

Notice: Application is hereby made to the Wisconsin Department of Natural Resources, Bureau of Watershed Management for grant assistance consistent with s. 281.66, Wis. Stats., and Chapter NR 155, Wis. Adm. Code. Collection of this information is authorized under the authority of s. 281.66, Wis. Stats. The information contained in this form will be used for program budget analysis and project evaluation in the Urban Nonpoint Source Water Pollution Abatement and Storm Water Management Grant Program. Personally identifiable information collected will be used for program administration and may be made available to requesters as required under Wisconsin's Open Records Law [ss. 19.31 - 19.39, Wis. Stats.]. *Unless otherwise noted, all citations refer to Wisconsin Administrative Code.*

Instructions: Complete all sections as applicable.

Applicant Information

Governmental Unit Applying: (name & type) (example: Madison, Town of)
 Mukwonago, Village of

Name of Authorized Representative (First, Last) Mr. Bernard Kahl			Name of Governmental Contact Person (First Last) (if different) same		
Title Administrator/Clerk-Treasurer			Title		
Area Code + Telephone Number (262) 363-6420			Area Code + Telephone Number		
Area Code + Fax Number (262) 363-6425			Area Code + Fax Number		
E-Mail Address bkahl@villageofmukwonago.com			E-Mail Address		
Mailing Address - Street or Route P. O. Box 206			Mailing Address - Street or Route		
City Mukwonago	State WI	Zip Code 53149	City	State	Zip Code

Consulting Firm Name (if applicable)
 Ruekert/Mielke

Consulting Contact Person Name
 Jonathan P. Cameron

Title
 Financial Analyst

Area Code + Telephone Number (262) 542-5733			DNR Use Only		
Area Code + Fax Number (262) 542-5631					
E-Mail Address jcameron@ruekert-mielke.com					
Mailing Address - Street or Route W233 N2080 Ridgeview Parkway					
City Waukesha	State WI	Zip Code 53188			

Project Information

A. Project Name

Village of Mukwonago Storm Water Utility Feasibility Study

This document was drafted by the Department of Natural Resources.

UNPS&SW Grant Project Name Village of Mukwonago Storm Water Utility Feasibility Study
--

Project Information (continued)

B. Project Area Location

County: Waukesha & Walworth Counties

Minor Civil Division (city, village, town, etc.-example: Wrightstown, Village of)	Township (N)	Range (E/W)	Section
Mukwonago, Village Of	5N	18E	22-27
Mukwonago, Village Of	5N	18E	35-36

Please identify the latitude and longitude of a point located approximately in the center of the planning area, and select the "Method for Determining" the center point.				
				Method for Determining (check one)
	Degrees	Minutes	Seconds	<input type="checkbox"/> GPS <input checked="" type="checkbox"/> DNR WebView or Surface Water Data Viewer <input type="checkbox"/> Other (specify):
Center Point Latitude (N)	42	51	54N	
Center Point Longitude (W)	88	19	14W	

C. Project Summary and Description

See Attached page 12.

D. Watershed and Waterbody (see Attachment A)				
Watershed Name	Township Name (for respective Town/Range/ Section, listed above)	Watershed Code (for respective Town/Range/ Section, listed above)	% of Project Area (for respective Town/Range/ Section, listed above)	Primary Waterbody (for respective Town/Range/Section, listed above)
Mukwonago River	Mukwonago, Village	FX06	90 %	Phantom Lake
Middle Fox River / Illinois	Mukwonago, Village	FX04	10 %	Fox River

UNPS&SW Grant Project Name
Village of Mukwonago Storm Water Utility Feasibility Study

Project Information (continued)

			%	
			%	
			%	

Note: The planning project area can include more than one watershed. Do not submit separate applications for the same activity in each watershed.

Part I. Screening Requirements

Yes No **A. Map**
 An 8.5" x 11" topographic map from USGS or the DNR viewers, showing the project area, is attached.

B. Planning Activities For Which DNR Funding Is Requested (check all that apply)

- Storm water management planning (including plans for new and/or existing development).
- Ordinance development and administration (including construction site erosion control and/or storm water management).
- Evaluation and/or establishment of local financing options (such as storm water utilities).
- Public education and outreach.

Other (specify):

(see **Attachment D** for additional planning activity information)

Yes No **C. Filters**
Note: You must be able to answer "Yes" to each of the following to be eligible for a grant.

- 1. Project is in an area that is urban or will be urban within 20 years. (see **Attachment B**)
- 2. Project will be completed within 24 months of the start of the grant period.
- 3. Staff and consultants designated to work on this project have adequate training, knowledge, and experience to implement the proposed project.
- 4. Staff or contractual services, in addition to those funded by this grant, will be provided if needed.
- 5. Planning products prepared under this grant will not work at cross-purposes to (are consistent with) non-agricultural performance standards under ch. NR 151. (see **Attachment E**)
- 6. The local DNR Regional Nonpoint Source Coordinator (see **Attachment C**) has been contacted about this project.

Name of the Regional Nonpoint Source Coordinator contacted	Date contacted	Subject of contact
Maureen McBroom	3/23/07	Utility Feasibility Study

- 7. Can you declare that at least one of the two statements below is TRUE?
Statement A. The grant application is for a local governmental unit that does have jurisdiction over the project area. (Jurisdiction over the project area means that the governmental unit has control over whether the planning recommendations are carried out.)
Statement B. The applicant does not have jurisdiction over the project area. The applicant is required to obtain a permit under subchapter I of ch. NR 216. Attached to this application is an intergovernmental agreement that meets the requirements of **Attachment H**.
- 8. Can you declare that at least one of the two statements below is TRUE?
Statement A. The applicant is not the University of Wisconsin Board of Regents.
Statement B. The applicant is the University of Wisconsin Board of Regents **and** the project will develop recommendations for a UW Campus area located in a municipality that meets **both** of the following criteria:
 - The municipality is required to obtain a municipal storm water permit under ch. NR 216;
 - The municipality is located either in a priority watershed or lake area identified under s. 281.65, Wis. Stats., or in an area of concern as identified by the International Joint Commission under the Great Lakes Water Quality Agreement.

If the governmental unit answered "No" to any of the items in Question C. above, stop here. This project is ineligible.

Part II. Minimum Qualifications

Question 1. Fiscal Accountability

A. Timeline and Source of Staff

For each applicable milestone listed below, fill in the appropriate data: See Attached page 13.

Milestone	Target Completion Date (month/year)	Source of Staff
Prepare preliminary scope of services and discuss with DNR NPS Coordinator		
Prepare Request for Proposal		
Select Consultant		
Finalize Scope of Service and Professional Services Contract		
Get DNR Approval of Professional Services Contract		
Hold "kick-off" meeting		
Additional Milestones: (list below)		
Interim Meeting with DNR		
Presentation to Municipal Council		
Submit project and final report to DNR		

B. Adequate Financial Budget

Provide the following information for the project.

The state share may not exceed 70% of eligible costs. The grant amount is capped at \$85,000 for the eligible planning activities.

FINANCIAL BUDGET TABLE – PLANNING ACTIVITIES

A	B	C
Project Activity for which DNR Funding is Requested	Estimated Total Cost (\$)	Amount from Column B Eligible for DNR Cost Sharing (\$)
See Attached page 14.		
1. Total		

UNPS&SW Grant Project Name Village of Mukwonago Storm Water Utility Feasibility Study
--

Project Information (continued)

Cost-Sharing Worksheet

Eligible Costs:

2. 70% of column C, Total (1) above	\$31,812
Cap Test:	
3. Maximum State Share [Lesser of (2) or \$85,000]	\$31,812
State & Local Share:	
4. Requested State-Share Amount (=Requested Grant Amount)	\$31,812
5. Local-Share Amount [Total (1), column B less (4)]	\$13,634

Describe the Quality of Cost Estimates (in your description, discuss whether the cost estimate is based on a competitive bid, scope of services, similar projects conducted locally, similar projects conducted elsewhere in the state or region, or other more generalized data):

The cost estimates were prepared based on a detailed project scope, estimated work effort and hourly rates provided by a qualified consultant w/ experience preparing storm water utility studies.

Question 2. Project Evaluation Strategy

- | Yes | No | Information that will be developed and presented to DNR to evaluate the environmental benefits of completing this project. (check all that apply) |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | A. Information that quantifies how project implementation is projected to decrease storm water impacts on state waters will be provided to DNR. The information may be provided as part of the planning product (e.g., storm water plan, I&E plan) or in the Final Report. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | B. Tracking |
| | | 1. Information that tracks progress in carrying out recommendations of this project will be provided to the Department for one (1) to two (2) years after the project is completed. |
| | | 2. Specify the number of years that tracking information will be provided, and describe in concept how this annual post-project tracking process will work: |

See Attached page 15.

Question 3. Evidence of Local Support

- | Yes | No | The level of <u>local support</u> that <u>currently</u> exists for the proposed project. |
|-------------------------------------|--------------------------|--|
| | | A. Government |
| <input type="checkbox"/> | <input type="checkbox"/> | 1. The local-share funds for the project expenses are already included specifically in an <u>adopted</u> budget. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | OR |
| | | 2. The local-share funds for the project expenses are or will be included in a <u>proposed</u> budget. |
| | | B. Community |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 1. There is community support specifically for the project in this application, and evidence of this support is included with the application submittal. |

UNPS&SW Grant Project Name

Village of Mukwonago Storm Water Utility Feasibility Study

Project Information (continued)

- OR
2. There is community support for addressing general water resource needs in the community, even though there may not be evidence of support for this specific project.

Question 4. Basin Priorities (check one)

- A. Clean Water Act s. 303(d) List**
Project with water quality goals directly dealing with a water body (lake or stream) on the latest Clean Water Act (CWA) s. 303(d) List of Impaired Waters, where the cause of the impairment in nonpoint source pollution and the project will reduce the type of nonpoint pollutants for which the water is listed.
- B. Outstanding and Exceptional Resource Waters**
Waterbody is included in s. NR 102.10 (Outstanding Resource Waters) and/or s. NR 102.11 (Exceptional Resource Waters).
- C. NPS Rankings**
Project is located in a large-scale watershed, a small-scale watershed, lake watershed, or other area ranked high or medium on the NPS Rankings List, where the goals of the project are directly associated with the reason for the ranking on the NPS Rankings List.
- D. Amendment of the NPS Rankings List Using State of the Basin Reports**
Project is located within a watershed ranked low or not ranked on the NPS Rankings List, but information in a DNR State of the Basin report indicates a need to amend the NPS Rankings List because the stream or stream segment or lake is being affected by nonpoint sources of pollution.
- E. Amendment of the NPS Rankings List Using Other Data Sources**
Project is located within a watershed ranked low or not ranked on the NPS Rankings List, but adequate data exists to request a ranking of high or medium for a waterbody that is being affected by nonpoint sources of pollution.
- F. Sources of Information for Areas Not Included in State of the Basin Reports**
For some border waters, there is no State of the Basin report (i.e., along the Mississippi River or the Great Lakes). For these situations, another governmental document, accepted by the Regional NPS Coordinator, can be used to classify the resource as having a significant nonpoint source pollution impairment.
- G. Not Included in Other Categories Above**
50% or more of the planning area is not included in the categories above (A-F).

Part III. Competitive Elements

Question 5. Water Quality Needs

For each watershed in the project area, identify the category that best identifies the project goals. If more than one category is checked (because the project area contains more than one watershed), estimate the portion of the project area to be assigned to each category.

Note: For border waters where a State of the Basin Report does not exist, another governmental document acceptable to the Regional Nonpoint Source Coordinator may be used to identify the water quality need.

- | Percent of
Project Area | Surface Water Considerations |
|--|---|
| <input checked="" type="checkbox"/> 100% | <p>A. 303(d) Listed Waterbody
 Project with water quality goals directly dealing with a water body (lake or stream) on the latest Clean Water Act (CWA) s. 303(d) List of Impaired Waters, where the cause of the impairment in nonpoint source pollution and the project will reduce the type of nonpoint pollutants for which the water is listed.</p> |
| <input type="checkbox"/> | <p>B. Not Fully Meeting Uses
 A waterbody (lake or stream) identified in a DNR State of the Basin report as not meeting or partially meeting designated uses due to nonpoint sources, but is not on the 303(d) List.</p> |
| <input type="checkbox"/> | <p>C. Threatened Waterbody
 A waterbody (lake or stream) viewed as "threatened" by nonpoint sources in a DNR State of the Basin report.</p> |
| <input type="checkbox"/> | <p>D. Outstanding or Exceptional Resource Waters
 Prevention of degradation due to nonpoint sources of outstanding or exceptional resource waters or high quality, recreationally significant waters, but not including waters listed as "threatened."</p> |
| <input type="checkbox"/> | <p>E. Surface Water Quality
 Prevention of degradation of surface water quality due to nonpoint sources. Waters in this category are neither high quality, recreationally significant waters nor "threatened" waters.</p> |
| Groundwater Considerations* | |
| <input type="checkbox"/> | <p>F. Exceeds Groundwater Enforcement Standard
 Groundwater within the project area where representative information indicates that stormwater pollutants in groundwater exceed the Enforcement Standard (ES).</p> |
| <input type="checkbox"/> | <p>G. Groundwater Quality (see Attachment G)
 The project area is within a geological area defined in Attachment G as susceptible to groundwater contamination.</p> |
| <input type="checkbox"/> | <p>H. Exceeds Groundwater Preventive Action Limit
 Groundwater within the project area where representative information indicates that stormwater pollutants in groundwater exceed the Preventive Action Limit (PAL).</p> |

*Consult the Regional Drinking Water and Groundwater Specialist or the County Extension office.

Bonus Points (see Attachment F):

- | Yes | No | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Water quality goals relate to the control of nonpoint source contaminants in public drinking water supplies. |
| <input type="checkbox"/> | 1. | If yes, and the source of drinking water affected by the project area is <u>groundwater</u> , the project protects: |
| <input type="checkbox"/> | a. | One wellhead |
| | | OR |
| <input type="checkbox"/> | b. | More than one wellhead |

2. If yes, and the source of drinking water affected by the project area is surface water, check the source water assessment area in which the project is located. If more than one assessment area is checked (because the project area contains more than one watershed), estimate the portion of the project area to be assigned to each category.

Source Water Drainage Area	Portion of Project in Assessment Area (%)
<input type="checkbox"/> Pike River & Creek	
<input type="checkbox"/> Root River	
<input type="checkbox"/> Oak Creek	
<input type="checkbox"/> Milwaukee River	
<input type="checkbox"/> Sauk Creek	
<input type="checkbox"/> Sheboygan & Onion Rivers	
<input type="checkbox"/> Manitowoc River	
<input type="checkbox"/> Twin Rivers	
<input type="checkbox"/> Kewaunee & Ahnapee Rivers	
<input type="checkbox"/> Menominee River	
<input type="checkbox"/> Fish Creek	
<input type="checkbox"/> St. Louis & Nemadji Rivers	
<input type="checkbox"/> Lake Winnebago	

Question 6. Extent of Pollutant Control

A project can consist of one or more of the following parts (A-F). For each part below, check the boxes that describe work products that will be produced under this grant. Do not check boxes based on prior work.

A. Ordinances

The project will develop or complete one or more of the following ordinances, including associated information, education and public participation activities. (check all that apply)

- 1. Construction erosion control ordinance including all the requirements of s. NR 151.11.
- 2. Storm water ordinance for new development and re-development including all the requirements of s. NR 151.12.
- 3. Low impact development/conservation subdivision ordinances.
- 4. Other ordinances such as an illicit discharge ordinance, storm water ordinances affecting runoff from developed urban areas (e.g., pet waste management ordinances, nutrient management ordinances), or ordinances that regulate the application of fertilizers to non-municipal properties in accordance with NR 151.14

B. Financing Mechanisms

The project will evaluate financing mechanisms for storm water management, including associated information, education and public participation activities. Recommendations will be presented to the governing board for approval and DNR will be notified of the governing board's action. (check one of the following)

- 1. The project develops a dedicated revenue source, such as a storm water utility, to implement a storm water program focusing on implementation of performance standards in Subchapter III of ch. NR 151.
OR
- 2. The project is a general feasibility analysis of alternative funding mechanisms.

C. Storm Water Plan for Developed Urban Areas

The project will develop a storm water management plan for developed urban areas that addresses all of the performance standards under s. NR 151.13 including associated information, education and public participation activities. (check one of the following)

- 1. This project will cover the entire geographic area of the governmental unit.
OR
- 2. This project will cover only part of the geographic area of the governmental unit.

D. Storm Water Plan for New or Redevelopment

The project will develop a storm water management plan for new development and re-development that addresses all of the performance standards under s. NR 151.12 including associated information, education and public participation activities. (check one of the following)

- 1. This project will cover the entire geographic area of the governmental unit.
OR
- 2. This project will cover only part of the geographic area of the governmental unit.

UNPS&SW Grant Project Name Village of Mukwonago Storm Water Utility Feasibility Study
--

Project Information (continued)

- E. Information & Education Program**
 The project will develop and/or implement an information and education program. (This does not include the information and education activities required as part of project under A. through D., above.)
- F. Inter-Municipal Cooperation (bonus)**
 This project is being conducted as part of an inter-governmental storm water management strategy for a common water resource. Describe the inter-governmental effort that will be used to complete the project. If more than one local unit of government is joining in this project application, (a "joint application"), then an inter-governmental agreement meeting the requirements of **Attachment H.** must be submitted with this application.

Question 7. Consistency with Resource Management Plans

Yes No

- A. Consistency with Resource Management Plans**
 The project implements a water quality recommendation specifically included in a locally approved resource management plan. (See Attached page 16)
- B. Summarize the water quality recommendation from the local plan. Cite the name and date(s) of publication of the document.**
 - 1. A construction site erosion control ordinance consistent with the performance standards of s. NR 151.11.
 - 2. A storm water management ordinance consistent with the performance standards of s. NR 151.12.

Question 8. Use of Additional Funding

Yes No

- Funding requested is below the 70% cost-share rate and below the \$85,000 cap.

Question 9. City of Racine

Yes No

- This is an application from the City of Racine for a project that is necessary for the city to comply with state storm water permitting requirements.

Part IV. Eligibility for Multipliers

Completion of this part of the application is optional. However, an applicant can increase the final project score by qualifying for a project multiplier.

Local Implementation Program (select all that are in place as of the application submittal date)

Yes No NA

- A. The governmental unit is implementing a pollution prevention information and education program targeted for property owners and other residents.
- B. The governmental unit is implementing a nutrient management plan for municipally owned properties of at least five (5) acres of pervious area where nutrients are applied.
- C. The governmental unit is tracking storm water permitting activity (construction and post-construction) in the governmental unit and can make summary information available to the DNR upon request.

Optional Additional Information

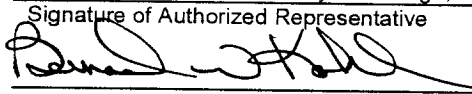
Carefully review the answers to all of the questions above. Is there additional information that will add to the understanding of this project? If so, describe here.

See Attached pages 17-19

Applicant Certification

An Authorized Representative must sign and date the application form prior to submittal to the DNR. All **four (4)** copies must include the signature of the Authorized Representative.

I certify that, to the best of my knowledge, the information contained in this application and attachments is correct and true.

Signature of Authorized Representative 	Date Signed 4-11-2007
Administrator/Clerk/Treasurer [name and title]	
Telephone Number	Fax Number
E-Mail Address	
Mailing Address	

To be considered for funding, provide the following for each application submitted:

- One copy of the completed application form (DNR Form 8700-300 (R 1/07) with original signature in blue ink;
- Three additional signed copies of the completed application form;
- One electronic copy of the completed application form on CD or diskette.

All application materials must be postmarked by midnight April 16, 2007.

Mail to: Department of Natural Resources
attn: Kathy Thompson, WT/2
P.O. Box 7921
Madison, WI 53707-7921

Project Information

C. Project Summary and Description

The Village of Mukwonago is applying for UNPS & SW Planning Program funding for its Storm Water Utility Feasibility Study to explore the legal, administrative, and financial feasibility of creating a storm water utility to encompass the entire Village of Mukwonago. The Village seeks to preserve and protect the Mukwonago River and Middle Fox River/Illinois watersheds of which the Village is a part. The Mukwonago River is designated an Exceptional Resource Water and is home to diverse populations of aquatic life including several endangered and threatened species. Phantom Lake and the Fox River are designated as 303(d) waterways. Protecting the valuable resource is a priority of both the Village and its constituents.

The first step towards preservation and protection of these resources is to complete a storm water management plan. The successful implementation of a comprehensive storm water management program and improvement of water quality will require a significant and sustained dedication of staff and financial resources, as well as strong oversight at the local level. It is the intent of the Village to explore the storm water utility concept as a means to obtain a dedicated source of revenues for storm water management functions within the Village government. Beginning the process of creating a storm water utility will ensure that the Village has the administrative and financial mechanisms in place to implement the storm water management program in a timely manner. The scope of the study will include 1) formation of a storm water utility advisory committee composed of citizen representatives, elected officials, and Village staff; 2) eight meetings of the Advisory Committee; 3) a needs assessment to identify the current storm water activities and staffing of the Village and future needs for a comprehensive storm water management plan; 4) preparation of objectives and criteria survey to be conducted at an Advisory Committee meeting; 5) selection and evaluation of alternative storm water user charge methods, including credit mechanisms for on-site storm water management facilities; 6) estimation of the amount of impervious area of a typical Equivalent Residential Unit (ERU) and the total number of ERU's village-wide; 7) identification of other policies to be considered with respect to a Storm Water Utility for the Village; 9) a draft of the Storm Water Utility ordinances; 10) description of a Storm Water Utility Implementation Plan; 11) a report summarizing the findings and recommendations of the study.

Throughout the study, an on-going public education and information component will occur through: 1) periodic press releases updating the public on the progress of the advisory committee; 2) press releases informing the public of an upcoming open house and hearing; 3) an open house; and 4) a public hearing.

Implementation activities of the Storm Water Utility will include: 1) Computation of actual ERU's for residential, commercial, industrial, and institutional properties; 2) Set user charge rates for each use; 3) Adoption of a final Storm Water Utility Ordinance.

Village of Mukwonago Storm Water Utility Feasibility Study

Question 1 Fiscal Accountability

A. Timeline and Source of Staff

Milestone	Target Completion Date	Source of Staff
Consultant selection	Dec-07	Village Board, Village Clerk
Kick-off meeting with Village Staff	Jan-08	Consultant, Village Clerk
Selection of Advisory Committee	Jan-08	Village Board, Village Clerk
Significant Milestones: Feasibility Study		
Draft Introductory Chapter	Feb-08	Consultant
Meeting 1 Kick-off Meeting with Advisory Committee	Feb-08	Consultant
Task: Conduct inventory of current activities, budget, prepare needs assessment	Feb-08	Consultant, Village Engineer
Draft Report Chapter	Feb-08	Consultant
Meeting 2: Present Needs Assessment and Current Activities	Mar-08	Consultant, Village Engineer
Task: Prepare objectives and criteria survey	Mar-08	Consultant, Village Engineer
Meeting 3: Develop Goals, Objectives, and Criteria for study	Apr-08	Consultant
Draft Report Chapter	May-08	Consultant
Task: Prepare alternative financing methods/user charge structure	Apr-08	Consultant
Draft Report Chapter	May-08	Consultant
Meeting 4: Present alternative financing methods, select alternatives for further review	May-08	Consultant
Task: Prepare and compute ERUs	Feb. 2008-May 2008	Consultant
Task: Prepare analysis of selected alternatives	Jun-08	Consultant
Draft Report Chapter	Jul-08	Consultant
Meeting 5: Present analysis of selected alternatives	Jul-08	Consultant
Task: Prepare presentation of other policy issues	Jul-08	Consultant
Draft Report Chapter	Aug-08	Consultant
Meeting 6: Discuss/study other policy issues	Aug-08	Consultant
Task: Prepare recommended plan and proposed ordinance	Sep-08	Consultant
Draft Proposed Ordinance	Sep-08	Consultant
Draft Report Chapter	Sep-08	Consultant
Meeting 7: Present recommended plan & ordinance	Oct-08	Consultant
Task: Prepare implementation plan	Oct-08	Consultant
Draft Report Chapter	Nov-08	Consultant
Meeting 8: Adopt Report and Implementation Plan	Nov-08	Consultant
Draft Report Conclusion	Nov-08	Consultant
Significant Milestones: Implementation		
Public Education and Involvement in Storm Water Utility Implementation (i.e. press releases on progress and upcoming meetings, open house, and public hearing)	Dec. 2008 - Feb. 2009	Consultant, Village Engineer
Adopt Ordinance	Feb-09	Village Board, Village Clerk
Finalize ERU database	Feb. 2009 - May 2009	Consultant
Adopt utility budget and set user charge rates	June 2009-Oct. 2009	Consultant
Final project	Nov-09	N/A
Submit project and final report to DNR	Nov-09	Consultant, Village Engineer

Village of Mukwonago Storm Water Utility Feasibility Study

Question 1. Fiscal Accountability

B. Adequate Financial Budget

Financial Budget Table - Planning Activities

A	B	C
Milestone	Estimated Total Cost (\$)	Amount from Column B Eligible for Cost Sharing (\$)
Consultant selection	n/a	n/a
Kick-off meeting with Village Staff	\$225	\$225
Selection of Advisory Committee	n/a	n/a
Significant Milestones: Feasibility Study	-	-
Draft Introductory Chapter	\$1,221	\$1,221
Meeting 1 Kick-off Meeting with Advisory Committee	\$759	\$759
Task: Conduct inventory of current activities, budget, prepare needs assessment	\$946	\$946
Draft Report Chapter	\$1,221	\$1,221
Meeting 2: Present Needs Assessment and Current Activities	\$759	\$759
Task: Prepare objectives and criteria survey	\$759	\$759
Meeting 3: Develop Goals, Objectives, and Criteria for study	\$759	\$759
Draft Report Chapter	\$1,221	\$1,221
Task: Prepare alternative financing methods/user charge structure	\$759	\$759
Draft Report Chapter	\$1,221	\$1,221
Meeting 4: Present alternative user charge structures, select alternatives for further review	\$759	\$759
Task: Prepare and compute ERUs	\$8,030	\$8,030
Task: Prepare analysis of selected alternatives	\$2,530	\$2,530
Draft Report Chapter	\$1,221	\$1,221
Meeting 5: Present analysis of selected alternatives	\$759	\$759
Task: Prepare presentation of other policy issues	\$759	\$759
Draft Report Chapter	\$1,221	\$1,221
Meeting 6: Discuss/study other policy issues	\$759	\$759
Task: Prepare recommended plan and proposed ordinance	\$759	\$759
Draft Proposed Ordinance	\$880	\$880
Draft Report Chapter	\$1,221	\$1,221
Meeting 7: Present recommended plan & ordinance	\$759	\$759
Task: Prepare implementation plan	\$297	\$297
Draft Report Chapter	\$1,221	\$1,221
Meeting 8: Adopt Report and Implementation Plan	\$759	\$759
Draft Report Conclusion	\$1,221	\$1,221
Significant Milestones: Implementation		
Public Education and Involvement in Storm Water Utility Implementation	\$8,954	\$8,954
(I.e. press releases on progress and upcoming meetings, open house, and public hearing)	-	-
Adopt Ordinance	n/a	n/a
Finalize ERU database	\$2,904	\$2,904
Adopt utility budget and set user charge rates	\$583	\$583
Final project	n/a	n/a
Submit project and final report to DNR	n/a	n/a
Total	\$45,446	\$45,446

Question 2. Project Evaluation Strategy
Village of Mukwonago Storm Water Utility Feasibility Study

Part II**Question 2. Project Evaluation Strategy****A. Evaluation**

The Storm Water Management Plan will demonstrate how implementation of the recommended plan will decrease pollutant loadings to the Mukwonago River, Fox River, and Phantom Lake; and will be submitted to the Department. This Plan will also demonstrate how implementation will achieve the performance standards found within NR 151.

B. Tracking

The tracking strategy for this project seeks to ensure the timely development and implementation of the Storm Water Management Plan. First, the development of the plan will be tracked to ensure that it is on target with the proposed timeline submitted in Fiscal Accountability section of the application. Second, the actual implementation of the Plan will be tracked to verify that the Village is following the recommendations of the Plan. The Village will submit annual reports to the Department for three years following completion of the study to inform the Department of the schedule and results of all proposed control measures.

Question 3. Evidence of Local Support**A. Government**

A letter from Village President Jim Wagner expresses the Village's commitment to include the local-share portion in its 2008 proposed budget. A copy of the letter is attached to the application.

B. Community

The Storm Water Utility Feasibility has received local support from the Friends of the Mukwonago River. A copy letter is attached to the application.

Part III. Competitive Elements

Question 5. Water Quality Needs

The State of the Southeast Fox River Basin, February 2002 (PUBL WT-701-2002) indicates that the Mukwonago River is only partially meeting its designated use.

Question 7. Plans and Regulations

A. Consistency with Resource Management Plans

On April 4, 2000, the Village adopted the Comprehensive/Master Plan for the Village of Mukwonago titled *Designing Mukwonago*. The Development Fundamentals/Controls element of the plan seeks to ensure natural areas, wetlands, and waterways remain untouched and undisturbed. Controlling storm water runoff is specifically stated in the plan on page 16. It further recommends utilization of WDNR's *Wisconsin Construction Best Site Management Practices* in order to protect natural resources. The Village Zoning Code also protects environmentally sensitive areas in its Shoreland-Wetland Zoning District (Sec. 100-273), which includes all wetlands in the Village and lands within 1,000 feet of navigable lakes, ponds, or waterways.

The State of the Southeast Fox River Basin, February 2002 (PUBL WT-701-2002) lists storm water runoff and agricultural and urban runoff as a threat to water quality in both the Mukwonago River and Middle Fox River Basin Watersheds. The University of Wisconsin-Milwaukee's Department of Biological Sciences prepared the report *Status of Stream Habitat, Aquatic Biotic Integrity, and Longear Sunfish Populations in the Mukwonago River Watershed*, which identifies sedimentation and nutrient inputs as stressors to the watershed. Development of a storm water management plan and a dedicated funding source will protect water quality and aquatic life in both watersheds from the negative effects of uncontrolled storm water runoff.

Optional Additional Information

According to *The State of the Southeast Fox River Basin, February 2002*, the Mukwonago River Watershed may be the least disturbed watershed in the Southeast Fox River Basin. In its waters and surrounding areas live diverse and unique populations of warm water forage fish, game fish, mussels, amphibians and invertebrates. Over 50 species of fish and 15 species of freshwater mussels including several endangered and threaten species live in its waters and the overall condition of its wetlands and ecosystem are considered excellent. As a result, the Wisconsin Department of Natural Resources has designated the Mukwonago River Watershed an Exceptional Resource Water. It is also important to note that Phantom Lake and the Fox River are listed as 303(d) waterways.

The Village of Mukwonago is committed to preserving and protecting these valuable resources for future generations. Under increasing development pressure, the Village realizes the imminent importance of controlling the effects of new development on its fragile environment. The concept of storm water management is not new for the Village as demonstrated by its comprehensive ordinances on Storm Water Runoff and Construction Site Erosion Control. In addition, the Village has formed a Storm Water Utility District encompassing the Gateway District of the Village. The development of a Comprehensive Storm Water Management Plan that extends Village-wide is in process to ensure that storm water from existing development is controlled, thus reducing sediment, nutrient, and pollution loadings, which harm the sensitive wetlands, rivers, and lakes of the Mukwonago River Watershed.

The Village is currently listed as an NR 216 community, and is home to the pristine Mukwonago River, Phantom Lake and a portion of the Fox River. The Village and its community supporters are proactively working to protect these valuable resource waters. A dedicated source of revenue through a storm water utility is an essential component to protecting the waters.

Additional Information on Storm Water Management Plan Activities

The Village of Mukwonago is in the process of completing a storm water management plan that will encompass the following:

EXISTING CONDITIONS

- **Existing System Inventory.** Define all basins and sub-basins within the study area based upon existing 1" = 200' scale topographic maps. The sub-basins shall be delineated to represent areas draining to major outfalls and as needed to evaluate the adequacy of existing and future system components.

Characterize the climate of the study area including temperature, precipitation, snow cover and frost depth.

Map and characterize the soils within the study area. This will include hydrologic soil groups in each sub-basin, and the areas covered by each of these groups.

Identify the intensity-duration-frequency relationship characteristic of the study area.

Define, map, and characterize wetland locations within the study area based upon available information.

Identify and define historic local storm water drainage problems within the study area based upon information provided by Village staff and officials.

- **Demonstrate Adequate Legal Authority.** Research existing legal constraints, institutional agreements and ordinances that may impact storm water drainage and nonpoint source pollution controls within the study area. Propose ordinance changes to provide adequate legal authority to implement the recommended storm water management plan and meet the requirements of NR 216.
- **Develop a Storm Water System Map.** Develop a storm sewer system map based upon existing digital storm sewer, cadastral, land use and topographical maps to meet the requirements of NR 216. Identify watershed boundaries, storm sewers, ditches, swales and other conveyance or storage components. Identify the final urban storm water planning area. List and locate all known municipal storm water outfalls discharging to waters of the state and classify the outfalls as major or minor. Locate and describe currently operating or closed municipal landfills, WPDES permit holders, storm water structural controls and publicly owned parks, recreational areas and other open lands.
- **Describe Existing Management Programs.** Describe existing management programs to control pollutants from municipal separate storm water systems.
- **Discharge Characterization.** Provide a characterization of the quality and quantity of storm water runoff and the effect this runoff has on receiving bodies of water based on existing data and conditions. The characterization will meet the requirements of NR 216 and will include monthly mean rain and snowfall estimates, frost depth, location and description of land use activities including runoff coefficients and population densities, projected 10-year population growth, existing qualitative discharge data, and a list of receiving water bodies with known water quality impacts.

HYDROLOGIC/HYDRAULIC ANALYSIS

- **Evaluate Existing System.** Develop a hydraulic model for Village lands. Generate peak runoff rates from the 2, 10 and 100 year, 24 hour storms for both existing and fully developed conditions based on the master land use plan. Model these flows through the existing storm sewer and conveyance system to determine pipes, ditches and swales which do not have sufficient capacity. Storm sewers less than 24 inches in diameter will not be analyzed.

The storm drainage system shall be modeled in sufficient detail to identify and evaluate existing and potential future deficiencies in both the minor and major drainage components. The hydraulic effects of major storm sewers, perennial streams, major roadside swales and storage facilities will be accounted for in the analysis. The sub-basins shall be delineated at a level of detail that will enable the determination of peak rates and volumes of runoff for all drainage components to be evaluated.

WATER QUALITY ANALYSIS

- **SLAMM Analysis.** Utilizing the WDNR Source Loading and Management Model (SLAMM), calculate annual pollutant loadings for each of the major outfalls within the study area in accordance with NR 216. Provide calculations under existing and fully developed land use for the following pollutants: total suspended solids, total phosphorus, cadmium, copper, lead, and zinc.

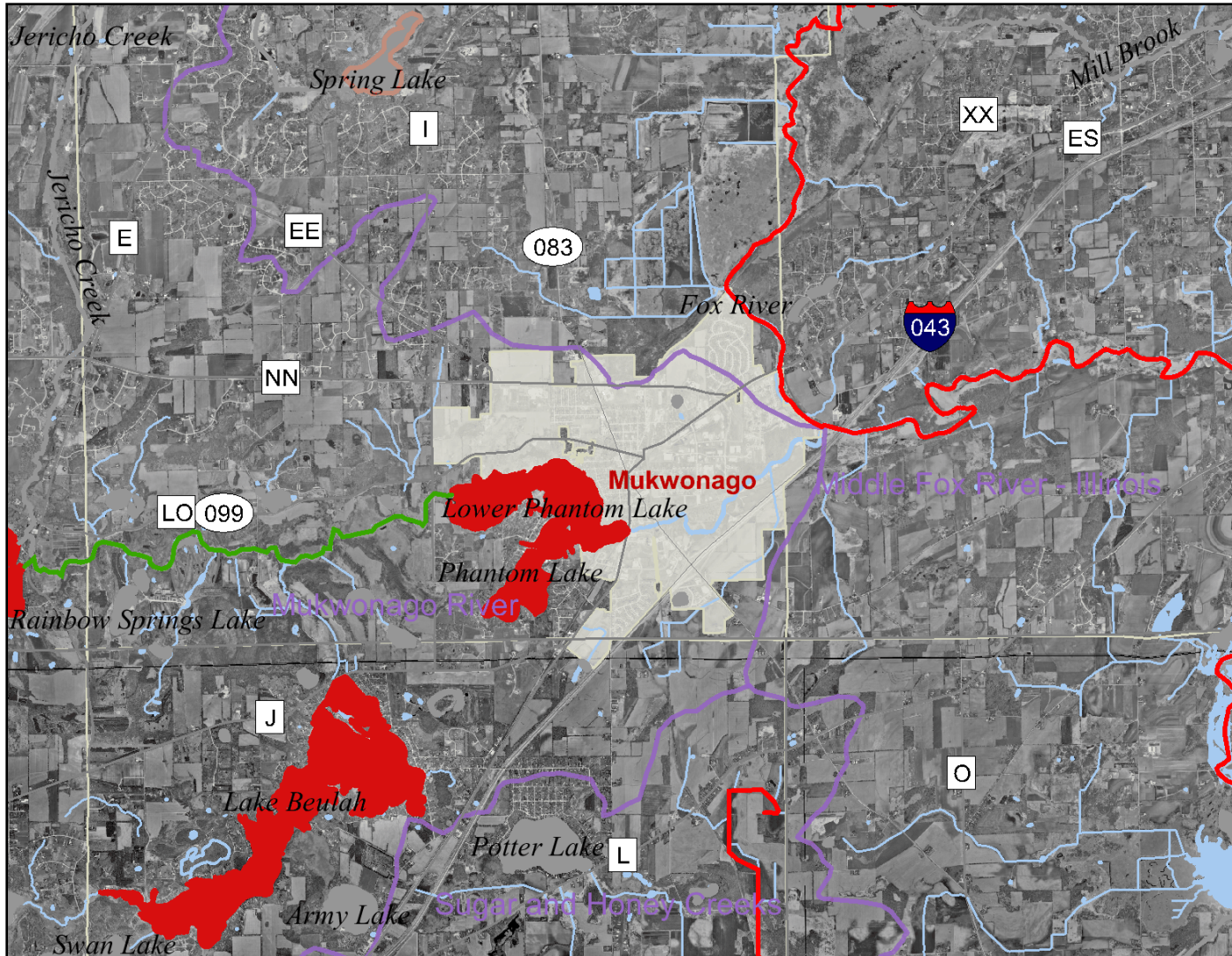
STORM WATER MANAGEMENT ALTERNATIVES AND RECOMMENDATIONS

Develop a recommended plan for the study area based upon the evaluation of practical alternatives. The plan shall include, but is not limited to drainage system improvements, water quality controls, regulatory controls, implementation strategies, improvement prioritization, financing options, capital and operation and maintenance costs, and public information and education strategies.

- **Water Quantity Improvements.** Identify inadequate conveyance structures and recommend replacement or supplemental facilities. Determine preliminary sizing and location of regional detention facilities to meet the Village's storm water ordinance. Include a cost estimate for recommended improvements and a prioritization table.
- **Water Quality Improvements.** Recommend both structural and non-structural best management practices to improve water quality and meet the requirements of NR 216.
- **Fiscal Analysis.** Conduct a fiscal analysis of the estimated capital and operation and maintenance expenditures to implement the proposed management programs. Describe potential funding sources and outline potential annual budgets.
- **Public Information and Education Program.** Develop a public information and education program to meet the requirements of NR 216.
- **Illicit Discharge Program.** Develop an illicit discharge detection and elimination program to meet the requirements of NR 216.

Report. The consultant will prepare a written report summarizing the findings and recommendations of the study. The Advisory Committee will review the report and revisions will be made as necessary. Following approval of the report by the Advisory Committee, the consultant will make a presentation of the study findings to the Village Board.

Village of Mukwonago Storm Water Utility Feasibility Study



Legend

Outstanding and Exceptional Waters

- Exceptional
- Outstanding
- Impaired Waters Lines
- Impaired Waters Areas

NPS Rank Lines

- High Stream
- Medium Stream
- Low Stream
- Not Ranked

NPS Rank Areas

- High Lake
- Medium Lake
- Low Lake
- Not Ranked

Impaired Waters Category Lines

- Contaminated Sediment Dominated
- Atmospheric Deposition Dominated
- Physical or Habitat Dominated
- Nonpoint Source Dominated
- Point and Nonpoint Source Blend
- Other or Multiple Factors

Impaired Waters Category Areas

- Contaminated Sediment Dominated
- Atmospheric Deposition Dominated
- Physical or Habitat Dominated
- Nonpoint Source Dominated
- Point and Nonpoint Source Blend
- Other or Multiple Factors

- 24K County Boundaries
- Major Highways

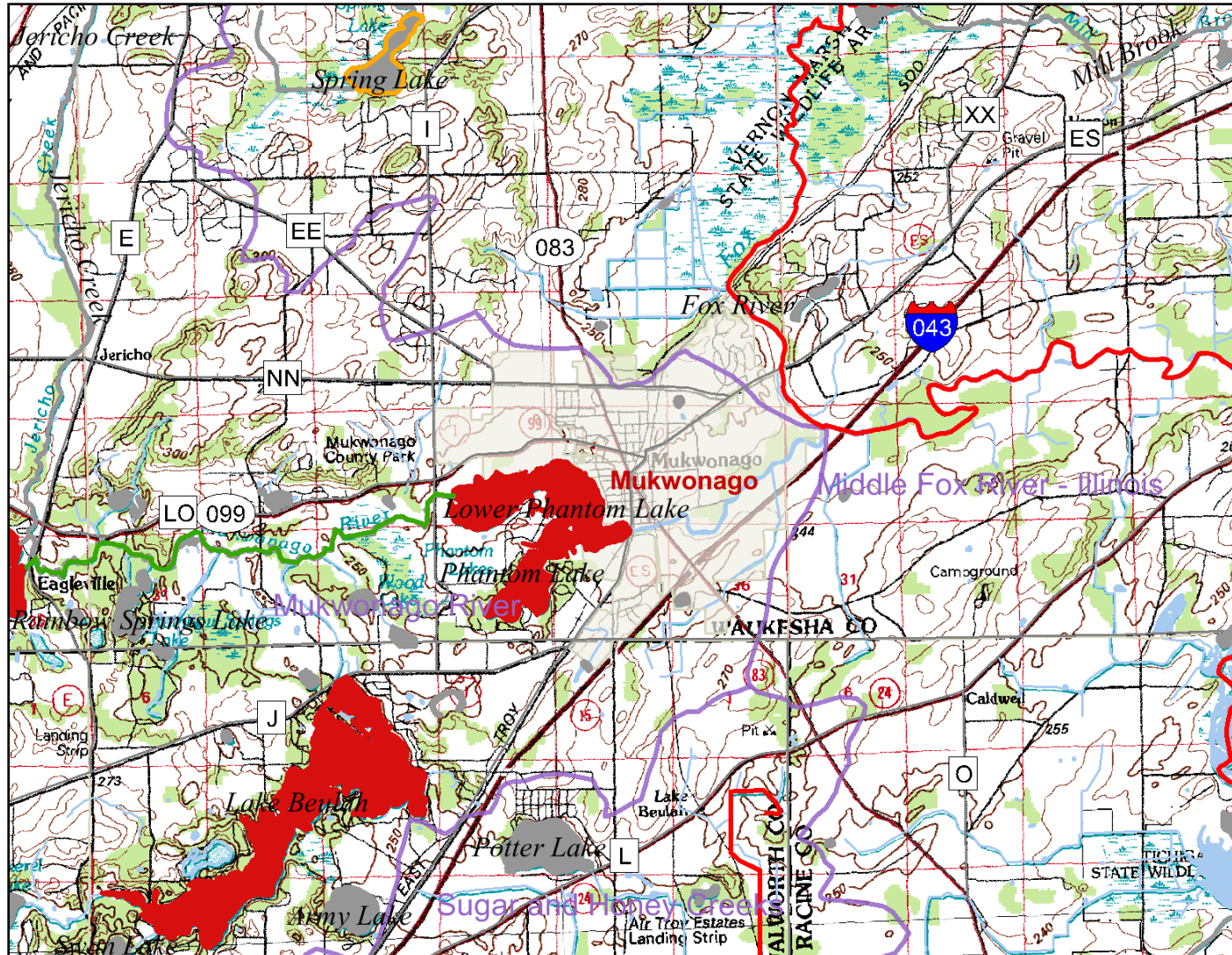


Scale: 1:91,970



This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Village of Mukwonago Storm Water Utility Feasibility Study



Legend

Outstanding and Exceptional Waters

- Exceptional
- Outstanding
- Impaired Waters Lines
- Impaired Waters Areas
- NPS Rank Lines**
- High Stream
- Medium Stream
- Low Stream
- Not Ranked

NPS Rank Areas

- High Lake
- Medium Lake
- Low Lake
- Not Ranked

Impaired Waters Category Lines

- Contaminated Sediment Dominated
- Atmospheric Deposition Dominated
- Physical or Habitat Dominated
- Nonpoint Source Dominated
- Point and Nonpoint Source Blend
- Other or Multiple Factors

Impaired Waters Category Areas

- Contaminated Sediment Dominated
- Atmospheric Deposition Dominated
- Physical or Habitat Dominated
- Nonpoint Source Dominated
- Point and Nonpoint Source Blend
- Other or Multiple Factors
- 24K County Boundaries
- Major Highways

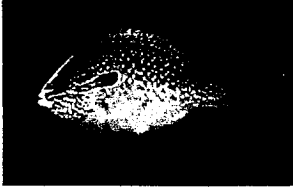
0 1.7 3.4 5.1 mi.



Scale: 1:91,970

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

Friends of the Mukwonago River



Longear Sunfish
(*Lepomis megalotis*)

The Mukwonago River watershed is home to over 50 species of fish including the threatened Longear Sunfish (*Lepomis megalotis*), several species of rare freshwater mussels, an incredible diversity of wetlands, and some of the highest water quality in Southeastern Wisconsin. The mission of the Friends of the Mukwonago River is to protect the Mukwonago River and its associated watershed ecosystems by way of education, advocacy, and promotion of sound land use throughout the watershed.

April 3, 2007

Mr. Bernie Kahl
Administrator/Clerk/Treasurer
440 River Crest Court
P.O. Box 206
Mukwonago, WI 53149

Dear Mr. Kahl:

RE: Storm Water Utility Feasibility Study Grant Application for the Village of Mukwonago

We are writing this letter to express our complete support for the proposed storm water utility feasibility study grant application by the Village of Mukwonago. We were, in fact, thrilled to hear that the Village is taking the initiative to reapply for this grant.

We've reviewed previous draft summaries of this project proposal and we believe that this project is of outstanding merit and it is well worth funding.

We present, the enclosed flier, "What's so special about the Mukwonago River?" in support of our case for this grant. Many of the important attributes of the river are summarized in the flier. Further, we'd like to take this opportunity to highlight and expand upon some of the information in the flier in an effort to sufficiently detail the importance of this river to Wisconsin.

Comments specific to the stream in the Village of Mukwonago

-The Mukwonago River is unique in Wisconsin. The stream's diversity of aquatic life is beyond compare. The only other streams that have greater diversity in the state are much larger systems such as the Wisconsin and Mississippi Rivers.

-By far the most diverse reach of this 17-mile stream is the final 1-2 miles that lie between the Phantom Lake dam and the confluence with the Fox (Southeast) River in the Village of Mukwonago. Unfortunately this part of the stream is becoming increasingly degraded due to development in the Village.

Mr. Bernie Kahl, April 3, 2007

-This reach of the stream also supports what is probably the most viable population of Longear Sunfish (a state threatened species) in the state. This reach also supports one of only 2 or 3 viable Starhead Topminnows populations in the state (a federally endangered species).

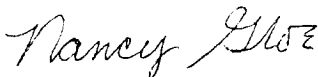
- The U.S. Fish and Wildlife Service has estimated that up to 70% of North America's mussels are now either threatened, endangered or of special concern status. While there are freshwater mussels throughout the Mukwonago River systems, the gravel shoals in the Village of Mukwonago have supported, by far the most dense and diverse mussel beds and they are among the most significant in the upper Midwest. Unfortunately, these beds have recently been overharvested and they are also threatened by zebra mussels. These threats are being addressed. In the fall of 2006 inland mussel harvest became illegal in Wisconsin. Further we plan to work with the Bureau of Endangered Resources on a zebra mussel monitoring project. As long as the habitat and the water quality maintain viable, these beds will, hopefully, recover.

-According to the Illinois Natural Areas Inventory in the late 1970's only 0.07% of the State of Illinois was "recognizable" as a natural community. This situation is probably very similar to the one in Wisconsin. The aquatic life in the Mukwonago River is currently "intact" and meets the definition of a natural community. To their credit, the Village has taken steps to provide important buffer areas along the river but, again, the Village's storm water is negatively impacting the system. A storm water utility, should the Village deem it appropriate, would go a long way in maintaining the outstanding quality of this system.

In summary, the Mukwonago River is an invaluable and rare natural treasure. The importance of this resource is compounded by the fact that it occurs in the heavily populated southeast region of this state. The most important part of the stream may well be in the Village of Mukwonago which has been undergoing rapid urbanization with resultant water quality deterioration due to water table declines and storm water runoff. If the Village secures a grant to carry out this project, it would be a huge step forward in the effort to save this very important resource.

Thank you for undertaking this initiative. We will continue to work to educate the public on the importance of this special resource. If you have any questions or comments or we may be of assistance in any other way please don't hesitate to contact us.

Sincerely,



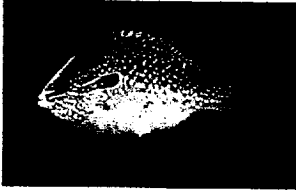
Nancy Gloe, Co-Director
19355 Benington Dr.
Brookfield, WI 53045
(262) 782-8876
gloe@execpc.com



Ezra Meyer, Co-Director
1829 Spaight St.
Madison, WI 53704
(608) 257-0988
ezra_meyer@yahoo.com

c: Jon Cameron-Ruekert-Mielke ✓

Friends of the Mukwonago River



Longear Sunfish
(*Lepomis megalotis*)

The Mukwonago River watershed is home to over 50 species of fish including the threatened Longear Sunfish (*Lepomis megalotis*), several species of rare freshwater mussels, an incredible diversity of wetlands, and some of the highest water quality in Southeastern Wisconsin. The mission of the Friends of the Mukwonago River is to protect the Mukwonago River and its associated watershed ecosystems by way of education, advocacy, and promotion of sound land use throughout the watershed.

What's so special about the Mukwonago River?

Fish diversity:

- **The Mukwonago River is home to over 50 different species of fish.** For a stream of this size, over 20 species would be considered quite diverse. Only much larger systems like the Wisconsin and the Mississippi have comparable levels of fish diversity.
- **10 of the state's 11 species of Sunfish (including the threatened Longear Sunfish) live in the Mukwonago River.** It is the only stream in Wisconsin where this occurs.
- **All three species of Killifish (or Topminnows) found in Wisconsin, including the federally endangered Starhead Topminnow, live in the Mukwonago River.** This is the only stream in the state where this occurs.
- **The Mukwonago supports numerous species of Shiners and Darters,** fish species that are not necessarily unique, but are indicators of good water quality and habitat.

Freshwater mussel diversity:

- **The Mukwonago River contains 15 different species of freshwater mussels, including the endangered Rainbow Shell and the threatened Slippershell and Ellipse mussels.** Mussels are the most threatened family of animals in North America, due principally to water quality deterioration in most of the nation's freshwater bodies.

High quality, diverse wetlands:

- **The Mukwonago River watershed features a diverse and extensive system of intact wetlands that help support its high water quality and species diversity.** These wetlands are one of the important reasons explaining why the Mukwonago River is known as one of the most biologically diverse and highest quality rivers in the state.

Over, please.

Excellent overall ecosystem condition:

- Due to its excellent water quality, minimal level of disturbance, and diverse habitat types (particularly the abundant spring-fed wetlands), **the river also supports a high diversity of waterfowl, reptiles, amphibians, insects, aquatic plants, and wetland types.** The Mukwonago, for example, supports one of the last and largest stands of wild rice in Southeastern Wisconsin.

High rates of groundwater recharge:

- Due in large part to the glacial soils found throughout most of the watershed, and combined with the fact that the watershed is relatively undeveloped, **groundwater recharge rates in the watershed are significant.** Much of the life described above relies heavily on the consistent inflow of groundwater for its survival. The human communities in the watershed also rely on the groundwater aquifers supplied by this recharge. Today, those aquifers are being pumped excessively potentially threatening the future economic viability of the region – maintaining groundwater recharge wherever possible is more important than ever.

Other good things to know about the Mukwonago River:

Due to the factors listed above, **the Wisconsin Chapter of The Nature Conservancy has designated the Mukwonago River watershed one of its four “Last Great Places” in Wisconsin.**

Because of its high quality waters and wetlands, the Mukwonago River watershed has been selected as one of three focal sites globally to be reviewed by the international Nature Conservancy Wetlands Network. This network is comprised of some of the most knowledgeable wetlands academics, scientists, and managers in the world.

The challenge of protecting the outstanding resources of the Mukwonago River in the face of development pressure and other potential threats is one that the watershed community is capable of meeting, provided that we put our minds to it and work collaboratively. Where development is to occur, practices exist for development design, stormwater management, and land and water conservation that will serve to help us meet these objectives. Where appropriate, public and private land preservation can play a key role in protecting the natural heritage of the Mukwonago River watershed for the enjoyment of current and future generations.

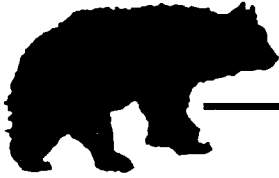
Most importantly, it is not too late! But we need your help...

Contact the Friends of the Mukwonago River:

Nancy Gloe: (262) 782-8876, gloe@execpc.com

Ezra Meyer: (608) 843-3972, ezra_meyer@yahoo.com





Mukwonago - Place of the Bear

a Waukesha County blue chip community

Village of Mukwonago

March 28, 2007

**Maureen McBroom
141 N.W. Barstow St.
Waukesha, WI 53188**

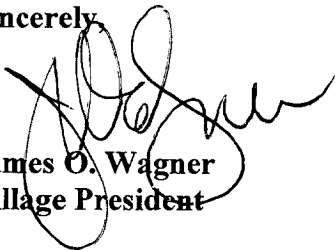
Dear Ms. McBroom,

The Village of Mukwonago is committed to protecting the diverse array of natural resource features located within the Village's borders. This commitment is vitally important when extended to the Mukwonago River. Recently, the Village Board directed Ruekert-Mielke to apply for a DNR Urban Nonpoint Source and Storm Water Planning Grant. The purpose of the application is to seek financial assistance for a Storm Water Utility Feasibility Study.

The Village is experiencing significant developmental pressure, which makes storm water management a critical issue. As you know, the Village has created a Storm Water Utility District for the newly developed Gateway District along the I-43 and STH 83 corridor. The Village is also in the process of preparing a comprehensive storm water management plan. The creation of a dedicated financing source is the next logical step. As a result, the Village is committed to funding the planning grant and will include the local-share portion in its 2008 proposed budget.

Thank you for your consideration of our application. Please feel free to contact me with any questions.

Sincerely,



**James O. Wagner
Village President**