

Yahara Lake Level Advisory Group 2 (YLAG2)

Meeting Minutes

April 28, 2011

3 - 5 pm with Public Comment beginning at 5:00 pm

**Location: Lyman F. Anderson Agriculture and Conservation Center
1 Fen Oak Court, Madison**

Participants in attendance:

Scott Rearson	Jack Von Rutenberg	Kevin Connors
Sue Jones	Melissa Sargent	Mike Kakuska
Melissa Mallot	Rob Phillips	Daniel Stepahny
Rick Gullickson	Allan Coville for Don Peterson	John Van Dinter
Tom McGinnis	Chin Wu	Richard Lathrop
Bill Fitzpatrick	Mike Amstadt	Dean Hein
Susan Tesarik	Lloyd Eagan	Sue Josheff
Mindy Habecker		

Participants absent:

Bill Mazanet	Chuck Rolfsmeyer	Kyle Richmond
Madison Mayor's Rep	Rick Kurz	Ed Minihan
Ken Potter	Kurt Welke	

1. Representative Introductions - All

2. Approval of Minutes – March 24, 2011 meeting

Rob Phillips moved to approve minutes with a second from Bill Fitzpatrick. There was no discussion. Minutes for the March 24, 2011 YLAG2 meeting were approved.

3. Check-in

Website will include the meeting schedule, agendas and minutes, handouts, PowerPoint presentations and public comments. It should be up and running very shortly. It is linked to

“www.countyofdane.com”, click on “**Departments**” on the left side of the screen, click on “**Land and Water Resources Department**”, click on “**Water**”, click on “**Lake level Data and Information**”. In the middle of the page, click on “**Yahara Lakes Water Level Advisory Group (YLAG2)**” or put

<http://www.countyofdane.com/lwr/landconservation/ylag.aspx> in your Bookmarks or Favorites.

Public comments will start at 5:00 pm on our meeting days so those that want to speak can plan to stay or arrive at that time. If public comments are submitted in written form, it will be posted on the website. If the comments are oral, a summary list of comments will be posted.

2001 YLAG recommendations were presented by Ken Johnson at the March 24, 2011 meeting. The progress on 2001 YLAG recommendations are linked to the YLAG2 website.

A list of important issues that are raised but not answered or resolved will be kept on a “Parking Lot” wall poster. The group will decide how those issues will be handled.

4. Dam Operation, 2007 and 2008 Floods – Kevin Connors, Dane County

Kevin Connor's PowerPoint presentation is on the website.

Discussion

- There was a comment that all flow meters measure differently. The flows used in Kevin's presentation were from USGS maintained sites.
- Flow into Lake Mendota was for the Yahara River only. It does not include contributions from Pheasant Branch, Six Mile Creek, stormwater, etc.
- cfs (cubic feet per second) is a rate of flow
- Acre-feet is a volume of water – the number of acres that would be covered with 1 foot of water
- 1 cfs = approximately 2 acre-feet/day
- Waubesa Dam had boards in for a week in April, 2008 otherwise boards have been out since August/2007
- Difference in flow at Waubesa from June 9 to June 14, 2008 was due to hydraulic head on the lake and weed cutting on the channel between Lakes Waubesa and Kegonsa.
- In 2000, record high on Lake Mendota – water flowed through the door of the boat house. It is dangerous to have a dam overtopping. During major floods, Dane County operates the Tenney Lock and Dam a maximum of about 4-inches lower than the record high level experienced in 2000.
- The Waubesa and Kegonsa Dams are scheduled for repairs – Lock rehabilitation, concrete repair and lift gates installed to replace stoplogs. Stoplogs are individually stacked boards that are removed and replaced to control flow from a dam.
- Low flow augmentation is required from a well to compensate for water removed from Lake Mendota for the UW power plants. An infiltration facility at Odana Golf Course compensates for the well pumpage.
- Other water is removed from Lake Mendota for irrigation
- Kevin Connors is in touch with the National Weather Service multiple times each day during floods
- Rainfall is measured at the airport – but varies over the basin.
- Dams are operated to maintain high flows out of the system.
- Future precipitation amounts are unknown when operating the dams during the flood. Looking back at how the dams were operated after flood has the advantage of knowing about the precipitation.
- Some felt that part of the reason lakes are so high is because they aren't drawn down enough in the winter. Sometimes the precipitation occurs early in the Spring and flooding may be influenced by the winter levels. When precipitation occurs later, the winter draw down doesn't affect the flood elevation.
- The runoff from the 2007 flood was very different from the 2008 flood. In August, 2007 precipitation fell on mature crops and other vegetation that help slow down and infiltrate some of the runoff. The June 2008 precipitation fell on very young vegetation with lots of exposed soil. With large amounts of rain and high intensity, only a portion of the precipitation can infiltrate while the rest runs off.
- The only control in the system is how much flow is let out of the Tenney Dam. The Tenney Dam gates can't be opened all the way during a flood without causing much more severe flooding on Monona.
- Lake Waubesa and Lake Kegonsa Dams submerge during floods meaning the water level up and downstream of the dams is the same. The amount of flow through the dam is controlled by the downstream channel and constrictions.
- Some believe that Lake Monona lake levels should be brought down at the same rate as Lake Mendota or even before Lake Mendota. Maintaining higher levels on Lake Monona causes more water to flow out of Lake Waubesa than at low Lake Monona levels. Passing more water out of Lake Waubesa will shorten flooding duration.

- Lake Mendota is much bigger than Lake Monona so the volume of one inch of water on Lake Mendota is at least 3-inches on Lake Monona.
- The Tenney Dam failed in 1959. Portions of the Isthmus area flooded.

5. Flooding and Damages, Dane County Flood Mitigation Plan – David Janda, Dane County
David Janda's PowerPoint is on the website

Discussion

- The dollar figures in the presentation are for all of Dane County and do not include environmental damage like sewage spills or wetland damages.
- Dane County's Hazards Plan includes a Tenney Dam failure.
- Neither the Dane County Plan nor the FEMA floodplain maps include the impact of climate change. The 100-year floodplain rainfall is based on precipitation records up to about 1960.
- Dane County floodplain maps are dated 2009. They include better topography but not new hydrology based on development or climate change over the last decade.
- Most of the flood damages are outside a mapped floodplain. FEMA defines flooding as overland water reaching a structure. It does not include sewer back up or groundwater seepage into a basement or subsurface portion of a building. FEMA doesn't usually map stormwater accumulation flooding, floodplains of less than 200 feet wide or with small drainage areas.
- Flooding is dynamic due to changes in topography, drainage patterns, etc.
- FEMA doesn't look at surface and groundwater interaction. Some of the homes are built in hydric soils. Hydric soils form under saturated, flooded or ponded conditions.
- Some areas that used to be internal drained (no outlet) are now being given an outlet.
- There is some high competitive grant money from FEMA to buy out and elevate homes in the floodplain. They must have a Benefit-Cost ratio of at least 1, meaning for every dollar spent on flood mitigation, you must save at least one dollar in flood damages.
- FEMA has paid to install pumps and to elevate a couple homes in the Monona Belle Isle area.
- There is a State funded Municipal Flood Control Grant Program that doesn't have the same Benefit-Cost ratio requirement.

6. Discuss potential future presenters and specific topics – All
Educational Gaps Needing to be Addressed – Handout

Group generally agreed to the following schedule:

May - Climate Change, Precipitation, Storm water, groundwater

June - Hydraulics

7. Discuss process - Mindy Habecker, Dane County UW-Extension

The next several meetings will be educational and based on the themes and content that the group generated at the March meeting. After this series of educational meetings, the group will be examining decision-making criteria to evaluate recommendations and making recommendation regarding the issues directly related to the charge given at the first meeting. The group will also have to look at if, and when they would like any field-based examination of the lakes system and what they want to do for additional public education outreach.

8. Next steps, future meeting dates, location and agenda items

Next meeting is May 26, 2011 at the Dane County's Land and Water Resources location at One Fen Oak, Madison. Climate Change, Precipitation, Storm water and groundwater presenters will be invited.

9. Public Comment

Three public members turned in sheets to speak. One provided written comments. The comments are summarized on a public comments spreadsheet on the website.