# Small-Scale Lake Management Planning Grant Proposal

Waterbody:	Wilson Lake
Project name:	Wilson Lake 2002 Aquatic Plant Survey
Applicant:	Kusel- Wilson-Round Lakes Protection and Rehabilitation District
Representative:	Tom Pavlat W5708 Archer Lane Wild Rose, WI 54984 920-622-3124

Consultant: Aquatic Biologists, Inc.

Project contact: Chad Cason 426 N.W. Cumberland St. Berlin, WI 54923 920-361-4088

**January 8, 2002** 

# Introduction

Wilson Lake is located in Springwater Township, Waushara County. Two separate management units govern this 81-acre water body – the Kusel-Wilson-Round Lakes Protection and Rehabilitation District and the Springwater Improvement Association. With two public boat launches and one private campground, the lake receives heavy recreational use. Wilson Lake has a maximum depth of 14 feet and a mean depth of only 6 feet. Bottom substrates are predominantly organic muck. Because of these features the lake has had a history of nuisance aquatic plant growth. The recent invasion of Eurasian watermilfoil (*Myriophyllum spicatum*), however, has made aquatic plant management a primary concern for the lake.

In order to address aquatic plant management issues, the Kusel-Wilson-Round Lakes Protection and Rehabilitation District retained Aquatic Biologists, Inc. to conduct a baseline aquatic plant survey, and to prepare a five-year aquatic plant management plan for Wilson Lake. This report, entitled *Management of aquatic plants in Wilson Lake 2001-2006*, outlined a course of action for controlling Eurasian watermilfoil using herbicides. By August 2001, a total of 18 acres of Eurasian watermilfoil had been treated in the lake. A plant survey conducted during September 2001 found that Eurasian watermilfoil distribution had been reduced by 94.5%, and that no native species were negatively affected.

The next element of the management plan includes conducting another whole-lake aquatic plant survey in 2002, and preparing of a report that updates the Lake Management Plan by summarizing findings and providing direction for future management efforts.

The Lake District is again seeking funding from the Department of Natural Resources' Small Scale Lake Planning Grant Program in order to complete this work.

# **Project Goals**

The purposes of this project are: 1) to monitor impacts to water quality and the aquatic plant community that have developed in response to recent management efforts, 2) to facilitate, inform and direct future management efforts, and 3) to complete and update the Lake's Management Plan.

Because Eurasian watermilfoil control is a relatively new management need for area lakes, the Lake District as well as the Springwater Improvement Association are further interested in the results of this project for its applicability to other lakes they manage.

## Methods

The work elements of this project will entail 1) conducting a whole-lake aquatic plant survey, 2) mapping the distribution of Eurasian water milfoil, 3) collecting water quality data, and 4) preparing an annual report.

## plant survey

The aquatic plant survey will be used to determine the distribution, percent frequency and composition of species encountered. This survey will reproduce the methods used during the 2000 and 2001 surveys, as follows: a series of twelve transects will be mapped out on the lake. The lake is divided into two basins and a temporary buoy will be placed in the center of each basin. From each buoy transects will be radiate to shore at 60 degrees intervals. Plant samples will be collected at four plots along each of the twelve transects. Plots are established by estimating a 10-foot diameter circle around the anchored boat. The circular plot is then divided into four quarters, with each quarter representing a quadrant. Plants are then collected in each quadrant by tossing out a tethered short-toothed rake and hauling it into the boat. A total of 192 quadrants will be sampled. From each quadrant, all plants collected will be identified to genus, and to species whenever possible. Data collected will include species composition, % frequency and relative abundance. Paired *t*-tests for two sample means will be used to analyze data sets to determine whether statistically significant differences exist between surveys.

#### milfoil mapping

The location of Eurasian water milfoil beds will be verified visually and by rake sampling. Minimum and maximum depths of the beds will be established with a weighted tape measure. The beds will then be then drawn into a lake map at the appropriate depth contours and by using shoreline features as landmarks. The lake map will then be superimposed upon an acreage grid to determine the area of each Eurasian watermilfoil bed.

#### Water quality monitoring

Water quality assessments will be done concurrently with the plant survey and will include:

- Secchi disc depths
- Dissolved oxygen profiles
- Temperature profiles
- pH

## annual report

The annual report will serve to update Wilson Lake's Aquatic Plant Management Plan and provide direction for future management efforts. This report will present the results of the 2002 plant and water quality survey. It will describe management efforts that have been conducted on Wilson Lake to date and discuss their impacts to the lake ecology as well as the effectiveness in meeting stated goals. The completed annual report will be disseminated to Lake Residents, Lake Management units, the Department of Natural Resources, and other interested parties.

## **Project costs**

Field work for plant survey and milfoil mapping	\$1400
Mileage	\$60
Data analysis	\$350
Preparation of annual report	\$400
Printing charges	<u>\$40</u>
Total	\$2250

The Kusel- Wilson-Round Lakes Protection and Rehabilitation District is requesting a %75 cost share from the State, totaling \$1687.50. The Lake District's 25% share then will be \$562.50.

## Timeframe

The aquatic plant survey, water quality monitoring and milfoil mapping will be completed during May 2002. By conducting fieldwork at this time of year, any Eurasian watermilfoil found can be treated as prescribed by the Aquatic Plant Management Plan. Data analysis and report writing will be done during June and July. The annual report will be completed and disseminated by July 31, 2002. All project activities will be completed by December 31, 2002.

## **Project deliverables**

The most important result of this project will be data from the plant survey work that supports *Management of aquatic plants in Wilson Lake 2001-2006*. The annual report will communicate the results of the survey to Lake Residents and other supporting organizations, and will recommend any changes to the plan that are indicated by the survey findings.

Prior Grant Award(s)

**No** 

Fiscal Year(s)

300

Form 8700-283 (R 3/01)

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Notice: Use of this form is required by the DNR for any application filed pursuant to ch. NR 190 or 191, Wis. Adm. Code. Personal information (PI data) collected on this form, including such data as your name, address, phone number, etc., will be used for management and enforcement of DNR programs, and is not intended to be used for any other purpose. Information will be made accessible to requesters under Wisconsin's Open Records laws (s. 19.32-19.39, Wis. Stats.) and requirements.

Section I: Application Type				n an	
Lake Management Planning Grant		Lake Management Protect	tion Grant		
Check one:		Check one:			
Large-scale planning grant		Wetland restoration			
Small-scale planning grant		r			
Check one:					
Self-help lake trend monitoring package					
		LI Land or easement acqu	isition		
	nroiant				
	hioleer				
Section II: Applicant Information					
Applicant Kusel-Wilson-Kound Lakes	ь. • • (	Type of Eligible Applicant			
Protection and Kehabilitation	District		Other Gov	vernmental Unit	
Lake Name Si	ize in Acres	City Sanitary District	Non Profit	Conservation	
	81		Organizat	ion	
Project County/Township/Section/Range	<b></b>		_		
Waushara T.ZON. R.IIE. Sec.	27		· }		
Authorized Representative Named by Resolution		Project Contact Name			
Tom Pavlat		Chad Cason			
Authorized Representative Title		Project Contact Title			
Wilson Lake Commissioner		Biologist / Consultant			
Address		Address	1 1 -		
W5108 Archer Lane		426 N.W. CUMBE	erland S		
City State ZIP Co	de	City	State ZIP C	ode	
Wild Kose WI 54	984	Berlin	WI 54	4923	
Daytime Telephone No. (Incl area code)		Daytime Telephone No.(Incl area code) Even	ing Telephone N	O.(incl area code)	
920-622-3124		920-361-4088	Same		
Evening Telephone No. (Incl area code)		E-Mail Address			
Same		ccason@vbe	. com		
Section III: Project Information					
Project Title	A (	6. 1	Proposed End	ing Date	
Wilson Lake 2002	Aquat	ic Plant Survey	Dec 31,	2002	
Other Management Units Around Lake	Letter of Support	Other Management Units Arou	nd Lake	Letter of Support	
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3.		6.		<u> </u>	
	For DNR	lise Only			
Application Type Date Received	Date Reviewe	d (LC/RC) Lake Coordinator Approval	/ Date /	1	
121-Sm. A 1-30-02		Aby Small	a 213	10/07_	
Waterbody ID# Access	Envi	ronmental Grants Specialist Approval / Date	<u>}/</u> *		
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Eligible Project		ect Priority Bank			
			THE REPORT OF THE PARTY OF THE	COLUMN STATES	

Amount Received To Date

Project Awarded

No

3

## Lake Management Grant Application

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Section IV: Lake Access		
Number of Public Vehicle Trailer Parking Spaces Available at Public Access Sites:		
Number of Public Access Sites on Lake Including Boat Launches and Walk-ins		
Section V: Cost Estimate and Grant Request		
	Project Costs	
	Column 1 Cash Costs	Column 2 Donated Value
Small-scale self-help monitoring package (skip lines 1-13)		
1. Salaries, wages and employee benefits		
2. Consulting services	2,250	
3. Purchased servicesprinting and mailing		
4. Other purchased services (specify):		
5. Plant material		
6. Supplies (specify)		
7. Depreciation on equipment		
8. Hourly equipment use charges		
9. State Lab of Hygiene (SLOH) Costs		
10. Non-SLOH Lab Costs		
11. Land or easement acquisition value		
12. Associated acquisition costs		
13. Other (specify)		
14. Subtotals (sum each column)	2,250	
15. Total Project Cost Estimate (sum of column 1 plus sum of column 2)	\$2,2	50.00
16. State Share Requested*	\$ 1,68	37.50
*Up to 75% of total costs may be requested, subject to the following maximum grant amounts:		

Large-scale lake planning projects--up to \$10, 000
 Small-scale lake planning projects--up to \$3,000

Lake classification and regulation or ordinance development projects--up to \$50,000

• Lake protection projects (other than lake classification and regulation or ordinance development projects)--up to \$200,000

## Section VI: Attachments (check all that are included)

#### A. For all applicants:

- 1. Authorizing resolution
- 2. Letters of support (on File)
- 3. Map of project location and boundaries
- 4. Itemized breakdown of expenses
  - 5. For projects that entail sending samples to the State Laboratory of Hygiene (SLOH) only: a completed SLOH Projected
    Cost Form
- 6. Project scope/description:
  - a. Description of project area
  - b. Description of problem to be addressed by project
  - C. Discussion of project goals and objectives
    - $\leq$  d. Description of methods and activities
  - L e. Description of project products or deliverables
  - I. Description of data to be collected, if applicable

<sup>2</sup> age	3	of	3
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]	Section VI: Attachments, continued		
	g. Description of existing and proposed partnerships		
( <sup>-</sup>	h. Discussion of role of project in planning and/or management of	lake	
N.	i. Timetable for implementation of key activities		
	j. Plan for sharing project results		
	k. Other information in support of project not described above		
٨	B. For applicants that are Lake Management Organizations (LMOs) or Non-	profit Conservation Organizations (	NCOs):
- C	1. For first time applicant LMOs only: A completed Form 8700-226 (Lake	Association Organizational Applicatio	n) Is a subscription
0/111	and Bylaws	on letter and copies of your Articles of I	ncorporation
	3. List of national and/or statewide organizations with which you are affili	ated	
	4. List of board members' names, including municipality and county of re	sidence. Designate officers	
	5. Documentation of current financial status		
	6. For land or easement acquisition projects: Detailed description of you	r organization's land management exp	erience
$\vee$	7. Brochures, newsletters, annual reports or other information about you	r organization	
	C. Wetland Restoration Projects:		
	1. Deed, easement, or land control agreement		
	2. Preliminary engineering plans		
	3. Water regulatory permits		
	D. Ordinance Development Projects:		
	1. Inventory of applicable existing ordinances		
	2. Description of resources each jurisdiction allocates to enforcement		
	3. Preliminary surveys		
	E. Lake improvement Projects:		
ť,	2. Weter regulatory permits		
	E l and or essement acquisition projects:		
	1. DNB Form 1800-1 (Environmental Hazards Assessment Form)		
	2. Legal description of the property		
	3. Project location boundary map		
	4. Property or easement appraisal (if not previously submitted to the Dep	partment)	
	5. If escrow closing, the title insurance commitment	, ,	
	6. Evidence of compliance with Uniform Relocation Act requirements, if a	applicable	
	7. Agricultural Impact Statement, if applicable		
	8. Status of acquisition negotiations, including expected time frame for cl	osing	
	9. A land management plan		
	a. Full description of property and conditions		
	b. Description of current and proposed uses of property and adjoi	ning properties	
	c. Management requirements for property		
	d. If roads, piers or grading are proposed, a topographic survey w	ith feature locations, and design cross	sections
	Section VII: Certification		
	I certify that information in this application and all its attachments are true and co Statutes.	rrect and in conformity with applicable	Wis.
Ī	Print/Type Name of Authorized Representative	of Authorized Representative	2
	740mas J. Kallat W	ilsonlake Keptese	intative
1	Signature of Authorized Representative Date	Signed	····
<u> </u>	Unomon & Oawlat /	-21-02	
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#### F&M BANK-WISCONSIN Fourth Street Plaza Kaukauna WI 54130

Last statement: November 30, 2001 This statement: December 31, 2001 Total days in statement period: 31

KUSEL WILSON ROUND LAKE SANITARY DIST ROGER JANSEN TREAS W5699 JANSEN DR WILD ROSE WI 54984-9020 Page 1 of 1 4518393634 (2)

Direct inquiries to: 800 806-1692

F&M Bank-Wisconsin Fourth Street Plaza Kaukauna WI 54130

## Money Market Checking-Business

<u>11-30</u>

9,283.89

12-12

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Account number Enclosures Average balance Avg collected bala Interest paid year	nce to date	4518393634 2 \$9,149.25 \$9,149.00 \$212.56	Beginning balance Total additions Total subtractions Ending balance		\$9,283.89 3.89 295.14 \$ 8,992.64
CHECKS					
Number Date	A	nount	Number	Date	Amount
1062 12-12		204.14	1063	12-31	91.00
CREDITS					
Date Description	n				Additions
12-31 ' Interest C	redit				3.89
DAILY BALANCES					
Date A	lmount [	)ate	Amount	Date	Amount

9,079.75

12-31

8,992.64

Thank you for banking with F&M Bank-Wisconsin