

**Lake Winnebago
Inter-Agency Regulation Meeting Minutes
24 October 2007**

1. **Introduction** The U.S. Army Corps of Engineers (USACE), Detroit District held its annual inter-agency regulation meeting at The Radisson Paper Valley Hotel in Appleton, Wisconsin. Mr. Michael O'Bryan, Chief of Engineering and Technical Services for the USACE, Detroit District, called the meeting to order at approximately 9:15 a.m.
2. **Attendees** A list of attendees is included at the end of the minutes.
3. **Presentation Agenda** Mr. O'Bryan opened the meeting with introductory remarks and self-introduction of all attendees. He then summarized the meeting agenda, which included a basin overview, 2006-2007 maintenance and repair work, 2006-2007 precipitation and weather conditions, a briefing on the 2006-2007 water level strategy, and discussion of the 2007-2008 water level strategy. Mr. O'Bryan thanked the many meeting participants for taking time to attend this important meeting. He explained that it is very important that the Corps continues to communicate with all the interested parties in the basin and listen to their concerns and suggestions. The presentation continued with a presentation by Mr. Bob Stanick and Mr. Rich Gifaldi.
4. **Lake Winnebago basin and controls** Mr. Rich Gifaldi described the 6,430 square mile Fox-Wolf-Winnebago watershed and its unique characteristics.
5. **Lake Winnebago Stakeholders** Mr. Bob Stanick, Chief of the Corps' Fox River Office, discussed the many competing uses and benefits of the water resources in the Fox-Wolf-Winnebago system. Benefits include recreational boating and associated activities, flood control, hydropower, commercial and industrial water supply, environmental and riparian interests. Mr. Stanick also presented an overview of the many stakeholders with a vested interest in the water resources of the system. Major stakeholders located along the 39-mile long Lower Fox River include the Neenah Water Plant, Water Board Warriors, WE Energies, Kaukauna Utilities, Fox River Papers, Sonoco U.S. Paper Mills, Stora Enso North America, Thilmany Papers and Kimberly Clark-Neenah Paper, to mention a few. Mr. Stanick emphasized that the USACE regulation of Lake Winnebago attempts to balance the needs and concerns of all stakeholders in its daily operations.
6. **2006-2007 Maintenance and Repair Work** Mr. Bob Stanick gave an overview of the maintenance and repair work that was conducted in the Fox-Wolf-Winnebago watershed this year. Highlights of the overview included before and after pictures from clearing and grubbing operations and a picture of the newly installed buoy ball cable at Appleton. It was pointed out that installation of the buoy ball cable at Appleton was a direct result of stakeholder requests at the

2005-2006 Lake Winnebago Regulation Meeting.

7. **Lake Winnebago Controls** The Federal dam at Menasha and the private dam at Neenah are the control points for outflow from Lake Winnebago. Flows released from these two dams discharge into the head of the Lower Fox River. Mr. Gifaldi explained how the Fox River Sub-Office crew operates the 6 gates at the Menasha dam while Neenah Paper operates the 14 gates on the dam in Neenah under direction of the USACE.
8. **Basin Data Collection** Mr. Gifaldi showed the locations of the 10 Data Collection Platforms (DCPs) located in the Winnebago basin. The 4 DCPs on Lake Winnebago and 1 DCP on Lake Poygan were noted and a brief explanation of the data they collect was offered. Mr. Gifaldi emphasized that the DCPs provide invaluable information for use in regulation activities on Lake Winnebago and the rest of the Fox-Wolf system. Mr. Gifaldi went on to discuss planned improvements to the data collection equipment.
9. **Basin Conditions.** Mr. Gifaldi reviewed basin conditions for the 2006-2007 regulation period. He touched on the meteorological explanation for the abnormally dry conditions experienced across Wisconsin this summer. Graphics from the Wisconsin Drought Monitor were used to show how the drought progressed in Wisconsin over the past summer. The past year's snowfall was compared to the average snowfall and monthly precipitation across the basin was compared with the average. A chart that displayed annual precipitation between the months of March and August was shown and it was demonstrated that historically if precipitation during these months is below average then the average lake water level for the summer will be below average.
10. **Lake Winnebago Water Levels 2005/2006** Mr. Bob Stanick explained that the lack of precipitation combined with evaporation from Lake Winnebago resulted in below-target water levels throughout the summer. All gates at the Neenah and Menasha dams were closed from May 22nd (the second earliest date in the last 25 years that all the gates were closed) through the end of the navigation season. Key regulation events and dates to note include:
 - a. The Corps began the 2007 drawdown on January 4, 2007.
 - b. The lowest lake level reached during the past year's drawdown period was 1.66 feet Oshkosh Datum on February 22, 2007.
 - c. Snow melt combined with spring rains resulted in a rapid increase in inflows to Lake Winnebago from mid-March to early April. Because ice was still tight to the shore on Lake Winnebago, multiple gates were opened to keep the lake rise to a minimum.
 - d. All the ice was out of Lake Winnebago on March 29th, at which time the Corps allowed a slow and controlled refill to begin.
 - e. From the middle of April through mid-May USACE kept close communication with the USFWS to coordinate regulation decisions with the sturgeon spawning activity near the DePere Dam.

- f. Water levels peaked on June 5, 2007^{at} 2.96 feet Oshkosh Datum.
- g. It was noted that evaporation estimates show that the amount of water lost by evaporation during the summer months is about the same as having a second Fox River flowing out of the lake.
- h. All gates at Menasha and Neenah remained closed from May 22nd through October 9th.

11. **Regulation Strategy, October 2007/September 2008** Mr. Stanick outlined the proposed “plan-of-action” for the next year. USACE proposed to drop the water level to a target 2.5 feet Oshkosh Datum and hold this level steady through ice formation, which usually occurs by early January. A suggestion was made to change this level to 2.2 feet to reduce potential ice damage. After discussion among meeting participants, it was agreed to draw the lake down to 2.2 feet Oshkosh Datum by ice formation. Maintaining the lake level constant through ice formation will enhance conditions for wildlife (furbearers) to establish winter homes along the lake margin. Beginning in January 2008, it was proposed to begin the winter drawdown once ice cover is established. The drawdown is critical to create flood control storage in the reservoir. The extent and timing of the drawdown will be established during a conference call in early January 2008 with experts and interested parties from the local area. When the ice cover has broken up in the spring, the Corps will hold a refill conference call and then begin the spring refill.

12. **Detroit District Home Page.** Mr. Stanick discussed a step-by-step outline for accessing Lake Winnebago information on the Detroit District Home page. He emphasized that this is the data that the USACE analyzes daily to regulate Lake Winnebago. The Lake Winnebago web page is:
www.lre.usace.army.mil/greatlakes/hh/lakewinebago.

13. **Questions and General Discussion** Following the formal presentation, there was open dialog among the attendees.

- a. The first question raised was whether or not the Corps could hold more water in the lake earlier in the year in order to have more water available to flush algae throughout the summer. It was explained by Ms. Strum that the extra storage capacity is needed to help hold heavy rains during the spring since spring precipitation is difficult to predict.
- b. Other similar questions were then asked by other lake property owners, questioning why more water wasn't held in the lake earlier in April and May of 2007 with potentially dry conditions predicted for the summer. Ms. Strum explained that all gates were closed at Menasha and Neenah very early this year, the second earliest date in the past 25 years, in order to account for the potentially dry conditions.
- c. A question was asked about whether or not we changed our drawdown strategy two years ago. Ms. Strum explained that three years ago the drawdown strategy was changed to maintain 2.5 feet Oshkosh Datum from fall to early January when a solid ice cover was established. The same

gentleman, who claimed to have property damage due to last year's ice conditions, requested that we lower the water level even further before the lake freezes up. Other individuals also spoke up to request this same item.

Mr. Art Techlow of WDNR explained that the drawdown in the fall had to be very gradual for environmental concerns, but agreed that the lake could be drawn down below the previously targeted level of 2.50. Mr. Techlow and Ms. Strum noted that conditions last December were unusual in that cold weather in early December established a firm ice cover and then warm weather and very windy conditions late in December caused an early ice breakup. It was under these unusual conditions that ice shoves occurred. Although these conditions were unique and would not be expected every year, the USACE agreed to reduce the water level to 2.20 before ice development to help reduce the potential damage from ice shoves.

- d. Another individual expressed concern that not drawing down the lake faster in the winter also leads to the freeze up of fire hydrant lines in the local lake communities. Mr. Bob Stanick responded to this question by stating that he had been in contact with the State of Wisconsin and state regulations require the hydrant drain ports to be plugged prior to installation and for the hydrant barrels to be pumped dry during freezing weather. This is the responsibility of the local municipality.
- e. A series of comments and questions were then brought up by more users of Lake Winnebago asking if a lake target of 3.0 by May 1st would be possible. The comment was made that the lake users would rather have high water and deal with flooding instead of having low water throughout the summer months. Mr. O'Bryan and Ms. Strum both explained that carrying high water in the lake could potentially lead to more frequent flooding, which would be irresponsible of the duties of the USACE. It was explained that this could harm many users of the lake and rivers by allowing very high flows, causing erosion, and property damage due to flooding. The Corps showed the water level graph from 2004, when unexpected precipitation caused the lake level to increase to over a foot above target and caused widespread problems with erosion, flooding, and boating restrictions.
- f. Another lake user commented that there seems to be more weed growth recently, much more than there used to be 20 years ago. He also commented that the water level seems to be held much lower than it was back then. Mr. Techlow responded that the long term average for the summer months shows that the lake is being held at the same level that it has been for a long time. He also stated that there has been more weed growth recently. He attributes this to clearer water and invasive species, and it is not based only on water levels.
- g. Other users expressed their displeasure about weed growth along the lake. There were complaints about how the weeds are hurting fishing, as lines get snagged on the weeds. Mr. Techlow again fielded these comments

explaining that the weed growth is not being driven by the current regulation of the lake, and also noted that the weeds provide more habitat for fish. It was also noted that the WDNR is investigating the invasive species of weeds and how to eliminate them.

- h. Questions were then asked about zebra mussels in Lake Winnebago. Users of the lake commented that their docks seem to have less zebra mussels on them than they had in the past. Mr. Techlow responded that it may just be a cycle and zebra mussel growth could increase again in the future. He stated that WDNR had begun a study to investigate zebra mussel colonization in the lake.
- i. Again a question was raised about how the lake is regulated in anticipation of weather predictions. Specifically one individual asked whether or not National Weather Service (NWS) predictions were used in regulation decisions, and also what types of NWS tools were used. Ms. Marie Strum stated that these predictions were factored into all decisions to the best of the USACE's abilities. Specifically it was stated that one day and five day Quantitative Precipitation Forecasts (QPFs) released by the NWS are frequently used while making regulation decisions.
- j. A couple of questions were then asked about the spillway at Neenah. One individual asked what was the reconstructed height of the Neenah spillway after the repairs. Mr. Bob Stanick answered that the spillway was brought up to a height equal to the old spillway plus flashboards. He also stated that a gate is currently slightly open at Neenah to account for the flow that used to leak through the old flashboards.
- k. One individual then asked about an old inflow pipe at Neenah that may be passing water around the dam. Mr. Mike O'Bryan, after consulting with other USACE personnel present, stated that the status of that situation was not known and would be looked into. Following the meeting, USACE investigated this pipe and found the pipe is blocked up and no longer in use.
- l. It was requested that the USACE leave a message on the website stating when the date is declared in the spring when all ice is officially out of the lake. Ms. Marie Strum stated that this date was posted in the "current conditions" link on the website, but that in the future this information would remain on the webpage for a longer period of time.
- m. The question was then asked about whether or not the bridge work south of DePere was being coordinated with the USACE's regulation of the lake. Mr. Bob Stanick responded that the contractors performing the work and the USACE have been communicating frequently to help facilitate their work whenever possible.
- n. Another lake user asked how the high river flows in 2004 hurt the power companies in the Lower Fox River. Mr. Mike Pederson, Generation Superintendent of Kaukauna Utilities, responded that the high flows carry large debris that damages their trash racks and intake structures to the power houses. Mr. Pederson also added that he is pleased with the

regulation of the lake and would like to see continued controlled releases of water from the lake, not quick changes.

- o. Concerns were then raised about rumors in the area about the USACE regulating the lake solely to meet the needs of the WDNR and the environmental needs of the system. Mr. Art Techlow responded by stating that if the WDNR had their way in regulating the lake, the regulation plan would be held much lower. He then stated that the ecosystem of the upper river and lakes has not been doing well due to high waters, and that the vegetation on Lake Winnebago has been doing well recently. Ms. Marie Strum also reinforced that the USACE takes many users of the system into account in making regulation decisions, not just the WDNR.
- p. An environmental question was then asked about the algae in the lake. The question dealt with how wind affects algae production during the summer. Mr. Art Techlow responded that winds do help to mix the water in the lake, which helps reduce the buildup of algae.
- q. Another environmental related question was asked about what caused the large amount of fish to die in the lake last winter. Mr. Art Techlow explained a large quantity of fish die in the lake each winter. In a normal winter they remain trapped under the ice and eventually sink to the bottom of the lake and decompose. The thaw that happened last December allowed many of the fish to get washed up on shore, so the dead fish were much more visible.
- r. The final concern raised was whether or not lock traffic would be maintained next season, even while all the gates were closed at Neenah and Menasha. Mr. Bob Stanick reassured everyone that lock traffic would be maintained throughout the season.

14. **Conclusion.** Ms. Marie Strum concluded the meeting by stating that the Lake Winnebago regulation strategy would be altered this year to reflect the stakeholder requests to drop the water level down to 2.2 feet above Oshkosh Datum by December. A conference call is planned during the first week of January to discuss the results and plan the winter drawdown as proposed at this meeting. Details on the conference call will be mailed to everyone on the Corps' mailing list and posted to the Lake Winnebago website.

15. **Closing Remarks.** Mr. O'Bryan thanked attendees for their attendance and the many productive comments generated during the meeting. The meeting adjourned at 11:00 am.

Attendees

Art Techlow	WDNR
Bill Steffen	Property Owner
Bob Stark	Fox River Navigation System Authority
Bob Stine	Boater
Chad Casper	Winnebago County
Craig Moser	US Representative Kagen's Office
Dave Hendricks	Menasha Dock Association Inc.
Dave Kramer	Property Owner
Dennis Arnoldssen	Fox River Navigation System Authority
Douglas Ales	WIPARTY.com
Ed Kleckner	East Central Wisconsin Planning Commission
Ed Updike	Menasha Dock Association Inc.
Frank Krueger	Neenah Paper
Gene Schmidt	Property Owner
Harlan Kiesow	Fox River Navigation System Authority
Harold Miller	Heckrodt Reserve
Jack Couillard	Property Owner
Jack Nelson	Fox River Navigation System Authority
Jack Quigley	Property Owner
Jackson Medley	Friends of the Fox
James L. Patt	Sturgeon for Tomorrow
Jay Weigelt	Thilmany Papers
Jeff Christensen	Radtko Contractors
Jr Lee Patt	Sturgeon for Tomorrow
Kurt M. Moore	Property Owner
Leon O.	Property Owner
Melissa Kok	US Representative Petri's Office
Mike Pedersen	Kaukauna Utilities
Rob Elliott	USFWS
Sherman Jacobson	Property Owner
Sherri Miller	Tri-County Powerboat Alliance
Steve Gohde	City of Oshkosh
Tom Buchta	Neenah Harbor Commission
Tom Donnelly	Fond Du Lac Yacht Club
Tyler Yasenak	USFWS
Walt Raith	East Central Wisconsin Planning Commission
Wayne Mueller	Property Owner
Bob Stanick	USACE
Dave Foster	USACE
David Haefs	USACE
Jim Bonetti	USACE
John Allis	USACE
Marie Strum	USACE
Mike O'Bryan	USACE
Rich Gifaldi	USACE
Scott Thieme	USACE