

January 9, 2018 MDNR comments on UPPCO's January 4, 2018 revised report

Shawn Puzen

From: Gulotty, Elle (DNR) <GulottyE@michigan.gov>
Sent: Tuesday, January 09, 2018 8:35 AM
To: Shawn Puzen; Oun, Amira (DEQ); burr_fisher@fws.gov
Cc: Katie Kern; Schlorke, Virgil E; Kenneth M. Carruthers; Kohlhepp, Gary (DEQ); Kruger, Kyle (DNR); jimgrundstrom@freichevy.com
Subject: RE: Revised three-year test period final report for your comment-comments due EOB January 10, 2018.

Hi Shawn,

I want to make sure I understand one facet of the the updated proposal.

For Silver Lake Storage Basin, can you explain the maximum change (amount and over what time) in elevations that you'd expect to occur outside of the spring runoff capture period? Specifically, if the minimums are held at the levels in the existing certification/license, and the targets are raised to the spillway, will there be circumstances where the reservoir is allowed to fluctuate more than the 1.5 feet or so which approximates the difference between target elevations and minimum elevations in the current license?

Similarly, is it correct that the runoff capture period would represent a relatively fast, substantial, filling of the basin once per year, with a gradual drawdown to meet recreation targets downstream, and that there would not be circumstances where the system would be operated (drawn down again) to capture, say a multi-week summer storm or similar event?

Thank you,

Elle

UPPCO response to January 9, 2018 MDNR comments on UPPCO's January 4, 2018 revised report

Shawn Puzen

From: Shawn Puzen
Sent: Tuesday, January 09, 2018 11:54 AM
To: 'Gulotty, Elle (DNR)'; Oun, Amira (DEQ); burr_fisher@fws.gov
Cc: Katie Kern; Schlorke, Virgil E; Kenneth M. Carruthers; Kohlhepp, Gary (DEQ); Kruger, Kyle (DNR); jimgrundstrom@freichevy.com
Subject: RE: Revised three-year test period final report for your comment-comments due EOB January 10, 2018.
Categories: Filed by Newforma

Hi Elle,

Thank you for asking for this clarification. I think it is best to address your concerns one at a time. UPPCO responses are in Green.

Please note: the responses do not require modifications to the recommendations included in the revised draft provided to you for comment on January 4, 2018. UPPCO will need to correct the SLSB spillway elevation in the revised draft to read 1485.04 feet NGVD throughout the document.

For Silver Lake Storage Basin, can you explain the maximum change (amount and over what time) in elevations that you'd expect to occur outside of the spring runoff capture period?

Long Answer:

Under the report sent to you on January 4, 2018, (revised report), during spring runoff, UPPCO would target the top of the spillway at 1485.04 feet NGVD (revised report mistakenly said 1485.02 was the top of spillway). The purpose is to meet the Start of Month Target for May (May 1). UPPCO will continue to target the top of the spillway through the month of May, through the month of June, until July 1.

During the month of May (after spring runoff) the elevation will be held at approximately 1485.04 until July 1. According to Article 402 requires UPPCO to "strive to operate the existing project facilities to achieve the start of month target elevations..." Therefore, UPPCO has to target the top of the spillway May 1 to July if the start of month target elevations for May, June, and July are changed to the top of the spillway.

After July 1, in looking at the inflows that occur during that year, water will need to be withdrawn from SLSB Lake to keep the DRSB at its start of month targets August 1 through November 1 of 1341.0. The extra inflow of water from SLSB to DRSB is necessary to maintain the minimum flow releases of 100 cfs from DRSB during mid to late summer because evaporation in the DRSB is higher and inflows to the DRSB are near or below 100 cfs. Therefore, targets needed to be established for August and September to meet the October start of month target of 1479.5. UPPCO recommended in the revised report the reduction of target elevation over a three-month time period (July, August, and September). The August 1 start of month target elevation was recommended to be 1483.2 feet (reduction of 1.84 feet in July). The September 1 start of month target elevation was recommended to be 1481.4 feet (reduction of 1.8 feet in August). The October 1 start of month target elevation is currently 1479.5 and recommended to be the same (reduction of 1.9 feet in September). The major reductions in elevation will occur prior to herptile hibernation for the year.

Short Answer:

During May there will be very little fluctuation after the SLSB is filled to the top of the spillway. Increased inflows in addition to what UPPCO is releasing through the low-level outlet may cause the elevation to rise above the spillway to release increased inflows (a 0.2 foot rise above the spillway releases approximately 50 cfs).

During June there will be very little fluctuation after the SLSB is filled to the top of the spillway. Increased inflows in addition to what UPPCO is releasing through the low-level outlet may cause the elevation to rise above the spillway to release increased inflows (a 0.2 foot rise above the spillway releases approximately 50 cfs).

During July, the reservoir will be reduced from targeting 1485.04 to targeting 1483.2 feet by August 1 (1.84 foot reduction).

During August, the reservoir will be reduced from targeting 1483.2 to targeting 1481.4 feet by September 1 (1.8 foot reduction).

During September, the reservoir will be reduced from targeting 1481.4 to targeting 1479.5 feet by October 1 (1.9 foot reduction).

Specifically, if the minimums are held at the levels in the existing certification/license, and the targets are raised to the spillway, will there be circumstances where the reservoir is allowed to fluctuate more than the 1.5 feet or so which approximates the difference between target elevations and minimum elevations in the current license?

Long Answer:

Ordering paragraph (C) of the Order Modifying and Approving Article 405 Operations Monitoring Plan dated March 11, 2010, prohibits UPPCO from intentionally creating circumstances where the reservoir is allowed to fluctuate more than 1.5 feet or so. This is because paragraph C of the Order states: "after the start of the month, the licensee shall operate the reservoirs in an effort to move toward the next start of month target elevation." The minimum elevations are used to initiate the dry-year consultation process when actions beyond UPPCO's control cause the reservoir to drop to the minimum level (i.e. inflows are less than the required minimum flow releases and the reservoir elevation is lowered)." Paragraph (E) of the March 11, 2010 Order states: "If reservoir inflow is insufficient to maintain minimum reservoir elevation requirements at any of the project developments, the licensee shall implement the dry year consultation process.....The licensee shall begin the dry-year consultation process no later than the first business day following the day when the reservoir decreases below the required minimum elevation due to low inflow conditions."

Short Answer:

No, not while the operation is under the control of UPPCO.

Similarly, is it correct that the runoff capture period would represent a relatively fast, substantial, filling of the basin once per year, with a gradual drawdown to meet recreation targets downstream, and that there would not be circumstances where the system would be operated (drawn down again) to capture, say a multi-week summer storm or similar event?

Long Answer:

The SLSB reservoir fills rather quickly during spring runoff. The water is stored at SLSB until mid to late summer when it needs to be released to the DRSB to meet the downstream recreation targets at DRSB. Operation that is NOT in an "effort to move toward the next start of month target elevation" is prohibited by paragraph (C) of the March 11, 2010 Order (drawing down when the next monthly target is NOT a lower elevation). UPPCO cannot draw down in anticipation of a storm during under its recommended target elevations at SLSB for May, June, and July without undergoing the planned deviation process in consultation with the stakeholders.

Short Answer:

Correct, the runoff period is generally a relatively fast, substantial filling of the reservoir once per year, with a gradual drawdown. Drawing down again to capture a multi-week summer storm or similar event is prohibited without UPPCO initiating the process for a planned deviation.

Please feel free to call me with questions.

Thanks!

January 10, 2018 MDNR comments on UPPCO's January 4, 2018 revised report

Shawn Puzen

From: Gulotty, Elle (DNR) <GulottyE@michigan.gov>
Sent: Wednesday, January 10, 2018 1:41 PM
To: Shawn Puzen; Oun, Amira (DEQ); burr_fisher@fws.gov
Cc: Katie Kern; Schlorke, Virgil E; Kenneth M. Carruthers; Kohlhepp, Gary (DEQ); Kruger, Kyle (DNR); jimgrundstrom@freichevy.com
Subject: RE: Revised three-year test period final report for your comment-comments due EOB January 10, 2018.

Shawn,

A few additional areas of concern came to mind that I do not think I have articulated yet. If I clearly have missed something, please bring it to my attention.

This summer, and I believe rather frequently in the recent past, the elevation at Hoist has been substantially higher than the targets for extended periods (whether meeting the monthly targets or not).

I am interested in whether UPPCO expects the frequency or duration of deviations where Hoist is above its targets to change (increase) under the scenario UPPCO has proposed for operations. As I understand it, there are implications for high water as well as low water elevations at Hoist for resource users and landowners, and that from a fisheries standpoint we are additionally concerned about the impact of elevation fluctuations during important spawning and recruitment periods, as well as due to concerns about erosion.

If it is the case that Hoist is above the target and additional inflows are expected, can you please describe how the elevation at Hoist would be managed (and note if different based on the new proposal). Please describe when the LLO systems would be used to alleviate elevation exceedances at the impoundments.

I am also interested in UPPCO reiterating the order of priorities for operations as far as elevation, minimum flow, etc.

Will there be circumstances foreseeable under the proposed scenario where Hoist will play an emphasized role for storage?

If UPPCO's recommended elevations were adopted, what would happen if Silver lake doesn't come close to meeting the target elevations following spring runoff?

Alternatively, what would happen if Silver lake stores that additional flow earlier than expected?

Separately, who is the author of the "quick facts" which were distributed to Amira and George and I?

Thank you,

Elle

UPPCO response to January 10, 2018 MDNR comments on UPPCO's January 4, 2018 revised report

Shawn Puzen

From: Shawn Puzen
Sent: Thursday, January 11, 2018 8:03 AM
To: 'Gulotty, Elle (DNR)'; Oun, Amira (DEQ); burr_fisher@fws.gov
Cc: Katie Kern; Schlorke, Virgil E; Kenneth M. Carruthers; Kohlhepp, Gary (DEQ); Kruger, Kyle (DNR); jimgrundstrom@freichevy.com; Joshua Ball
Subject: RE: Revised three-year test period final report for your comment-comments due EOB January 10, 2018.

Categories: Filed by Newforma

Hi Elle,

Thanks for asking the questions.

Comment:

This summer, and I believe rather frequently in the recent past, the elevation at Hoist has been substantially higher than the targets for extended periods (whether meeting the monthly targets or not).

I am interested in whether UPPCO expects the frequency or duration of deviations where Hoist is above its targets to change (increase) under the scenario UPPCO has proposed for operations. As I understand it, there are implications for high water as well as low water elevations at Hoist for resource users and landowners, and that from a fisheries standpoint we are additionally concerned about the impact of elevation fluctuations during important spawning and recruitment periods, as well as due to concerns about erosion.

UPPCO Response:

Based upon the Hydraulic model, the recommendations contained in the January 4, 2018 revised report are not expected to increase the frequency or durations of exceedances of the required targets at DRSB (Hoist). Please remember, SLSB provides less than 20% of the inflow into the DRSB. The revised report recommends target elevations at SLSB that are expected to augment inflows to DRSB and help maintain the DRSB target elevation when total inflows to the DRSB plus evaporation become less than the required 100 cfs minimum flow release from the DRSB.

The report also recommends a meeting of the stakeholders prior to spring runoff. During this meeting, the amount of drawdown in anticipation of spring runoff to avoid raising the DRSB significantly above the summer recreation target is decided. The pre-spring runoff actions at DRSB are the most important actions to avoid raising the DRSB significantly above the summer recreation target.

Comment:

If it is the case that Hoist is above the target and additional inflows are expected, can you please describe how the elevation at Hoist would be managed (and note if different based on the new proposal). Please describe when the LLO systems would be used to alleviate elevation exceedances at the impoundments.

UPPCO Response:

The DRSB elevations above target are most impacted by the pre-spring runoff actions at DRSB. Since the SLSB provides less than 20% of the inflow into the DRSB and the major changes are recommended at SLSB, the recommended changes are not expected to increase the frequency or durations of exceedances of the required targets at DRSB. Therefore, the use of the LLO system at DRSB is not required or expected to change as a result of the recommended changes.

Comment:

I am also interested in UPPCO reiterating the order of priorities for operations as far as elevation, minimum flow, etc.

UPPCO Response:

First priority: maintain minimum flow releases (as recommended in the test report)

Second priority: Target elevations

Third priority: Minimum reservoir elevations (as recommended in the test report)

When elevations approach minimum elevations, dry-year consultation occurs to determine next actions.

Comment:

Will there be circumstances foreseeable under the proposed scenario where Hoist will play an emphasized role for storage?

UPPCO Response:

The need to provide extra storage at the DRSB prior to spring runoff is required to avoid raising the DRSB significantly above the summer recreation targets.

Comment:

If UPPCO's recommended elevations were adopted, what would happen if Silver lake doesn't come close to meeting the target elevations following spring runoff?

Alternatively, what would happen if Silver lake stores that additional flow earlier than expected?

UPPCO Response:

If a start of month target is not met, the license requires UPPCO to strive toward the start of month target for the following month. For example, if the SLSB elevation rises to 1484.5 during spring runoff in the month of May, UPPCO is required to continue to release no more than minimum flows until the SLSB elevation rises to 1485.04 feet (the start of month target for June). If the SLSB does not rise to the target of 1485.04 feet by June, UPPCO is required to continue to release no more than minimum flows until the SLSB elevation rises to 1485.04 feet (the start of month target for July). After July 1, UPPCO is required to make releases to strive to meet the August start of month target for August 1 (UPPCO recommends an August start of month target of 1483.2).

If spring runoff arrives prior to April 1 and it appears the April start of month target of 1477.5, UPPCO will either have to increase releases to lower SLSB elevation to the target by April 1 or consult on a planned deviation to keep the spring runoff stored in SLSB until it begins to increase releases to meet the August start of month target elevation.

Comment:

Separately, who is the author of the "quick facts" which were distributed to Amira and George and I?

UPPCO Response:

You will have to talk to Ken or Virgil separately about the author(s).

Thanks!

Shawn Puzen | FERC Licensing & Compliance Senior Project Manager

Mead & Hunt | 13458 North Road | Green Bay, WI 54313

Direct: 920-593-6865 | Mobile: 920-639-2480

shawn.puzen@meadhunt.com | meadhunt.com

<https://www.linkedin.com/in/shawnpuzen>

THE U.S. FISH AND WILDLIFE SERVICE (FWS) DID NOT RESPOND WITH COMMENTS

Document Content(s)

2018112 DRV Test Period.PDF.....1-1

2018112 DRV Test Period_ATTACH.PDF.....2-1126