

## Yahara Lakes – Water Level Short-term Actions

Action	Benefits/Results	Target to Complete	Lead/Status
<b>Infrastructure Evaluation/Modification</b>			
Temporary emergency water level orders for Stoughton and Kegonsa, draw down under specified flood conditions	Reduce flooding duration on all lakes within the Yahara River System by improving the movement of water downstream through the Yahara River system.	April 2009	DNR- Draft orders prepared
Prioritize and address the constrictions in the system – examples: cut aquatic vegetation in channels; dredge bridge openings, lower pipeline crossings.	Reduce flood elevation and/or duration of flooding on all lakes by improving the movement of water downstream through the Yahara River system	October 2009	Dane County Working list started in 2008.
Identify alternatives and feasibility of modifying the Stoughton railroad bridge	Increases the flood flow capacity of the Yahara River and ultimately reduces upstream flooding by safely passing more flow downstream. Detail flood reduction will be determined by modeling but it is estimated that upstream flooding may be reduced by 0.25 feet during the regional flood.	December 2009	DNR
Identify alternatives and feasibility of modifying Upper Mud Lake railroad bridge	Reduce 100-year flood elevation by estimated 0.5 feet, reducing flood damage to upstream Lake Monona development	December 2009	Dane County Phase 1 Study funded in 2008 and additional funding provided in 2009
Identify alternatives and feasibility of modifying Highway 113 railroad bridge	Reduce 100-year flood elevation by estimated 1 feet, reducing flood damage to upstream residences and Cherokee Marsh	December 2009	City of Madison
Upgrade Cherokee Marsh lift station, manholes and emergency plan	Eliminate, or greatly reduce, the frequency and volume of sanitary sewer overflows which release nutrients to the Cherokee Marsh and Yahara Lakes	Completed	Madison Metro Sewerage District
Assess stability of Tenney Lock and Dam	Reevaluate and if necessary modify dam to fully minimize any associated problems	May 2009	Dane County- Engineering study

			initiated in 2008
Water level order for Tenney Lock and Dam (ultimate maximum to address stability)	Limit Lake Mendota's flood level held by the Tenney Lock and Dam to fully minimize risk of dam failure	May 2009	DNR
<b>Data Gathering and Flood Level Evaluation/Warning</b>			
Install flow gages on Six Mile and Dorn Creeks	Better monitor inflow into Lake Mendota and to calibrate Lake level operation model. Model will enable dam operator to accurately predict the lake response to a suggested gate manipulation	September 2009	Dane County
Install one or two flow gages on Starkweather Creek	Better monitor inflow into Lake Monona and to calibrate Lake level prediction model	September 2009	City of Madison
Complete Mendota portion of hydraulic system model. Expand this state of the are model to other lakes in following years	Improve hydraulic modeling of the lakes for water level management evaluation and flood prediction. Models will enable dam operator to accurately predict lake responses to suggested gate manipulations.	September 2009	City of Madison
<b>Communication/Advisory</b>			
Create a web-based public input feature on Dane County's existing lake level page	Provide an opportunity for the public to contribute observations and suggestions.	June 2009	Dane County
Periodic press release on the status of the Lakes and upcoming management issues.	Provide the public with water level and dam operation information.	March 2009	Dane County
Convene a technical group consisting of DNR, County, and municipalities to coordinate dam and water level information	Improve communication and coordination. Gather and share water level and dam operation information.	Began in February, 2009 - continuing	DNR Dane County City of Madison
Convene a Yahara System flooding advisory group	Evaluate impacts of short-term measures and identify next steps	April 2010	DNR Dane County City of Madison

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