

Wisconsin Department of Natural Resources SWIMS Project Summary

General Project Information

Project ID:	WaubesaWetlandsStudy
Name:	Waubesa Wetland Study (2017)
Type:	Water Quality Planning
Subtype:	Water Quality Management Plans
Status:	FINAL_RPT
Start Date:	11/01/2016
End Date:	01/01/2020
Purpose:	DNR committed to collaborate with other interested and affected parties to conduct a comprehensive study of the watershed upstream of the Waubesa Wetlands within 3 years.
Objective:	<p>The DNR has asked the Capital Area Regional Planning Commission to begin this process, as part of our water quality planning contract with the DNR, by organizing a steering committee to develop a detailed plan and budget for this study. An effort that involves evaluating groundwater flow and surface and groundwater interactions between streams, springs, groundwater, and Lake Waubesa, using the 2014 Dane County Regional Groundwater Model update developed by WGNHS, including the development of a new inset model for the Waubesa Wetlands, if warranted. This project recommends utilizing updated rainfall data from NOAA Atlas 14 and include considerations for changing climatic conditions.</p> <ol style="list-style-type: none"> 1. Evaluate nutrient loadings, including nitrogen and phosphorus in both particulate and dissolved forms, in streams, springs, groundwater, and Lake Waubesa. 2. Document the assessment of the health of the watershed's biological communities (plants, wildlife, fish, invertebrates, etc.), and how changes in surface and ground water quantity, quality, and flow may affect those biological communities. 3. Document evaluation of current and potential future municipal water supply well placement. 4. Provide recommendations for source water protection of areas that feed the perched fen located in the southwest portion of Lake Waubesa. 5. Provide recommendations for management actions to mitigate the cone of depression resulting from current and future municipal water well pumping.
Comments:	
Outcome:	
Study Design:	Lake Waubesa: 803700
QA Measures:	

People

Name	Role	Status	Start Date	End Date	Organization	Comments
Asplund, Timothy R	TEAM_MEMBER	ACTIVE	11/01/2016	12/31/2099	Wisconsin DNR	
BERNTHAL, THOMAS W	TEAM_MEMBER	COMPLETE	11/23/2016	01/15/2020	Wisconsin DNR	
HELMUTH, JEFFREY A	TEAM_MEMBER	ACTIVE	11/01/2016	12/31/2099	Wisconsin DNR	
Helmuth, Lisa D	COORDINATOR	COMPLETE	11/23/2016	06/30/2017	Wisconsin DNR	
Kakuska, Mike	COORDINATOR	ACTIVE	11/23/2016		Capital Area Regional Planning Commission (CARPC)	

Project Statuses

Date	Reported By	Status	Comments
11/23/2016	Lisa Helmuth	Progress: 0-25% Complete	Initial work on Waubesa Study
03/26/2017	Lisa Helmuth	Progress: 25-50% Complete	multiple meetings have been held. The coordinator will be asked to upload notes and documents to this site.
12/04/2017	Michael Rupiper	Progress: 50-75% Complete	

Actions

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Action	Detailed Description	Start	End Date	Status
Protect Headwaters and Springs	Provide recommendations for management actions to mitigate the cone of depression resulting from current and future municipal water well pumping.	11/01/2016	01/01/2020	PROPOSED
Watershed Mapping or Assessment	Document the assessment of the health of the watershed's biological communities (plants, wildlife, fish, invertebrates, etc.), and how changes in surface and ground water quantity, quality, and flow may affect those biological communities.	11/01/2016	01/01/2020	PROPOSED
Protect Headwaters and Springs	Provide recommendations for source water protection of areas that feed the perched fen located in the southwest portion of Lake Waubesa.	11/01/2016	01/01/2020	PROPOSED
Watershed Mapping or Assessment	Waubesa Wetlands Study with other interested and affected parties to conduct a comprehensive study of the watershed upstream of the Waubesa Wetlands within 3 years.	11/01/2016	12/31/2099	IN_PROGRESS
Urban Growth Planning	Document evaluation of current and potential future municipal water supply well placement.	11/01/2016	01/01/2020	PROPOSED
Monitor Wetlands	Evaluate nutrient loadings, including nitrogen and phosphorus in both particulate and dissolved forms, in streams, springs, groundwater, and Lake Waubesa.	11/01/2016	01/01/2020	PROPOSED

Monitoring Stations

Station ID	Name	Comments
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Assessment Units

WBIC	Segment	Local Name	Official Name
803700	1	Lake Waubesa	Lake Waubesa

Lab Account Codes

Account Code	Description	Start Date	End Date
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Forms

Form Code	Form Name
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Methods

Method Code	Description
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Fieldwork Events

Start Date	Status	Field ID	Station ID	Station Name
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Documents

Title	Description	Author	Published	Comments
Draft Framework for Wetland Resources Management in the Capital Area 092415 Part 1.pdf	Draft Framework for Wetland Resources	CARPC	09/24/2015	
Draft Framework for Wetland Resources Management in		Mike Kakuska	09/24/2015	

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Title	Description	Author	Published	Comments
the Capital Area 092415 Part 2.pdf				
Hydrology and history: land use changes and ecological responses in an urban wetland	Hydrology and history: land use changes and ecological responses in an urban wetland C.R. Owen Wetlands Ecology and Management 6: 209-219, 1999.	C.R. Owen	01/01/1999	
Seasonal shifts in the relative importance of local versus upstream sources of phosphorus to individual lakes in a chain	Seasonal shifts in the relative importance of local versus upstream sources of phosphorus to individual lakes in a chain Cory P. McDonald and Richard C. Lathrop	Cory P. McDonald and Richard C. Lathrop	08/01/2016	
Urban Stormwater Management in the United States	National Academy of Sciences. The rapid conversion of land to urban and suburban areas has profoundly altered how water flows during and following storm events, putting higher volumes of water and more pollutants into the nation's rivers, lakes, and estuaries. These changes have degraded water quality and habitat in virtually every urban stream system. The Clean Water Act regulatory framework for addressing sewage and industrial wastes is not well suited to the more difficult problem of stormwater discharges. This book calls for an entirely new permitting structure that would put authority and accountability for stormwater discharges at the municipal level. A number of additional actions, such as conserving natural areas, reducing hard surface cover (e.g., roads and parking lots), and retrofitting urban areas with features that hold and treat stormwater, are recommended.	National Research Council	01/01/2009	
Water Quality, Hydrology, and Response to Changes in Phosphorous Loading of Nagawicka Lake, a Calcareous Lake in Waukesha County, Wisconsin	Water Quality, Hydrology, and Response to Changes in Phosphorous Loading of Nagawicka Lake, a Calcareous Lake in Waukesha County, Wisconsin	USGS, City of Delafield	01/01/2006	
Waubesa Wetlands Initial team formation and study design	Waubesa Wetlands Initial team formation and study design	CARPC	11/21/2016	
What's New in Adaptive Management and Restoration of Coasts and Estuaries?	What's New in Adaptive Management and Restoration of Coasts and Estuaries? Joy B. Zedler	Joy B. Zedler	08/01/2016	

Budget

Combined Budgets:

Combined SLOH:

Combined Total:

Funding

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Organization	Source	Type	Amount	Start Date	End Date
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