRPD, Town of La Valle, Cason and Associates, Dutch Hollow Lake, Endangered Resource Services, and SEH. Through these media, SEH was able to address concerns expressed by the constituents of the LRPD through representatives on the Board and the WDNR. A record of the email contacts during this time is recorded on the data CD that accompanies this document.

Though not specifically an action included in the small-scale lake management planning grant, an Aquatic Invasive Species Education, Prevention, and Planning Grant application to support the completion of an APMP for Lake Redstone was prepared by SEH with a great deal of input from the LRPD and WDNR and submitted for consideration during the August 2012 grant period. This grant was awarded by the state, and at this time an APMP is being developed for Lake Redstone.

4.0 AIS Education Grant APMP Project

The APMP project that was awarded in October of 2012 includes aquatic plant management planning for 2013 based on aquatic plant survey results from the point intercept survey that was completed by ERS and a fall EWM survey completed by Cason and Associates. Also considered were past aquatic plant treatment efforts on the lake. As a result a “whole lake” treatment approach in one large bay of the lake was implemented in 2013, along with the regular summer nuisance relief management efforts that are normally undertaken. Pre and post treatment aquatic plant survey work has and is being completed as is residual testing for herbicide residuals left over from the treatment. All of these factors along with public input from the LRPD and other partners will be incorporated in the final APMP scheduled to be ready for implementation in 2014.

5.0 Required Match

Match for this project was provided in the form of LRPD payment of SEH invoices associated with the grant project. These include oversight for the aquatic plant survey work that was completed and SEH contact with the constituents of the LRPD through actual lake visits and appearances at 2012 LRPD Board Meetings, lake tours, WDNR files search, and the LRPD Annual Meeting. Additional project time was involved in maintain a continuous dialogue with the LRPD, WDNR, and other partners throughout this project.

Additional funds were spent by the LRPD to fund the preparation of both the small-scale grant application submitted in February 2012, and the AIS Education grant application submitted in August 2012. These expenditures were not intended to be match for this small-scale grant (SPL-293-13). Appendix D includes the SEH/LRPD Agreement for Services pertaining to this small-scale grant funded project and the SEH invoices that were paid by the LRPD. Appendix E includes the original project description and budget that accompanied the small-scale grant application submitted in February 2012.

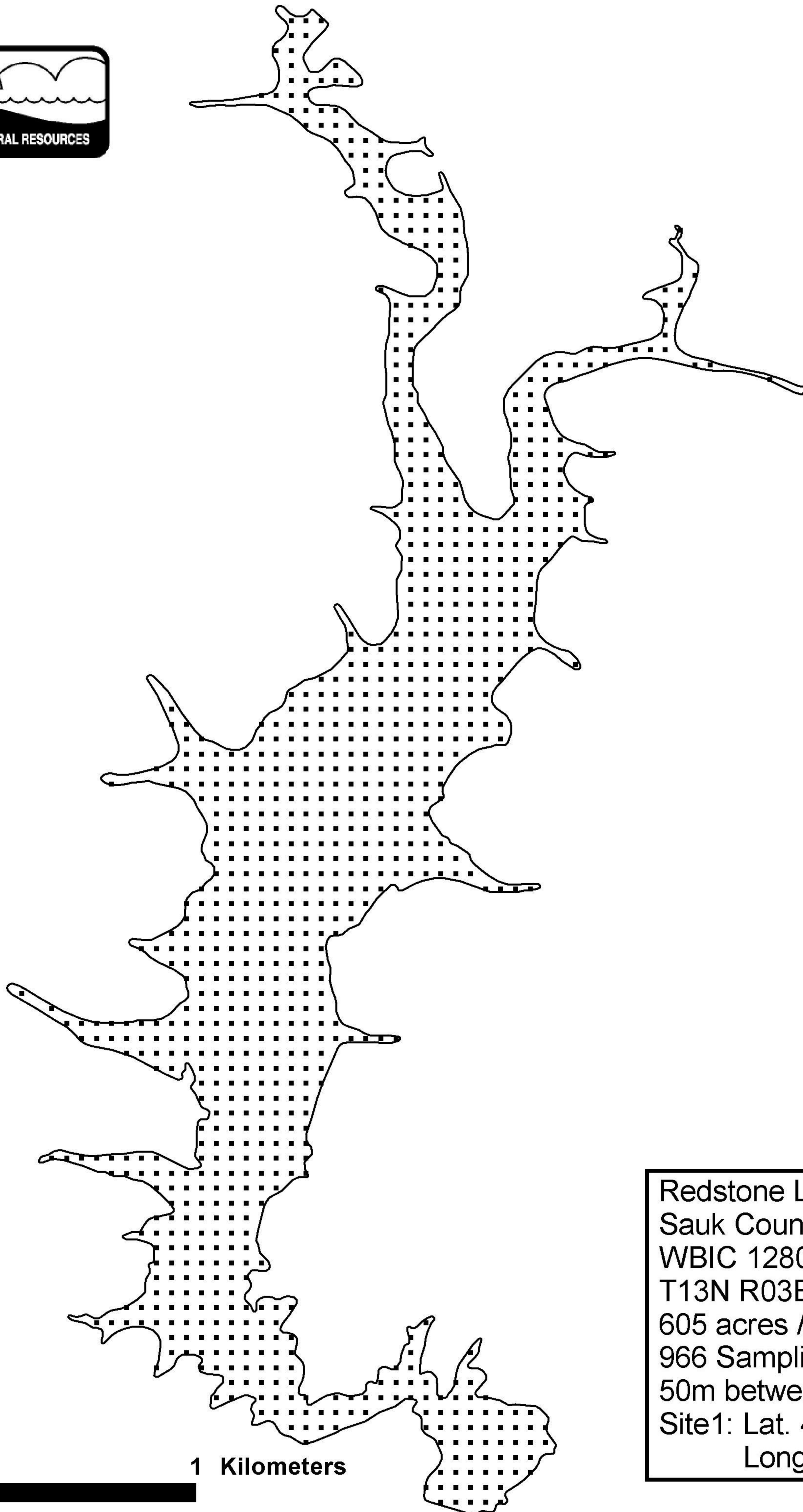
6.0 Request for Reimbursement

Please accept this document and the accompanying data CD as final deliverables for Grant Project SPL-293-13.

DLB

Appendix A

Aquatic Plant Survey Point Intercept Map



0 1 Kilometers

Redstone Lake
Sauk County
WBIC 1280400
T13N R03E S24
605 acres / 244.7 ha
966 Sampling Points
50m between Points
Site1: Lat. 43.60236842
Long. -90.10586695

Created: 2005

Appendix B

Aquatic Plant Survey Final Report from ERS (SEH Transmittal)



TRANSMITTAL

To: Susan Graham
Wisconsin Department of Natural Resources
3911 Fish Hatchery Road
Fitchburg, WI 53711

Date: August 17, 2012

SEH File No.: 119727 LAKER

Client No.: _____

Re: 2012 Warm Water Point Intercept Aquatic Plant Survey Report

We are:

Enclosing Sending under separate cover Sending as requested

one paper and digital copy of the "July Warm Water Point Intercept Aquatic Macrophyte Survey for Lake Redstone (WBIC 1280400) Sauk County, WI" completed by Matt Berg, Endangered Resources Sciences, LLC July 2012

For your:

Information/Records Review and comment Approval
 Action Distribution Revision and resubmittal

Remarks:

This is not intended to be the final deliverable for the Lake Redstone project in 2012, but it is one piece of it.

The Lake Redstone Protection District already received a copy of this report at their 2012 Annual Meeting.

By: Dave Blumer

c:

DLB

Appendix C

August 4th, 2012 LRPD Annual Meeting Agenda and SEH Presentation

AGENDA

La Valle, Wisconsin 53941

LAKE REDSTONE PROTECTION DISTRICT

Special Board Meeting

June 26

6:00 PM

Location: Town of La Valle Hall, La Valle, WI, 314 Highway 33

AGENDA

1. Call to order 6:00 PM
2. Approval of agenda per State of Wisconsin Laws pertaining to Open Meetings
3. Public Input
4. Dave Blumer, Lake Scientist and Project Manager with SEH, will meet with Lake Redstone Protection District Board to share progress on contracted Aquatic Plant Management Plan for Lake Redstone.
5. Adjourn no later than 9:00 PM

PSB 6/19/12



LAKE REDSTONE PROTECTION DISTRICT

P.O. Box 313
LaValle, Wisconsin 53941

July, 10, 2012

Dear Lake Redstone Property Owners,

The Lake Redstone Protection District will hold the annual meeting at the Town of LaValle Hall. Please consider this your invitation to attend the annual meeting.

When: Saturday, August 4th, 2012
Where: Town of La Valle Hall
314 Highway 33
La Valle, Wisconsin 53941
Time: 8:00 AM Coffee
8:30 AM Meeting

Enclosed you will find an agenda with a list of topics to be discussed as well as our proposed 2013 fiscal year budget. An update of current projects will be presented including our aquatic plant management progress. The board, 'values your input on these matters.'

This year we will be electing one commissioner to the board. A biography of a candidate is enclosed. Any other Lake Redstone Protection District property owner wishing to be a candidate should send a brief bio to: Priscilla Bondhus, LRPD Secretary, PO Box 313, La Valle, WI 53941.

As always, nominations will be accepted at the meeting from the floor.

Electors must be present to vote.

Please remember that the focus of the Lake Redstone Protection District's charter is specific to water quality issues.

I look forward to meeting with you at the La Valle Town Hall on August 4, 2012.

Sincerely,
Jim

Jim Mercier, Chairperson
Lake Redstone Protection District.

PSB 7/10/12

The mission of the Lake Redstone Protection District is to protect and rehabilitate the water quality of Lake Redstone for its residents and the public.



Lake Redstone Annual Meeting Agenda

August 4, 2012

AGENDA ITEM	TIME	PRESENTER
1. Welcome	5	Mercier
2. Election of 1 commissioner (nom. from floor)	5	Mercier
3. Minutes of 2012 annual meeting - Discuss & approve	5	Bondhus
4. Secretary's Report	5	Bondhus
5. Treasure's Report with audit	5	Ladas
6. 2013 Operating Budget – Discuss and approve	5	Ladas
7. Authorization of the Board to exceed \$10,000	5	Mercier
8. Aquatic Plant Management Program Dave Blumer, SEH	20	Guest Speaker
9. Lake District Update		
Aquatic Plants	5	Vaillancourt
Sediment Control	10	Drum
Carp Tournament	5	Happ
10. Introduce new board members	5	Mercier
11. Public Question and Answer	15	All
12. Adjourn		


The Mission of the Lake Redstone Protection District is to protect and rehabilitate the water quality of Lake Redstone for its residents and the public.

Lake Redstone Protection District: 2012 Annual Meeting
 Aquatic Plant Management: What up with that?




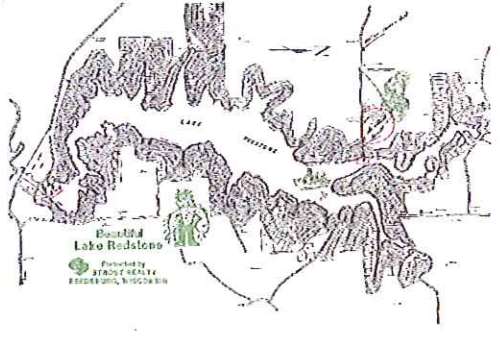
Clipping from the USGS TOPO – Reedsburg 1956

Approx. 10 yrs before Lake Redstone

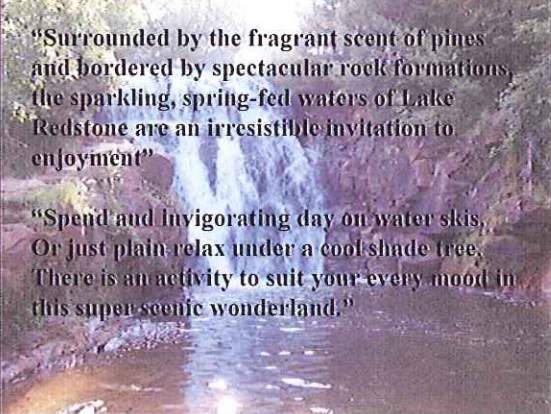


Clipping from USGS TOPO Reedsburg 1975

Approx. 10 years after Lake Redstone

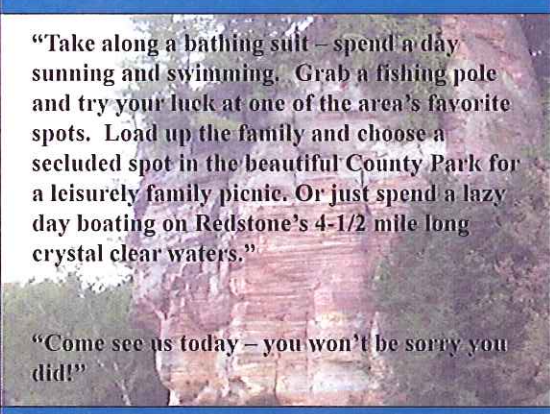



Strout Realty "Developable Lots" Map – circa 1964 (more than 1500 lots)



"Surrounded by the fragrant scent of pines and bordered by spectacular rock formations, the sparkling, spring-fed waters of Lake Redstone are an irresistible invitation to enjoyment"

"Spend an invigorating day on water skis, Or just plain relax under a cool shade tree. There is an activity to suit your every mood in this super scenic wonderland."



"Take along a bathing suit – spend a day sunning and swimming. Grab a fishing pole and try your luck at one of the area's favorite spots. Load up the family and choose a secluded spot in the beautiful County Park for a leisurely family picnic. Or just spend a lazy day boating on Redstone's 4-1/2 mile long crystal clear waters."


"Come see us today – you won't be sorry you did!"

Reality Sets In



- 1967 - Water quality conditions already going to pot
- 1981 - Property Owners Survey (LRPD)
 - 1500 property owners
 - 43% respond
 - 69% homeowners
 - Satisfaction w/water quality
 - 37% satisfied
 - 27% unsatisfied
 - 36% no opinion
 - 68% fear it will get worse
 - Biggest Concerns
 - Water quality (algae), weeds, boat speed, bank erosion
- 1989 - Invasive Species (EWM and CLP) are identified

Why is the Water Quality going to Pot?

- 10,000 acre watershed (30 square miles)
 - Lots of agriculture (livestock and crop land)
 - Lots of land erosion
 - Tremendous sediment and phosphorus loading to the system
 - 600 farm tracts, 146 have high soil loss (MSA, 2002)

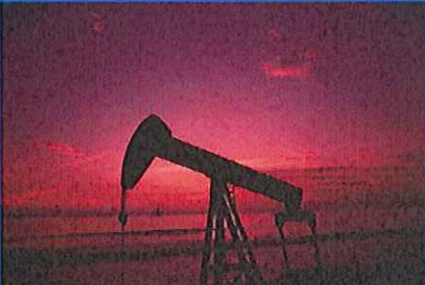


Why is the Water Quality going to Pot?


- Extensive lake shoreland development
 - 500 homes by 1997
 - How many now?

Why is the Water Quality going to Pot?



- Mixing and stratification

Why is the Water Quality going to Pot?



- Limited aquatic vegetation

Too Much Phosphorus!!!

Lot's Has Been Done!

- Watershed studies
 - Agricultural BMPs
 - Some shoreland improvements
- Internal loading studies
 - Bottom water withdrawal
- Aquatic Plant and Algae Management
 - Invasive and native species
 - Chemicals
 - Physical removal
 - Critical habitat study and designation
- Lake User Education

So how do people feel now?

- 2008 Property Owners Survey (UW-Extension & LRPD)
 - 1074 households, 32% response rate
 - 56% waterfront w/house
 - Lake Uses
 - Power boating, skiing/tubing, fishing, swimming
 - Satisfaction with Water Quality
 - 58% consider water quality good
 - Most felt water quality was still deteriorating
 - Biggest Concerns
 - Water quality, excess algae/weeds, farm runoff, shoreline erosion

2012 General Observations

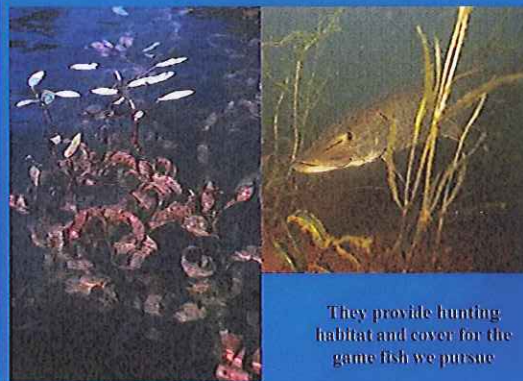
- People still complaining about water quality
 - Sediment and algae
 - want it to be like was promised
- People still complaining about aquatic plants
 - Native and non-native
 - They aren't allowed to get rid of enough of them
- Shoreland improvements are still not real high on people's list of "To Do's"
- People want to see changes or maybe they don't?

SO...

There is more work to do!

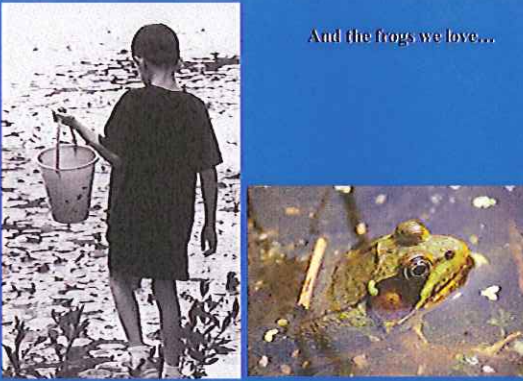
Aquatic Plants

So, why should we be concerned about aquatic plants and aquatic plant management?

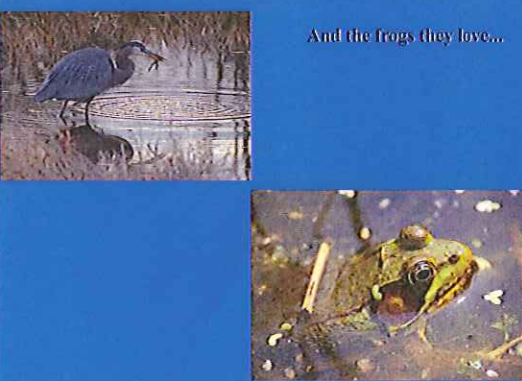


They provide hunting habitat and cover for the game fish we pursue

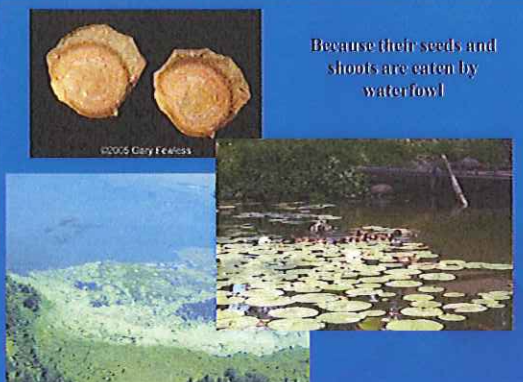
And the frogs we love...

A composite image for a slide. On the left, a person in a black shirt and shorts carries a bucket towards a pond. On the right, a close-up of a green frog with dark spots in a pond.


And the frogs they love...

A composite image for a slide. On the left, a blue heron stands in a pond. On the right, a close-up of a green frog in a pond.

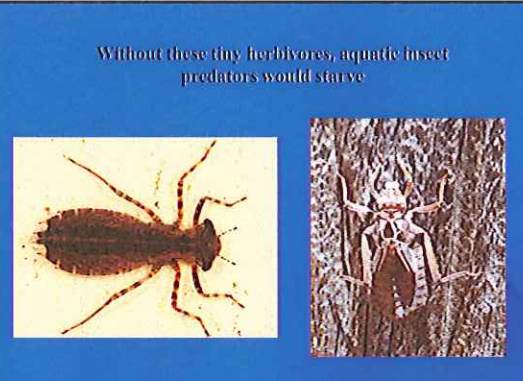
Because their seeds and shoots are eaten by waterfowl

A composite image for a slide. Top left: two lily pads. Top right: a pond with many lily pads. Bottom left: a green landscape with hills. Bottom right: a pond with lily pads.

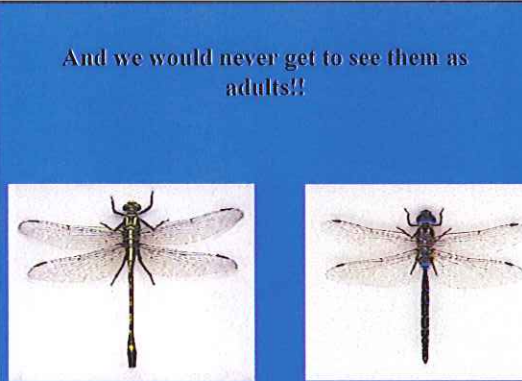
Because they provide food for aquatic insects and other invertebrates, they are the base of the food chain

A composite image for a slide. Top left: a water bug on a pond surface. Bottom left: a water penny larva. Bottom right: a scud or similar invertebrate.

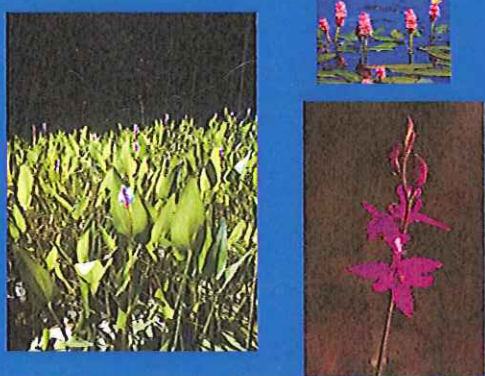

Without these tiny herbivores, aquatic insect predators would starve

A composite image for a slide. Left: a large aquatic insect predator. Right: a smaller aquatic insect.

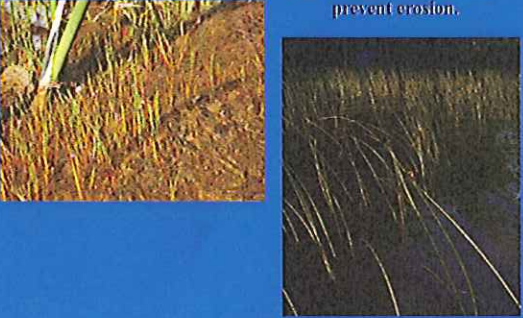
And we would never get to see them as adults!!

A composite image for a slide. Left: a dragonfly. Right: another dragonfly.

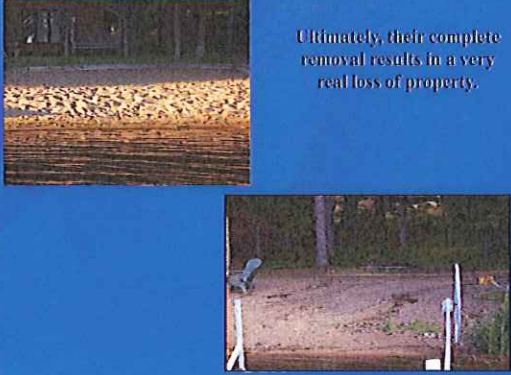
Esthetically, many are simply beautiful.




They break up wave action and stabilize the shore to prevent erosion.



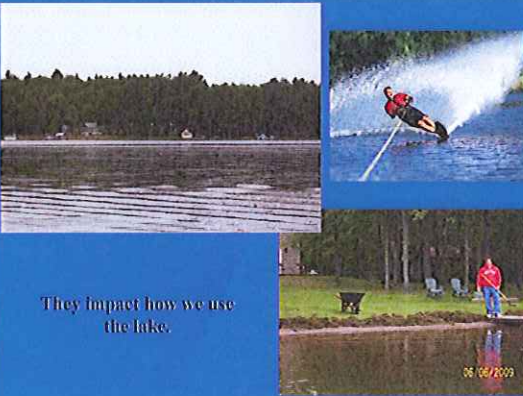
Ultimately, their complete removal results in a very real loss of property.

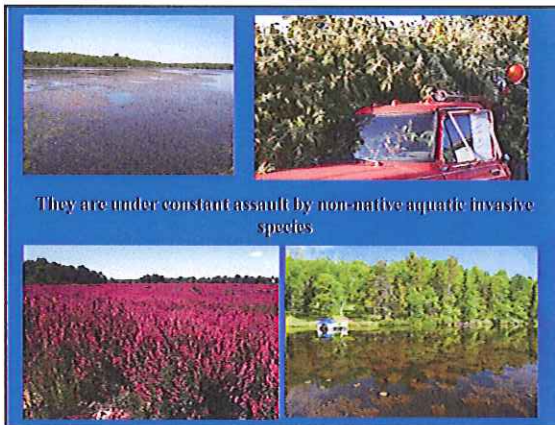


And cause a shift from high quality clean and clear water, to green highly degraded water

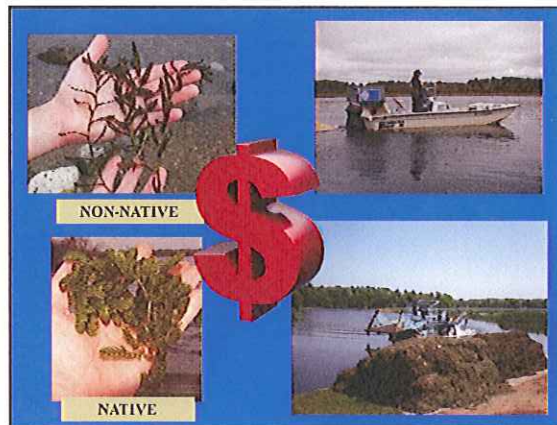


They impact how we use the lake.





They are under constant assault by non-native aquatic invasive species





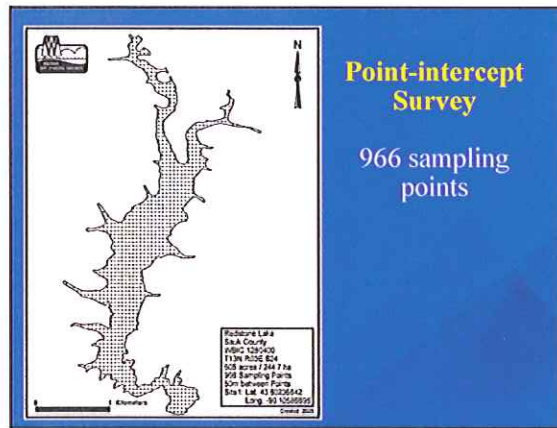
NON-NATIVE

NATIVE

Lake Redstone Vegetation

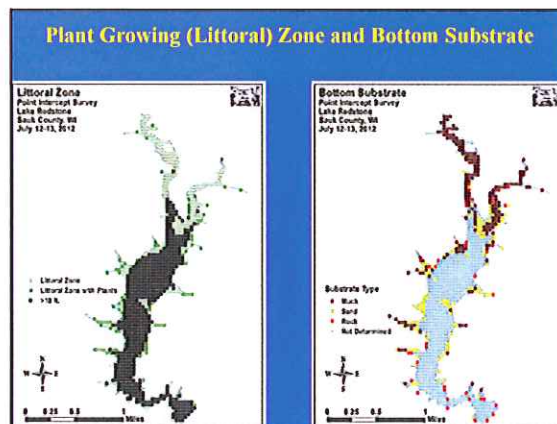
- Aquatic plants were surveyed in:
 - 1989 (10 species)
 - 1992 (11 species)
 - 1996
 - 2000 (14 species)
 - 2005 (14 species, first point intercept survey)
 - 2012 (16 species)
- Eurasian water milfoil and curly-leaf pondweed documented in 1989 survey

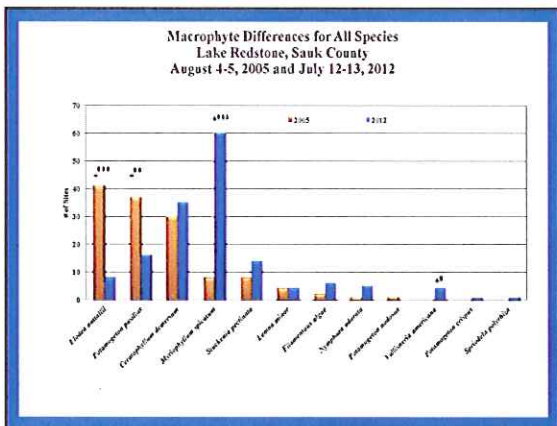
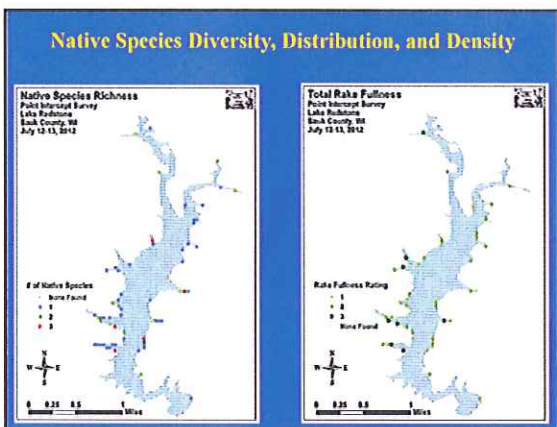





**Table 1: Aquatic Macrophyte P/I Survey Summary Statistics
Lake Redstone, Sauk County
August 4-5, 2005 and July 12-13, 2012**

Summary Statistics:	2005	2012
Total number of points sampled	290	566
Total number of sites with vegetation	76	85
Total number of sites shallower than the maximum depth of plants	255	337
Frequency of occurrence at sites shallower than maximum depth of plants	30.59	25.22
Simpson Diversity Index	0.76	0.75
Maximum depth of plants (ft)	12.0	10.0
Mean depth of plants (ft)	4.9	3.8
Median depth of plants (ft)	3.0	4.0
Average number of all species per site (shallower than max depth)	0.50	0.44
Average number of all species per site (veg. sites only)	1.67	1.74
Average number of native species per site (shallower than max depth)	0.47	0.26
Average number of native species per site (veg. sites only)	1.58	1.40
Species richness	8	10
Species richness (excluding visually)	11	14
Species richness (including visually and boat survey)	11	16
Mean total rare richness (veg. sites only)	Not measured	1.54





Eurasian Water Milfoil

- More than there was in 2005
- Still considered to be both bad and good
- Lots of management discussion to be had

Curly-leaf Pondweed and other Aquatic Invasive Plants

- CLP is present, but we don't know how much
- Also could be considered both bad and good
- Purple loosestrife, reed canary grass, and other non-native species are also likely present

Current Aquatic Plant Management

- 25-50 acres planned treatments annually
- Subject to restrictions put in place by the WDNR
 - Some distinction between native and non native plants made, but not much
- Since aquatic plants are limited, EWM is not considered all bad
- Chemicals are used
 - 2,4-D to treat plants like EWM, coontail, and waterweed, and lily pads
 - Endothal to treat plants like curly-leaf pondweed, small pondweed, and other pondweeds
 - Chelated Copper to treat algae
- Landowners use physical removal

How do you know if this is working? Ask yourselves...

- Do you know what role aquatic plants play in a lake?
- Are you protecting that which you already have?
- Are you successfully managing existing AIS in the lake?
- Are you adequately managing native plant species to provide nuisance and navigation relief?
- Do you actively monitor access points and the lake for the introduction of new AIS?
- Do you know what to do if a new AIS is found?
- Do you know what management alternatives are available?
- If you can answer yes to all these questions, do you think your neighbors can?



Aquatic Plant Management Planning Grant Application

- Submitted August 1, 2012 on behalf of the Lake Redstone Protection District
 - Requests \$9,968.00 from the state
 - Requires \$3,368.00 in sponsor match (LRPD)
- Solicits funds from the WDNR to complete a more extensive Aquatic Plant Management Plan for Lake Redstone
 - 5-yr Plan w/implementation
 - **Must be approved by the LRPD and the WDNR**
- Seeks Volunteer Involvement
 - 200 hrs of watercraft inspection
 - Provide AIS monitoring and CLP mapping in 2013
- Sponsors a "Lake Fair" in 2013

**The End
Questions?**

Appendix D

SEH/LRPD Agreement for Professional Services and Project Invoices

2/15/12
2115/7012
DLD

SHORT ELLIOTT HENDRICKSON INC.
Agreement for Professional Services

This Agreement is effective as of January 15, 2012 between Lake Redstone Protection District (Client) and Short Elliott Hendrickson Inc. (Consultant).

This Agreement authorizes and describes the scope, schedule, and payment conditions for Consultant's work on the Project described as: Aquatic Plant Management Planning.

Client's Authorized Representative: Priscilla Bondhus
Address: 1300 N. High Point Road
Middleton, WI 53562
Telephone: 608.827.5554 **e-mail:** pbondhus@charter.net

Project Manager: Dave Blumer
Address: 1701 W. Knapp Street, Suite B
Rice Lake, WI 54868
Telephone: 715.861.4925 **e-mail:** dblumer@sehinc.com

Scope: The Basic Services to be provided by Consultant as set forth herein is provided subject to the attached General Conditions of the Agreement for Professional Services (General Conditions Rev. 08.03.11), which is incorporated by reference herein and subject to Exhibits attached to this Agreement.

The Lake Redstone Protection District (LRPD) has agreed to contract with Short, Elliot, Hendrickson, Inc (SEH) to help guide them through the aquatic plant management planning process for Lake Redstone in Sauk County. The end result of this process will be a 5-yr Aquatic Plant Management (APM) Plan that addresses both invasive and beneficial aquatic plant species. The plan will consider the diversity of plant and other biological species found in the lake and provide practical and fiscally realistic management recommendations for maintaining the overall health and viability of Lake Redstone. Furthermore, the APM Plan will meet criteria required for approval and implementation established by the Wisconsin Department of Natural Resources (WDNR).

This agreement is for the first of several projects related to the completion of an APM Plan for Lake Redstone, and the implementation thereof. This project covers several tasks: 1) preparation of a small-scale lake management planning grant to support pre-APM planning, 2) APM pre-planning accounted for in the small-scale lake management planning grant application, 3) support for the completion of aquatic plant survey work in Lake Redstone, and 4) the preparation of a WDNR Aquatic Invasive Species Education, Prevention, and Planning grant application to be submitted by August 1, 2012 on behalf of the LRPD.

1. Task 1 – Preparation of a Small-scale Lake Management Planning grant application package (**\$250.00**)
 - a. A small scale lake management planning grant has already been prepared and submitted to the WDNR on February 1, 2012 on behalf of the LRPD. This grant application package was submitted by SEH in good faith that SEH would be compensated by the LRPD for the amount specified in this task.
2. Task 2 – APM pre-planning (**\$1500.00**)

- a. This task includes fees associated with at least two site visits to Lake Redstone to meet with representatives of the LRPD, present to their constituents, and to provide educational and informational materials related to the aquatic plant management planning process.
3. Task 3 – Aquatic plant survey support (**\$350.00**)
- a. SEH will provide support for point-intercept aquatic plant survey work completed by Endangered Resources Services (ERS), LLC (Matt Berg, Proprietor), in the form of making arrangements with ERS to complete the survey, reviewing survey results, and facilitating communication between ERS, WDNR, and the LRPD. ERS will complete two paper and digital copies of the final report and two sets of pressed and mounted plant “vouchers” from the lake. The LRPD will contract directly with ERS for the actual costs of the survey (\$3,250.00).
4. Task 4 – Aquatic Invasive Species Education, Prevention, and Planning grant application package (**\$1,290.00**)
- a. SEH will prepare an AIS education prevention and planning grant application package on behalf of the LRPD to be submitted to the WDNR on or before August 1, 2012. The purpose of this grant application package will be to request grant funding to help defray the costs of completing the aquatic plant management planning process started in this project.
 - b. 75% of the cost of this task will be billed once the grant application package has been submitted to the WDNR. The remaining 25% will only be billed if the grant application package is awarded by the WDNR to the LRPD. Should the grant application package not be awarded in the grant period for which it was originally submitted, SEH will revise the project and re-submit it during the next possible grant period for no additional fees. Should the LRPD and SEH agree not pursue re-submittal of the grant application package, the remaining 25% of this task will not be billed.

Schedule: All tasks associated with this project will be completed by December 31, 2012.

Payment: The lump sum fee for services in this project is \$3,390.00 including expenses and equipment. \$322.50 of this fee will not be charged until the grant application package prepared in Task 4 has been awarded by the WDNR.

Expenses: The following items involve expenditures made by Consultant employees or professional consultants on behalf of the Client and shall be paid for as described in this Agreement:

1. Transportation and travel expenses.
2. Lodging and meal expense connected with the Project.
3. Plots, Reports, plan and specification reproduction expenses.
4. Postage, handling and delivery.

The payment method, basis, frequency and other special conditions are set forth in attached Exhibit A-2.

This Agreement for Professional Services, attached General Conditions, Exhibits and any Attachments (collectively referred to as the “Agreement”) supersedes all prior contemporaneous oral or written agreements and represents the entire understanding between Client and Consultant with respect to the services to be provided by Consultant hereunder. In the event of a conflict between the documents, this document and the attached General Conditions shall take precedence over all other Exhibits unless noted below under “Other Terms and Conditions”. The Agreement for Professional Services and the General Conditions (including scope, schedule, fee and signatures) shall take precedence over attached Exhibits. This Agreement may not be amended except by written agreement signed by the authorized representatives of each party.

Short Elliott Hendrickson Inc.

By: Scott Weyandt
Scott Weyandt
Title: Principal

Lake Redstone Protection District

By: Jerry Mueen
Title: CHAIRMAN

SECTION IV – GENERAL CONSIDERATIONS

A. Standards of Performance

1. The standard of care for all professional engineering and related services performed or furnished by Consultant under this Agreement will be the care and skill ordinarily exercised by members of Consultant's profession practicing under similar circumstances at the same time and in the same locality. Consultant makes no warranties, express or implied, under this Agreement or otherwise, in connection with its services.
2. Consultant neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform the work in accordance with its construction contract or the construction documents prepared by Consultant. Client acknowledges Consultant will not direct, supervise or control the work of construction contractors or their subcontractors at the site or otherwise. Consultant shall have no authority over or responsibility for the contractor's acts or omissions, nor for its means, methods or procedures of construction. Consultant's services do not include review or evaluation of the Client's, contractor's or subcontractor's safety measures, or job site safety or furnishing or performing any of the Contractor's work.
3. If requested in the scope of a Supplemental Letter Agreement, then Consultant may provide an Opinion of Probable Construction Cost. Consultant's Opinions of Probable Construction Cost provided for herein are to be made on the basis of Consultant's experience and qualifications and represent Consultant's best judgment as a professional generally familiar with the industry. However, since Consultant has no control over the cost of labor, materials, equipment or service furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, Consultant cannot and does not guarantee that proposals, bids or actual construction cost will not vary from Opinions of Construction Cost prepared by Consultant. If Client wishes greater assurance as to probable Construction Cost, Client shall employ an independent cost estimator or negotiate additional services and fees with Consultant.

B. Indemnity for Environmental Issues

1. Consultant is not a user, generator, handler, operator, arranger, storer, transporter or disposer of hazardous or toxic substances, therefore the Client agrees to hold harmless, indemnify and defend Consultant and Consultant's officers, directors, subconsultant(s), employees and agents from and against any and all claims, losses, damages, liability and costs, including but not limited to costs of defense, arising out of or in any way connected with, the presence, discharge, release, or escape of hazardous or toxic substances, pollutants or contaminants of any kind at the site.

C. Limitations on Consultant's Liability

1. The Client hereby agrees that to the fullest extent permitted by law, Consultant's total liability to the Client for any and all injuries, claims, losses, expenses, or damages whatsoever arising out of or in any way related to the Project or this Agreement from any cause or causes including, but not limited to, Consultant's negligence, errors, omissions, strict liability, breach of contract or breach of warranty shall not exceed one million dollars (\$1,000,000). In the event Client desires limits of liability in excess of those provided in this paragraph, Client shall advise Consultant in writing and agree that Consultant's fee shall increase by 1% for each additional million dollars of liability limits, up to a maximum limit of liability of five million dollars (\$5,000,000).
2. Neither Party shall be liable to the other for consequential damages, including, without limitation, lost rentals, increased rental expenses, loss of use, loss of income, lost profit, financing, business and reputation and for loss of management or employee productivity, incurred by one another or their subsidiaries or successors, regardless of whether such damages are foreseeable and are caused by breach of contract, willful misconduct, negligent act or omission, or other wrongful act of either of them.
3. It is intended by the parties to this Agreement that Consultant's services shall not subject Consultant's employees, officers or directors to any personal legal exposure for the risks associated with this Agreement. The Client agrees that as the Client's sole and exclusive remedy, any claim, demand or suit shall be directed

and/or asserted only against Consultant, and not against any of Consultant's individual employees, officers or directors, and Client knowingly waives all such claims against Consultant individual employees, officers or directors.

D. Assignment

1. Neither party to this Agreement shall transfer, sublet or assign any rights under, or interests in, this Agreement or claims based on this Agreement without the prior written consent of the other party. Any assignment in violation of this subsection shall be null and void.

SECTION V – DISPUTE RESOLUTION

A. Mediation

1. Any dispute between Client and Consultant arising out of or relating to this Agreement or services provided under this Agreement, (except for unpaid invoices which are governed by Section III), shall be submitted to nonbinding mediation as a precondition to litigation unless the parties mutually agree otherwise. Mediation shall occur within 60 days of a written demand for mediation unless Consultant and Client mutually agree otherwise.

B. Litigation – Choice of Venue and Jurisdiction

1. Any dispute not settled through mediation shall be settled through litigation in the state where the Project at issue is located.

SECTION VI – INTELLECTUAL PROPERTY

A. Proprietary Information

1. All documents, including reports, drawings, calculations, specifications, CADD materials, computers software or hardware or other work product prepared by Consultant pursuant to this Agreement are Consultant's Instruments of Service ("Instruments of Service") and Consultant retains all ownership interests in Instruments of Service, including all available copyrights.
2. Consultant shall retain all of its rights in its proprietary information including, without limitation, its methodologies and methods of analysis, ideas, concepts, expressions, inventions, know how, methods, techniques, skills, knowledge and experience possessed by Consultant prior to, or acquired by Consultant during, the performance of this Agreement and the same shall not be deemed to be Work Product or Work for Hire and Consultant shall not be restricted in any way with respect thereto.

B. Client Use of Instruments of Service

1. Provided that Consultant has been paid in full for its services, Client shall have the right in the form of a license to use Instruments of Service resulting from Consultant's efforts on the Project. Consultant shall retain full rights to electronic data and the drawings, specifications, including those in electronic form, prepared by Consultant and its subconsultants and the right to reuse component information contained in them in the normal course of Consultant's professional activities. Consultant shall be deemed to be the author of such Instruments of Service, electronic data or documents, and shall be given appropriate credit in any public display of such Instruments of Service.
2. Records requests or requests for additional copies of Instruments of Services outside of the scope of services are available to Client subject to Consultant's current rate schedule.

C. Reuse of Documents

1. All Instruments of Service prepared by Consultant pursuant to this Agreement are not intended or represented to be suitable for reuse by the Client or others on extensions of the Project or on any other Project. Any reuse of the Instruments of Service without written consent or adaptation by Consultant for the specific purpose intended will be at the Client's sole risk and without liability or legal exposure to Consultant; and the Client shall release Consultant from all claims arising from such use. Client shall also defend, indemnify and hold harmless Consultant from all claims, damages, losses and expenses including attorneys' fees arising out of or resulting from reuse of Consultant documents without written consent.

General Conditions of the Agreement for Professional Services

SECTION I – SERVICES OF CONSULTANT

A. General

1. Consultant agrees to perform professional services as set forth in the Agreement for Professional Services or Supplemental Letter Agreement ("Basic Services"). Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Client or the Consultant. The Consultant's services under this Agreement are being performed solely for the Client's benefit, and no other party or entity shall have any claim against the Consultant because of this Agreement or the performance or nonperformance of services hereunder.

B. Schedule

1. Unless specific periods of time or dates for providing services are specified, Consultant's obligation to render services hereunder will be for a period which may reasonably be required for the completion of said services.
2. If Client has requested changes in the scope, extent, or character of the Project or the services to be provided by Consultant, the time of performance and compensation for Consultant's services shall be adjusted equitably. The Client agrees that Consultant is not responsible for damages arising directly or indirectly from delays beyond Consultant's control. If the delays resulting from such causes increase the cost or the time required by Consultant to perform its services in accordance with professional skill and care, then Consultant shall be entitled to a equitable adjustment in schedule and compensation.

C. Additional Services

1. If Consultant determines that any services it has been directed or requested to perform are beyond the scope as set forth in the Agreement or that, due to changed conditions or changes in the method or manner of administration of the Project, Consultant's effort required to perform its services under this Agreement exceeds the stated fee for Basic Services, then Consultant shall promptly notify the Client regarding the need for additional services. Upon notification and in the absence of a written objection, Consultant shall be entitled to additional compensation for the additional services, and to an extension of time for completion of additional services absent written objection by Client.
2. Additional services shall be billed in accord with agreed upon rates, or if not addressed, then at Consultant's standard rates.

D. Suspension and Termination

1. If Consultant's services are delayed or suspended in whole or in part by Client, or if Consultant's services are delayed by actions or inactions of others for more than 60 days through no fault of Consultant, then Consultant shall be entitled to either terminate its agreement upon 7 days written notice or, at its option, accept an equitable adjustment of rates and amounts of compensation provided for elsewhere in this Agreement to reflect reasonable costs incurred by Consultant.
2. This Agreement may be terminated by either party upon seven days written notice should the other party fail substantially to perform in accordance with its terms through no fault of the party initiating the termination.
3. This Agreement may be terminated by either party upon thirty days' written notice without cause. All provisions of this Agreement allocating responsibility or liability between the Client and Consultant shall survive the completion of the services hereunder and/or the termination of this Agreement.
4. In the event of termination, Consultant shall be compensated for services performed prior to termination date, including charges for expenses and equipment costs then due and all termination expenses.

SECTION II – CLIENT RESPONSIBILITIES

A. General

1. The Client shall, in proper time and sequence and where appropriate to the Project, at no expense to Consultant, provide full information as to Client's requirements for the services provided by Consultant and access to all public and private lands required for Consultant to perform its services.
2. The Consultant is not a municipal advisor and therefore Client shall provide its own legal, accounting, financial and insurance counseling and other special services as may be required for the Project. Client shall provide to Consultant all data (and professional interpretations thereof) prepared by or services performed by others pertinent to Consultant's services, including but not limited to, previous reports; sub-surface explorations; laboratory tests and inspection of samples; environmental assessment and impact statements, surveys, property descriptions; zoning, deed and other land use restrictions; as-built drawings, electronic data base and maps. The costs associated with correcting, creating or recreating any data that is provided by the Client that contains inaccurate or unusable information shall be the responsibility of the Client.
3. Client shall provide prompt written notice to Consultant whenever the Client observes or otherwise becomes aware of any changes in the Project or any defect in Consultant's services. Client shall promptly examine all studies, reports, sketches, opinions of construction costs, specifications, drawings, proposals, change orders, supplemental agreements and other documents presented by Consultant and render the necessary decisions and instructions so that Consultant may provide services in a timely manner.
4. Client shall require all utilities with facilities within the Client's Project site to locate and mark said utilities upon request, relocate and/or protect said utilities as determined necessary to accommodate work of the Project, submit a schedule of the necessary relocation/protection activities to the Client for review and comply with agreed upon schedule. Consultant shall not be liable for damages which arise out of Consultant's reasonable reliance on the information or services furnished by utilities to Client or others hired by Client.
5. Consultant shall be entitled to rely on the accuracy and completeness of information or services furnished by the Client or others employed by the Client and shall not be liable for damages arising from reasonable reliance on such materials. Consultant shall promptly notify the Client if Consultant discovers that any information or services furnished by the Client is in error or is inadequate for its purpose.

SECTION III – PAYMENTS

A. Invoices

1. Undisputed portions of invoices are due and payable within 30 days. Client must notify Consultant in writing of any disputed items within 15 days from receipt of invoice. Amounts due Consultant will be increased at the rate of 1.0% per month (or the maximum rate of interest permitted by law, if less) for invoices 30 days past due. Consultant reserves the right to retain Instruments of Service until all invoices are paid in full. Consultant will not be liable for any claims of loss, delay, or damage by Client for reason of withholding services or Instruments of Service until all invoices are paid in full. Consultant shall be entitled to recover all reasonable costs and disbursements, including reasonable attorney's fees, incurred in connection with collecting amounts owed by Client.
2. Should taxes, fees or costs be imposed, they shall be in addition to Consultant's agreed upon compensation.
3. Notwithstanding anything to the contrary herein, Consultant may pursue collection of past due invoices in small claims court or through the American Arbitration Association Construction Industry Rules without the necessity of any mediation proceedings and the Client agrees to be bound by such venue.

**Exhibit A-2
to Agreement for Professional Services
Between Lake Redstone Protection District (Client)
and
Short Elliott Hendrickson Inc. (Consultant)
Dated January 15, 2012**

**Payments to Consultant for Services and Expenses
Using the Lump Sum Basis Option**

The Agreement for Professional Services is amended and supplemented to include the following agreement of the parties:

A. Lump Sum Basis Option

The Client and Consultant select the Lump Sum Basis for Payment for services provided by Consultant. During the course of providing its services, Consultant shall be paid monthly based on Consultant's estimate of the percentage of the work completed. Necessary expenses and equipment are provided as a part of Consultant's services and are included in the initial Lump Sum amount for the agreed upon Scope of Work. Total payments to Consultant for work covered by the Lump Sum Agreement shall not exceed the lump sum amount without written authorization from the Client.

The Lump Sum amount includes compensation for Consultant's services and the services of Consultant's Consultants, if any for the agreed upon Scope of Work. Appropriate amounts have been incorporated in the initial Lump Sum to account for labor, overhead, profit, expenses and equipment charges. The Client agrees to pay for other additional services, equipment, and expenses that may become necessary by amendment to complete Consultant's services at their normal charge out rates as published by Consultant or as available commercially.

B. Expenses Not Included in the Lump Sum

The following items involve expenditures made by Consultant employees or professional consultants on behalf of the Client and shall be paid for as described in this Agreement.

1. Expense of overtime work requiring higher than regular rates, if authorized in advance by the Client.
2. Other special expenses required in connection with the Project.

The Client shall pay Consultant monthly for expenses not included in the Lump Sum amount.

p:\ko\Waker\118792\2-proj-mgmt\exhibit a2 lrp.docx

Project Nui Draft Invoic	Customer	Agreement	Invoice Amount	Invoice Status	Bill Through	Invoice Cla:	AR Invoice Num	Invoice Date
119727	1 Lake Redstone Protection District	119727	\$593.25	Accepted in Receivable	31-Mar-12	Invoice	255106	10-Apr-12
119727	2 Lake Redstone Protection District	119727	\$1,610.25	Accepted in Receivable	30-Jun-12	Invoice	258151	10-Jul-12
119727	3 Lake Redstone Protection District	119727	\$810.21	Accepted in Receivable	31-Jul-12	Invoice	259181	14-Aug-12
119727	4 Lake Redstone Protection District	119727	\$342.39	Accepted in Receivable	31-Aug-12	Invoice	260237	11-Sep-12
119727	5 Lake Redstone Protection District	119727	\$33.90	Accepted in Receivable	30-Sep-12	Invoice	261203	8-Oct-12
			\$3,390.00					

Appendix E

Original Small-scale Project Description and Budget



Matthew S. Berg, Research Biologist
dfly@centurytel.net
 572 N. Day Road
 St. Croix Falls, WI 54024
 715-483-BUGS (2847) home 715-338-7502 cell



*Specializing in Aquatic Plant, Mussel, Dragonfly and Bird Surveys
 Habitat Assessment and Endangered Species Mitigation*

This document is to serve as an itemized contract proposal between Short, Elliot, Hendrickson Inc. (SEHI) on behalf of the Lake Redstone Protection District (LRPD) and Endangered Resource Services, LLC (ERS). At the request of SEHI/LRPD, we propose to complete a full Point Intercept Aquatic Plant Survey using the methods outlined by the Wisconsin Department of Natural Resources on Lake Redstone in July/August 2012.

Details of the contract are as follows:

A. Collection and Preparation of 2 sets of herbarium voucher specimens (1 mounted set deposited with the WDNR and 1 mounted set retained by the lake association/SEHI): + 1 person (preparation) for 20 hours @ \$25/hr.	\$ 500
B. Point/Intercept Aquatic Plant Survey in July/August 2 person crew for 2 days (20 hours/day at \$75/hr)	\$1,500
C. Statistical Analysis of Data Including Plant Species Maps Generated in ArcView 1 person for 20 hours @ \$25/hr	\$ 500
D. Final Report of Survey 1 person for 30 hours @ \$25/hr	\$ 750
<hr/>	
Total Cost	\$3,250

- A. On the first day of the total species point intercept aquatic plant survey in July/August, a rapid boat survey of the lake will be conducted to gather voucher specimens of all plants. The best specimens of all plants collected will be identified and preserved using methods established by the WDNR. All specimens will be mounted on high grade herbarium paper. One set will go to the state herbarium in Stevens Point while the other will be presented to the LRPD along with the final report.
- B. Based on the sample grid provided by Michelle Nault, WDNR, there will be 966 survey points on Lake Redstone. Depending on conditions, density and diversity of plant community, etc. the survey will likely take about 2 days for a two person crew using the standard methods as outlined by the WDNR.
- C. All data collected in the field will be entered into an Excel spreadsheet, and uploaded into ArcView for the purpose of generating species distribution and habitat maps. Each lake will be analyzed separately. All ArcView files will be burned to a cd and presented to SEHI, LRPD and the WDNR as part of the final report. This data may be used in any further lake planning as needed by LRPD now or in the future, or SEHI/the WDNR to assist LRPD to that end. This data remains the intellectual property of ERS, and may not be sold, published or distributed to any party other than SEHI, LRPD or the WDNR without the expressed written consent of ERS.
- D. A final report that includes general background information about the watershed, a detailed explanation of the methods used, highlights of pertinent results, and suggestions for the lake association to consider as they move forward in the management of their resource will be included in the body of the paper. Appendices will include copies of data sheets, maps for all habitat variables measured, maps for all plant species found, supplemental information on exotic species and a copy of all raw data in spreadsheet form.

Payment in full is expected approximately 30 days following the delivery of the final report by ERS, and the satisfied acceptance of said report by SEHI/LRPD and the WDNR. It is understood by both parties that the acceptance of the final report by SEHI/LRPD/WDNR may take time due to unavoidable 3rd party time constraints tied to availability of reviewing board members, grant funds, etc. Both parties further understand that a good faith effort will be made to bring the contract to completion as soon as possible. If payment will be later than 30 days past delivery/acceptance of the final report due to unexpected 3rd party constraints, it is requested that SEHI/LRPD notify ERS.

Signature below indicates that both parties understand the services to be rendered at the costs outlined, and they agree to all provisions as stated. No change to this contract shall be made without written approval and acceptance by both parties. Furthermore, WDNR approval and input will be sought in all decisions moving forward to facilitate grant compliance, and avoid unnecessary work/charges.



12/6/2011

 Matthew S. Berg
 Endangered Resource Services, LLC

 Date:

 Dave Blumer
 SEHI/Lake Redstone Protection District

 Date:

1.0 Description of Project Area

Lake Redstone is a 650 acre impound on Big Creek, a tributary to the Baraboo River, near La Valle, WI in Sauk County. Several aquatic invasive plant species (AIS) have been identified in Lake Redstone including Eurasian water milfoil (EWM), curly-leaf pondweed (CLP), and pink water lily. Management to control EWM and CLP has been completed in Lake Redstone. The most recent aquatic plant survey occurred in 2005, and was conducted by WDNR personnel. At that time, 11 different species of plants were identified in the lake. Coontail, common waterweed, and small pondweed were the most abundant native plant species in 2005.

2.0 Description of Problem to be Addressed by Project

In early 2008, the WDNR completed a 3-yr Critical Habitat Study on Lake Redstone. Redstone was chosen to complete a critical habitat study for two main reasons: 1) to protect areas within the lake that are most important for preserving the character and qualities of the lake; and 2) to preserve the places of special aesthetic beauty for the enjoyment of lake residents and visitors (Sefton & Graham 2008). From this study, 20 critical habitat areas were identified around the lake. These areas were designated critical habitat for several reasons including fish and wildlife habitat necessary for breeding, nesting, nursery, and feeding; plant communities and physical features that help protect water quality; and reaches of bank, shore or bed which are predominately natural in appearance or that screen man-made or artificial features and have unique natural scenic beauty (Sefton & Graham 2008).

The Lake Redstone Protection District (LRPD) wishes to develop a 5-yr APM Plan that addresses both invasive and beneficial aquatic plant species. This project provides for initial actions required to do that.

3.0 Discussion of Project Goals and Objectives

There are two primary goals to this project. First, the LRPD wishes to learn more about the process involved to create an aquatic plant management plan (APMP). The LRPD and its membership have limited knowledge regarding the requirements of an APMP; state grant funding that may be available to help offset the costs of aquatic plant management planning, and the reasons, activities, and methods behind the completion of an APMP.

The second goal is to collect basic aquatic plant information about Lake Redstone by completing a mid-season, whole-lake, aquatic plant survey. This survey, conducted by an SEH sub-consultant will identify the diversity, distribution, and density of aquatic plants in Lake Redstone. The methods used to complete this survey are detailed in the next section.

4.0 Description of Methods and Activities

4.1 Task 1- Project Support and Understanding

SEH, through the Project Manager for this project, will meet with the LRPD Board and membership a minimum of two times during the time period from April 1-September 1, 2012. The purpose of these meetings and additional discussions will be to 1) discuss details about the aquatic plant management planning process: what is being done and why, 2) answer questions and address concerns that may come up during the initial stages of planning, 3) help develop partnerships to support the aquatic plant management process, and 4) prepare the LRPD for a possible request for Aquatic Invasive Species Education, Prevention, and Planning grant funds from the WDNR in August 2012 to complete aquatic plant management activities. By combining the project for which this current description is written, with a new project in August of 2012, the LRPD may be able to offset as much as 75% of the expected costs of the development of a formal Aquatic Plant Management Plan for Lake Redstone.

Furthermore, they will gain a better understanding of the role aquatic plant management planning plays in the overall goal of making improvements to Lake Redstone that benefit property owners, lake users, and the lake's natural resources.

4.2 Task 2 - Mid-season, Aquatic Plant Point-intercept Survey

Endangered Resource Services, LLC (ERS) (a sub-consultant of Short Elliot Hendrickson, Inc (SEH)) will complete a full Point Intercept Aquatic Plant Survey using the methods outlined by the Wisconsin Department of Natural Resources (WDNR) on Lake Redstone in July/August 2012. Based on the sample grid provided by the WDNR, there will be 966 survey points on Lake Redstone. Depending on conditions, density and diversity of plant community, etc. the survey will likely take about 2 days for a two person crew using the standard methods as outlined by the WDNR.

On the first day of the total species point intercept aquatic plant survey in July/August, a rapid boat survey of the lake will be conducted to gather voucher specimens of all plants. The best specimens of all plants collected will be identified and preserved using methods established by the WDNR. All specimens will be mounted on high grade herbarium paper. One set will go to the state herbarium in Stevens Point while the other will be presented to the Lake Redstone Protection District (LRPD) along with the final report.

All data collected in the field will be entered into an Excel spreadsheet, and uploaded into Arc View for the purpose of generating species distribution and habitat maps. The resulting maps along with shape files, acreage, and densities will immediately be presented to SEH/LRPD. These maps will include depths for all points to allow the production of a more reliable bathymetric map of the lake.

All Arc View files will be burned to a cd and presented to SEH, LRPD and the WDNR as part of the final report. This data may be used in any further lake planning as needed by LRPD or SEH/WDNR to assist LRPD to that end, now or in the future.

5.0 Description of Project Products or Deliverables

Task 1 – Planning records will be kept of all time spent with the LRPD, including documents created for them, presentations, and partner contacts. Records of public input will be kept and referred to in future aquatic plant management planning activities.

Task 2 - A final report that includes general background information about the watershed, a detailed explanation of the methods used, highlights of pertinent results and suggestions for the lake association to consider as they move forward in the management of their resource will be included in the body of the paper. Appendices will include copies of data sheets, maps for all habitat variables measured, maps for all plant species found, supplemental information on exotic species and a copy of all raw data in spreadsheet form. The final plant survey report will be completed by January 31, 2013.

This project does not complete an Aquatic Plant Management Plan for Lake Redstone, but does prepare LRPD for that task.

6.0 Description of Existing and Proposed Partnerships

SEH, working with the LRPD, will continue to foster local partnerships for the purpose of support aquatic plant management planning and other aspects of lake management planning. The LRPD has been working closely with the WDNR, Sauk County Conservation, Planning, and Zoning Department, and UW-Extension services to help navigate through the lake management planning process. During this project, other local partnerships will be discussed.

In the end it is expected that the LRPD will have Resource Professional, Lake Resident, and Community Support for future planning and implementation. Aquatic plant management planning information will also be shared with the Lake Redstone Property Owners Association.

7.0 Discussion of Role of Project in Planning and/or Lake Management

In November 2011, the LRPD sent out a Request for a Proposal to complete aquatic plant management planning for Lake Redstone. SEH was chosen from several different proposals. The SEH proposal included costs for aquatic plant survey work, drafting an APM plan, and preparing grant applications in support of the efforts to be undertaken. This project is the first in what will likely be two grant applications. A second grant application (probably AIS Education or Lake Management Planning) will be applied for by the LRPD in August 2012 to complete the Aquatic Plant Management Planning process. After having completed this project, the LRPD and its members and partners, will have a much clearer understanding of the plant management planning process, and be more prepared to participate in the process.

8.0 Timetable for Implementation of Key Activities

It is expected that a second grant application will be submitted to the WDNR on behalf of the LRPD in August 2012 to complete the aquatic plant management process. As such, the Project Support and Understanding portion of this project will be completed by that time. Final results from the point-intercept aquatic plant survey will not be expected until the end of 2012, with a Final Report due by January 31, 2013.

The second grant application will be submitted in August 2012, with the aquatic plant management process completed by April 30, 2013, assuming the second grant is awarded.

9.0 Plan for Sharing Project Results

All results from this project will be shared with the LRPD and WDNR. Two paper copies of the Aquatic Plant Survey Report, accompanied by a digital copy to include all pertinent planning documents will be prepared and distributed. Two sets of aquatic plant vouchers will be provided, one for the LRPD, and one for the WDNR.

10.0 References

Sefton, Donna and Graham, Susan. 2008. Designation of Critical Habitat, Lake Redstone, Sauk County, Wisconsin. Wisconsin Department of Natural Resources. 100 pp.

11.0 Final Request for Small-scale Lake Management Planning Grant Funds

On behalf of the Lake Redstone Protection District, please accept this request for project support through the small-scale, lake management planning grant program. Should any questions arise, please do not hesitate to contact either myself or the authorized representative of the LRPD.

Thank You.

Dave Blumer | Lake Scientist
SEH | 1701 West Knapp Street, Suite B | Rice Lake, WI 54868
715.861.4925 direct | 715.651.7174 cell | 715.234.4069 fax
dblumer@sehinc.com
www.sehinc.com
SEH—Building a Better World for All of Us™

Lake Redstone Protection District - February 2012 Small-scale Lake Mangement Planning Grant Application

Mid-season Aquatic Plant Point-intercept Survey of Lake Redstone

Task	Sub-task	SEH		Expenditures		Sponsor			Total	Comments
		Time	Value	Who, What	Value	Time	Value	Donated		
Mid-season Point-intercept Survey	Field Work			ERS	\$2,000.00				\$2,000.00	ERS refers to Endangered Resources Services, LLC, an SEH sub-consultant
	Maps and Final Report			ERS	\$1,250.00			(\$250.00)	\$1,000.00	
	Support and Review		\$350.00					(\$350.00)	\$0.00	Support for ERS and final report review
Project Support and Understanding	build project support and understanding within the board and community for aquatic plant management planning									Meet with the board and membership at least two times between April 1 and Sept 1, 2012
			\$1,500.00					(\$1,500.00)	\$0.00	
			\$1,850.00		\$3,250.00		\$0.00	(\$2,100.00)	\$3,000.00	

