Water Level Management Update

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Pool 8 Water Level Reduction in 2001

A New Year has rolled around and we are again planning to conduct the Pool 8 water level reduction. Most of you are very familiar with the plan but the Water Level Management Task Force thought it would be important to remind you of the elements involved in the Pool 8 demonstration.

Two points in Pool 8 will be used to control the water level reduction, during the summer of 2001. The main point of control will be Lock and Dam 8 where water levels will be reduced by 1.5-feet. A second point for controlling the reduction is at the La Crosse Gage (Isle La Plume) were the maximum reduction will be 0.5-feet. When each one of these control points comes into play is a function of the amount of flow coming down the river. The water level at Lock and Dam 8 would be held at 628.5 mean sea level elevation (1.5 feet below normal operations) until the elevation at the La Crosse gage reaches 4.2 (630.5 elevation). Once the flow at Lock and Dam 8 drops below 28,000 cubic feet per second the control point will flip to La Crosse Gage. When flows fall below this level, water will be raised in the lower portion of the pool 8 to maintain the 4.2 gage reading at the La Crosse gage.

The purpose of implementing a water level reduction with a minimum elevation at the La Crosse gage is to minimize the effects on commercial and recreational uses in the upper portion of the pool where most facilities are located. Portions of the pool located north of the La Crosse gage will have up to a half-foot reduction, while areas south of the gage will have reductions between a half a foot and 1.5 feet. This reduction will occur during a time window from June 15 to September 15, 2001.

Specific information about water levels can be found in the inside article, "How Much of a reduction will I notice".

Communication will be important

Providing information about the water level reduction is vital. With this in mind we have developed a number of methods to get information out about the reduction and also receive information back from citizens. Here are a few resources that will be available.

- A phone number, 1-800-218-8917, will be available beginning May 1, 2001 to call and get updates about the project. Callers will also be given an opportunity to leave a message about the project for the managing agencies.
- Newsletters will continue to go out to over 900 people before, during and after the project to provide progress reports.
- Articles will be submitted to local newspapers to provide information updates.
- Signs will be posted at the boat landings and marinas indicating that the reduction is underway and users should be mindful of water level conditions.
- Look up www.mvp.usace.army.mil and search under Special Projects to find updates on the web.
- We are available to come talk with groups about the water level reduction. Call Gretchen Benjamin at (608) 785-9982 to arrange a presentation.

How much of a reduction will I notice?

How much river users will notice the water level reduction will depend on where they are located within Pool 8 and what the river flows are. Below are two examples of what you could expect at different locations and different water flows.

At approximately, 42,000 cubic feet second or relatively high summer flows.

- La Crosse Gage (River Mile 696.8)– no impact from current low flow conditions (4.7 at the gage)
- Root River (River Mile 693.7) – no impact from current low flow conditions
- Brownsville, MN (River Mile 689.0) – one inch reduction from current low flow
- Stoddard, WI (River Mile 685.9) – 13 inch reduction from current low flow
- Genoa, WI (River Mile 679.2) – 18 inch reduction from current low flow

At approximately, 28,000 cubic feet per second or relatively normal summer flows.

- La Crosse Gage – 6 inch reduction from current low flow (4.2 at the gage)
- Mouth of the Root River (River Mile 693.7) – 11 inch reduction from normal summer low fl
- Brownsville, MN – 17 inch reduction from normal summer low flows (-1.4')
- Stoddard, WI – 17 inch reduction from normal summer low flows (-1.4')
- Lock and Dam 8 – 18 inch reduction from normal summer low flows (-1.5')

Once flows are below 28,000 cubic feet per second the water reduction at Lock and Dam 8 will be brought up to maintain a maximum reduction at the

USGS continues experiments during summer 2000

La Crosse Gage of 0.5 feet.
Although the water level reduction did not occur last summer, researchers, like Kevin Kenow, U.S. Geological Survey, were still out on the river collecting data. His work will help river managers better understand current river conditions and assess changes during and after the reduction.

One of the main functions of the reduction is to increase the area of emergent (edge plants) and submersed (grow completely under the water) aquatic vegetation. To understand the availability of seed, Mr. Kenow and his students took sediment samples from a number of randomly chosen areas and divided them into 4 equal portions. Each portion was spread over sterile soil and exposed to one of four conditions; allowed to dry (dry), exposed but kept moist (moist), covered with about an inch of water (shallow flooded), and covered with about 24 inches of water (submerged). The experiment started the first of May and containers were monitored for plant growth on a regular basis (i.e., 2-3 times per week) through the end of August.

Fifty species were identified in the seed bank, including 10 submersed aquatic species, 30 wetland species and 10 terrestrial species. Three exotic species were found in the seed bank, reed canary grass, purple loosestrife, and curly leaf pondweed.

Conducting these seed bank experiments is an effective way of predicting the types of vegetation that may develop during water level reductions. Mr. Kenow will conduct vegetation surveys during and after the reduction to determine if the predictions of this experiment are realized in

What effect did last summer's low water levels have?

The question is often asked, "Didn't the low river discharges we had in the late summer of 2000 accomplish the same thing a drawdown would?" The answer is depends upon which portion of pool 8 you are referring to. For that part of pool 8 below the La Crosse gage, the answer is "no", and for the part above the gage, the answer is "a little bit". This is all the result of the hinge-point method of pool regulation during periods when river discharges are low (under 23,000 cfs for pool 8).

For areas near Lock and Dam 8, the pool level has remained above 630.0 since the early 1970's. The proposed drawdown will lower pool levels as low as 628.5 in these areas. Under current water regulation procedures, the pool level at the dam varies from 630.0 to 631.0 for all discharges below 96,000 cfs, even the low discharges experienced late last summer. Between river discharges of 23,000 cfs and 96,000 cfs, the pool at Lock and Dam 8 is held at elevation 630.0. When river discharges fall below 23,000 cfs, an elevation of 631.0 is maintained at the La Crosse gage and the pool is allowed to rise at Lock and Dam 8 to elevation 631.0. Thus, when low river discharges occurred this past summer in August and September, the pool below the La Crosse gage is actually held up to one foot higher than what occurs when discharges are in the 23,000 to 96,000 cfs range.

For those portions of the pool above the La Crosse gage, the low discharges last summer did result in lower water levels similar to what will occur with the drawdown. However, the drawdown above the La Crosse gage will be limited to 0.5 foot or less, so the effects in this part of the pool will be relatively minor.

Why Pool 8? - Still a frequently asked question.

A number of criteria went into the selection of Pool 8 over the other ten pools for the first demonstration of a large-scale water level reduction. Pool 8 ranked very high in most of the categories. Below are the five main reasons why Pool 8 was selected.

1. Lower Pool 8 contains a large expanse of open water with marginal quality aquatic vegetation that could benefit from this technique, which would dry sediment and improve plant growth.
2. Dredging quantities to maintain a nine-foot channel are minimal for an 18-inch water level reduction.
3. At the public meetings there was support for a reduction in Pool 8.
4. The impacts on angling, boating and other forms of recreation are manageable because the majority of recreational facilities (docks, marinas, etc.) are located in the upper portion of Pool 8. The water level reduction at the dam, (Genoa) will be the full 18 inches but upstream of the area the reduction will be less due to the slope of the pool. Upper Pool 8 from Isle La Plume to Lock and Dam 7 will have a maximum reduction of 6 inches.
5. A comprehensive monitoring program can be done economically due to the extensive and continuous monitoring already underway on Pool 8. Supplemental monitoring could be done by the numerous agencies working on the river near La Crosse, WI.

Water Level Management Update
3550 Mormon Coulee Rd
La Crosse, WI 54601

Who can I contact about Pool 8 Water Level Reduction?

Gretchen Benjamin
Wisconsin Dept. of Natural Resources
3550 Mormon Coulee Road
La Crosse, WI 54601
(608) 785-9982
Wisconsin DNR contact

Tim Schlagenhaft
Minnesota Department of Natural Resources
1801 South Oak Street
Lake City, MN 55041
(651) 345-3365
Minnesota DNR contact

Dick Otto
US Army Corps of Engineers
1114 South Oak Street
La Crescent, MN 55947
(507)895-6341
Local Corps of Engineers Contact

Jim Nissen
US Fish and Wildlife Service
555 Lester Ave
Onalaska, WI 54650
(608) 783-8404
District Manager for Pools 7 and 8 – USFWS