



Upper Peninsula Power Company
1002 Harbor Hills Drive
Marquette, MI 49855
www.UPPCO.com

August 26, 2015

FERC Project No. 2506
NATDAM No. 00167

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Secretary Bose:

Escanaba River Hydroelectric Project – Boney Falls Development
Notice of Potential Deviation – Escanaba River Hydroelectric Project Water Quality Monitoring

Per the Order Modifying and Approving the Water Quality Monitoring Plan under Article 415, dated March 9, 2005, Upper Peninsula Power Company (UPPCO) is conducting water quality monitoring at the following locations within the Escanaba River Hydroelectric Project:

- In the tailrace of Escanaba Boney Falls (Dam #4), approximately 600 feet downstream of the powerhouse
 - The dissolved oxygen standard for Boney Falls (Dam #4) is: 7.0 mg/L
 - The water quality monitoring equipment has a manufacturer-rated accuracy of ± 0.1 mg/L. Given this information, readings below 6.9 mg/L at Boney Falls (Dam #4) are potential deviations from the D.O. standard
- Additionally, UPPCO attempts to operate Boney Falls (Dam #4) at temperatures specified by the Michigan Coldwater Stream Standard.
 - The standard for the month of August is: 68°F

Monitoring is completed in accordance with the Water Quality Monitoring Plan. Dissolved Oxygen (D.O.) data is collected continuously throughout the annual monitoring period at Boney Falls (Dam #4). Additionally, equipment is cleaned, calibrated and data downloaded weekly during the month of July, and bi-weekly during the month of August.

After collection, a post calibration of the monitoring equipment is conducted to determine calibration drift. Raw dissolved oxygen (D.O.) data is adjusted assuming a linear degradation of the calibration based upon the post calibration of the equipment.

During the monitoring period of August 3 at 14:00 EST through August 17 at 12:00 EST (when equipment maintenance occurred), dissolved oxygen readings below 7.0 mg/l were observed August 3 thru July 30 and again on August 17. After verifying and correcting (as necessary) the monitoring data for calibration drift, the lowest D.O. concentration observed was 3.8 mg/l on August 4. The likely cause of the low D.O. levels observed was due to plant build-up around the probes, which had an impact on monitoring. This was corrected after 16:00 EST on August 4. Other causes for low D.O. readings are due to high water temperatures. Daily average water temperatures during this time period ranged from 70°F to 73°F, with daily maximum temperatures reaching a high for the monitoring period of 74°F on August 16.

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During the monitoring period, flow augmentation was initiated daily on August 3 and August 7, and daily through the time period of August 11 to August 17. Flow augmentation¹ is initiated in an attempt to mitigate warm water temperatures in the Escanaba River downstream of the powerhouse.

Dissolved oxygen corrective action occurred, as required by the approved plan², on August 4, August 11, August 13, August 14, August 15, and August 17.

UPPCO provided notice of the low D.O. readings to the Michigan Department of Natural Resources (MDNR), Michigan Department of Environmental Quality (MDEQ), and the U.S. Fish and Wildlife Service (FWS) via e-mail on August 21st. Documentation of agency consultation is attached.

If you have any questions regarding this letter, please contact Bob Meyers at (906) 485-2419 or Jarrod Nelson at (906) 232-1433.

Sincerely,



Virgil Schlorke
Director - Energy Supply & Resource Planning

jfn/rjv

Enc: 20150728 Agency Notification

cc: Mr. James Melchiori, UPPCO - UVD Mr. David Tripp, UPPCO - UISC
Mr. Robert Meyers, UPPCO - UISC Mr. John Zygaj, FERC - CRO
Mr. Keith Moyle, UPPCO - UISC Mr. John Myers - D2
Mr. Jarrod Nelson, UPPCO - UISC

¹ As part of the procedure, when augmentation is initiated, flow from the powerhouse is increased to 150 percent of the base flow between 11:00 EST and 18:00 EST; the flow is then reduced to 75 percent of the base flow to allow the reservoir to refill.

² The approved plan requires corrective action when real time monitoring indicates dissolved oxygen levels were less than 7.0 mg/l downstream of the powerhouse. Flow augmentation is a corrective action and when the facility is not augmenting flow, corrective action is initiated by releasing aeration flow through a spillway gate.

All,

Per the Order dated March 9, 2005, approving modifications to the Dissolved Oxygen Monitoring Plan as required by Article 415 in the License issued July 13, 1995 and amended November 4, 2013, UPPCO is conducting annual monitoring of dissolved oxygen (D.O.) downstream of its Boney Falls (Dam #4) development. Data is collected continuously throughout the annual monitoring period. Additionally, equipment is cleaned, calibrated and data downloaded weekly in the month of July and bi-weekly in the month of August. Manufacturer specifications indicate that the accuracy of the D.O. monitoring equipment is ± 0.1 mg/L, therefore, readings below 6.9 mg/L are potential deviations. Raw data is adjusted assuming a linear degradation of calibration based upon post-calibration of equipment.

UPPCO is required to meet the water quality standard of 7.0 mg/L for D.O. below the Boney Falls (Dam #4) development. UPPCO attempts to meet the D.O. standard by releasing water out of spillway gates in the event that D.O. readings are below 7.0 mg/L.

UPPCO also makes attempts to meet the cold water stream requirements for Michigan below the Boney Falls (Dam #4) development in an effort to maintain trout fishery integrity. UPPCO augments flow from the powerhouse during times of high temperatures, as a method for reducing temperatures. The augmentation consists of increasing flows to 150% of base flow between 11:00 EST and 18:00 EST, then reducing flows to 75% of base flows in order to allow the reservoir to refill. Suggested cold water temperatures for July and August are 68°F.

Dates for the most recent period of D.O. monitoring were August 3 to August 17. Dissolved oxygen corrective action occurred at UPPCO's Escanaba Boney Falls (Dam #4) development August 3 at 0900CST to August 4 at 1000CST and resumed at 1300CST to 1600CST. It was discovered that weeds were built up around the sensor which resulted in anomalous D.O. readings from 1000CST to 1600CST on August 4. It should also be noted that temperature data on August 13 from 2100CST to 2200CST is missing due to a lightning strike, which caused a disruption at the Boney Falls (Dam #4) powerhouse. This issued was resolved and only resulted in the loss of two readings from August 13.

Dissolved oxygen corrective action did not resume until August 11 from 0700CST to 1000CST and again on August 13 from 0700CST to 1000CST. Augmentation was also occurring on and off during this timeframe, which can be seen in the attached data summary. Three more instances of D.O. augmentation were observed August 14 through August 17. Deviations from the dissolved oxygen standard of 7.0mg/L or greater are likely due to high temperatures observed during the times which D.O. was at lower readings.

Attached for your review is the data for the months of July and August as well as a graphical summary of the data. Please feel free to contact me if you have any questions at (906)232-1433.

Thank you,
-Jarrod Nelson

Jarrod Nelson, Certified Associate Ecologist (ESA)
Environmental Consultant | Upper Peninsula Power Company

Cell: (989)600-5665

Direct: (906)232-1433

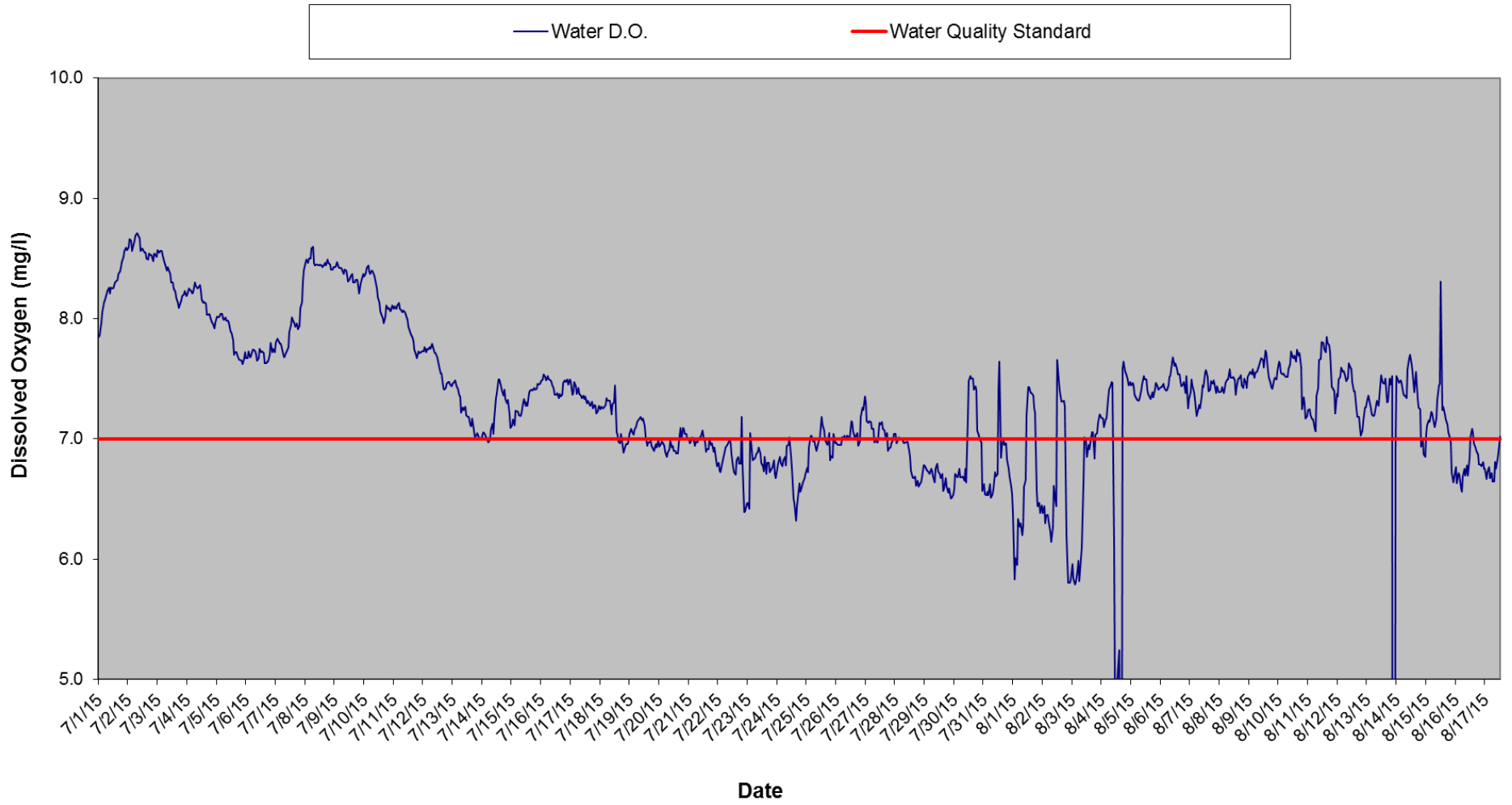
Email: jfnelson@uppc.com

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Escanaba Dam 4 Dissolved Oxygen Summary 2015 Monitoring Period



License Minimum Dissolved Oxygen: 7.0 mg/l

Augmentation Event

DO corrective action occurring. Water being released through spillway gate.

No DO corrective action or flow augmentation occurring.

Isolation Mode: Minimum flow being released through powerhouse. All other flow released through gate.

Time

HHMMSS	07/01/15	07/02/15	07/03/15	07/04/15	07/05/15	07/06/15	07/07/15	07/08/15	07/09/15	07/10/15	07/11/15	07/12/15	07/13/15	07/14/15	07/15/15
0	7.9	8.6	8.6	8.2	8.0	7.7	7.8	8.5	8.4	8.4	8.1	7.7	7.5	7.0	7.1
10000	7.9	8.7	8.6	8.3	8.0	7.7	7.8	8.5	8.4	8.4	8.1	7.8	7.5	7.1	7.2
20000	8.0	8.7	8.6	8.2	8.0	7.7	7.8	8.5	8.5	8.4	8.1	7.7	7.5	7.0	7.1
30000	8.1	8.6	8.6	8.2	8.0	7.7	7.8	8.5	8.4	8.4	8.1	7.8	7.4	7.0	7.2
40000	8.1	8.6	8.5	8.2	8.0	7.7	7.8	8.5	8.4	8.4	8.1	7.7	7.4	7.0	7.2
50000	8.2	8.7	8.5	8.2	8.0	7.7	7.8	8.6	8.4	8.4	8.1	7.8	7.4	7.0	7.2
60000	8.2	8.7	8.5	8.3	8.0	7.7	7.7	8.6	8.4	8.4	8.1	7.8	7.4	7.0	7.2
70000	8.2	8.7	8.4	8.3	8.0	7.7	7.7	8.5	8.4	8.4	8.1	7.8	7.2	7.1	7.2
80000	8.3	8.7	8.4	8.3	8.0	7.7	7.7	8.4	8.4	8.4	8.1	7.8	7.3	7.1	7.2
90000	8.2	8.7	8.4	8.3	8.0	7.7	7.7	8.5	8.4	8.3	8.1	7.7	7.2	7.0	7.3
100000	8.3	8.6	8.4	8.3	8.0	7.7	7.8	8.5	8.4	8.3	8.0	7.7	7.3	7.2	7.3
110000	8.3	8.6	8.3	8.2	7.9	7.8	7.9	8.4	8.3	8.2	8.0	7.7	7.2	7.3	7.3
120000	8.3	8.6	8.3	8.2	7.9	7.7	8.0	8.5	8.3	8.1	7.9	7.6	7.2	7.4	7.3
130000	8.3	8.6	8.3	8.1	7.8	7.7	8.0	8.4	8.4	8.1	7.9	7.6	7.2	7.5	7.3
140000	8.3	8.6	8.2	8.1	7.7	7.7	8.0	8.4	8.4	8.0	7.9	7.5	7.1	7.5	7.4
150000	8.3	8.5	8.2	8.1	7.7	7.6	8.0	8.5	8.3	8.0	7.8	7.5	7.1	7.4	7.4
160000	8.4	8.5	8.1	8.0	7.7	7.6	7.9	8.5	8.3	8.0	7.8	7.4	7.2	7.4	7.4
170000	8.4	8.5	8.1	8.0	7.7	7.6	8.0	8.4	8.3	8.0	7.7	7.4	7.1	7.4	7.4
180000	8.4	8.5	8.1	8.0	7.7	7.6	7.9	8.5	8.3	8.1	7.7	7.4	7.0	7.4	7.4
190000	8.5	8.5	8.2	8.0	7.7	7.7	7.9	8.5	8.3	8.1	7.7	7.5	7.0	7.3	7.4
200000	8.5	8.5	8.2	8.0	7.7	7.8	8.1	8.5	8.2	8.1	7.7	7.5	7.1	7.3	7.4
210000	8.6	8.5	8.2	8.0	7.6	7.7	8.1	8.4	8.3	8.1	7.7	7.5	7.0	7.3	7.5
220000	8.6	8.5	8.2	7.9	7.7	7.8	8.3	8.4	8.3	8.1	7.7	7.5	7.0	7.2	7.4
230000	8.6	8.5	8.2	8.0	7.7	7.7	8.4	8.4	8.4	8.1	7.7	7.4	7.0	7.1	7.5
Daily Max	8.6	8.7	8.6	8.3	8.0	7.8	8.4	8.6	8.5	8.4	8.1	7.8	7.5	7.5	7.5
Daily Min	7.9	8.5	8.1	7.9	7.6	7.6	7.7	8.4	8.2	8.0	7.7	7.4	7.0	7.0	7.1
Average	8.3	8.6	8.3	8.1	7.9	7.7	7.9	8.5	8.4	8.2	7.9	7.6	7.2	7.2	7.3

License Minimum Dissolved Oxygen: 7.0 mg/l

- Augmentation Event
- DO corrective action occurring. Water being released through spillway gate.
- No DO corrective action or flow augmentation occurring.

Isolation Mode: Minimum flow being released through powerhouse. All other flow released through gate.

Time	07/16/15	07/17/15	07/18/15	07/19/15	07/20/15	07/21/15	07/22/15	07/23/15	07/24/15	07/25/15	07/26/15	07/27/15	07/28/15	07/29/15	07/30/15	07/31/15
0	7.5	7.5	7.2	7.0	6.9	7.0	6.8	6.5	6.8	6.8	7.0	7.3	7.0	6.8	6.6	6.6
10000	7.5	7.4	7.3	7.1	7.0	7.0	6.7	6.4	6.8	6.7	7.0	7.2	7.0	6.8	6.7	6.5
20000	7.5	7.4	7.3	7.1	7.0	7.0	6.7	7.1	6.9	6.9	7.0	7.1	7.0	6.7	6.7	6.5
30000	7.5	7.5	7.3	7.0	7.0	7.0	6.8	6.9	6.8	7.0	7.0	7.2	7.0	6.7	6.7	6.6
40000	7.5	7.4	7.3	7.1	6.9	7.0	6.8	6.8	6.8	7.0	7.0	7.1	7.0	6.7	6.8	6.5
50000	7.5	7.4	7.3	7.1	6.9	6.9	6.9	6.8	6.8	7.0	7.0	7.1	7.0	6.8	6.7	6.6
60000	7.5	7.4	7.3	7.1	6.9	7.0	6.9	6.8	6.9	7.0	7.0	7.1	7.0	6.7	6.7	6.5
70000	7.5	7.4	7.3	7.2	6.9	7.0	7.0	6.9	6.8	6.9	7.0	7.0	7.0	6.7	6.7	6.5
80000	7.5	7.4	7.3	7.2	6.9	7.0	7.0	6.9	6.9	6.9	7.0	7.0	7.0	6.6	6.7	6.6
90000	7.5	7.3	7.2	7.2	7.0	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.8	6.8	6.7
100000	7.4	7.4	7.3	7.2	6.9	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.8	6.6	6.7
110000	7.4	7.3	7.3	7.2	6.9	7.1	6.9	6.8	6.9	7.0	7.0	7.1	6.9	6.7	7.2	6.7
120000	7.4	7.4	7.4	7.1	6.9	7.0	6.8	6.8	6.8	7.2	7.2	7.1	6.9	6.7	7.5	7.4
130000	7.4	7.3	7.1	7.0	6.9	7.0	6.7	6.7	6.5	7.1	7.1	7.1	6.7	6.7	7.5	7.6
140000	7.3	7.3	7.0	6.9	6.9	6.9	6.7	6.9	6.5	7.1	7.1	7.1	6.7	6.7	7.5	6.8
150000	7.4	7.3	7.0	7.0	6.9	6.9	6.8	6.7	6.3	7.0	7.0	7.1	6.7	6.6	7.5	6.9
160000	7.4	7.3	7.0	7.0	7.0	6.9	6.9	6.8	6.4	7.0	7.0	7.0	6.7	6.6	7.4	7.0
170000	7.4	7.3	7.0	7.0	7.1	7.0	6.8	6.8	6.5	7.0	7.1	7.1	6.6	6.7	7.4	7.0
180000	7.5	7.2	6.9	6.9	7.0	7.0	6.8	6.7	6.6	7.1	6.9	6.9	6.7	6.6	7.4	7.0
190000	7.5	7.3	6.9	6.9	7.1	7.0	7.2	6.8	6.6	6.8	7.0	6.9	6.6	6.6	7.1	6.8
200000	7.5	7.3	6.9	6.9	7.1	6.9	6.8	6.8	6.6	6.9	7.2	6.9	6.6	6.6	7.0	6.8
210000	7.5	7.2	7.0	7.0	7.0	6.9	6.4	6.8	6.6	6.8	7.3	7.0	6.6	6.5	7.0	6.7
220000	7.5	7.2	7.0	6.9	7.0	6.8	6.4	6.7	6.7	7.0	7.2	7.0	6.7	6.5	7.0	6.6
230000	7.5	7.3	7.0	7.0	7.0	6.8	6.5	6.7	6.7	7.0	7.4	7.0	6.8	6.5	6.6	6.5
Daily Max	7.5	7.5	7.4	7.2	7.1	7.1	7.2	7.1	7.0	7.2	7.4	7.3	7.0	6.8	7.5	7.6
Daily Min	7.3	7.2	6.9	6.9	6.9	6.8	6.4	6.4	6.3	6.7	6.9	6.9	6.6	6.5	6.6	6.5
Average	7.4	7.3	7.1	7.0	7.0	7.0	6.8	6.8	6.7	7.0	7.1	7.1	6.8	6.7	7.0	6.8

License Minimum Dissolved Oxygen: 7.0 mg/l

- Augmentation Event
- DO corrective action occurring. Water being released through spillway gate.
- No DO corrective action or flow augmentation occurring.

Isolation Mode: Minimum flow being released through powerhouse. All other flow released through gate.

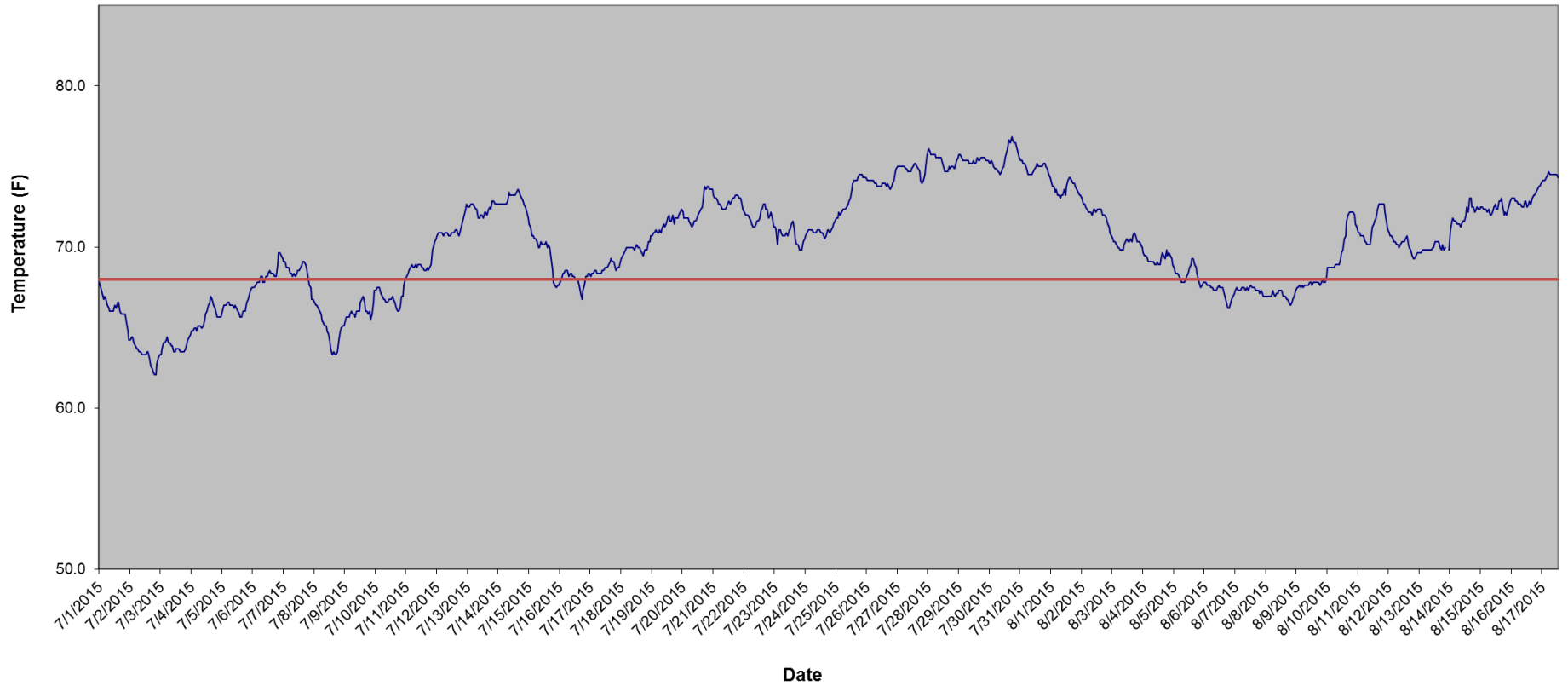
Time

HHMMSS	8/1/2015	8/2/2015	8/3/2015	8/4/2015	8/5/2015	8/6/2015	8/7/2015	8/8/2015	8/9/2015	8/10/2015	8/11/2015	8/12/2015	8/13/2015	8/14/2015	8/15/2015	8/16/2015	8/17/2015
0	6.4	6.4	6.0	7.2	7.4	7.4	7.4	7.4	7.5	7.6	7.2	7.4	7.3	7.5	7.0	6.8	6.8
10000	5.8	6.4	5.8	7.2	7.5	7.4	7.5	7.4	7.6	7.6	7.2	7.5	7.4	7.5	7.1	6.6	6.7
20000	6.0	6.3	5.8	7.1	7.4	7.5	7.4	7.4	7.5	7.6	7.2	7.5	7.3	7.5	7.2	6.7	6.7
30000	6.0	6.4	5.8	7.2	7.4	7.4	7.4	7.4	7.6	7.5	7.2	7.6	7.3	7.5	7.1	6.7	6.8
40000	6.3	6.4	5.9	7.2	7.3	7.4	7.3	7.4	7.5	7.5	7.2	7.6	7.2	7.5	7.2	6.6	6.7
50000	6.3	6.3	6.0	7.3	7.3	7.4	7.2	7.5	7.5	7.5	7.1	7.6	7.2	7.4	7.2	6.6	6.7
60000	6.3	6.2	5.8	7.4	7.3	7.4	7.2	7.5	7.6	7.5	7.1	7.5	7.2	7.4	7.1	6.7	6.6
70000	6.2	6.1	6.0	7.4	7.3	7.5	7.3	7.5	7.6	7.5	7.4	7.5	7.3	7.4	7.1	6.8	6.6
80000	6.3	6.3	6.1	7.5	7.4	7.5	7.3	7.6	7.6	7.6	7.4	7.5	7.3	7.3	7.2	6.7	6.8
90000	6.6	6.6	6.6	7.5	7.5	7.6	7.4	7.5	7.7	7.6	7.7	7.6	7.3	7.6	7.3	6.8	6.7
100000	6.7	6.5	7.0	6.1	7.5	7.7	7.4	7.5	7.7	7.7	7.7	7.6	7.4	7.7	7.4	6.7	6.8
110000	7.2	6.4	7.0	4.8	7.5	7.6	7.4	7.5	7.7	7.7	7.8	7.6	7.5	7.7	7.5	6.8	6.9
120000	7.4	7.7	6.9	4.5	7.5	7.6	7.6	7.5	7.6	7.7	7.8	7.5	7.5	7.6	8.3	7.0	7.0
130000	7.4	7.5	7.0	5.0	7.4	7.6	7.6	7.4	7.7	7.7	7.7	7.4	7.5	7.6	7.2	7.1	0.0
140000	7.4	7.4	6.9	6.2	7.4	7.5	7.5	7.4	7.7	7.6	7.7	7.4	7.5	7.4	7.3	7.0	0.0
150000	7.4	7.3	7.0	4.3	7.3	7.5	7.4	7.5	7.6	7.7	7.8	7.2	7.5	7.5	7.2	7.0	0.0
160000	7.4	7.3	7.1	3.8	7.3	7.5	7.4	7.5	7.5	7.7	7.8	7.2	7.3	7.6	7.2	6.9	0.0
170000	7.3	7.3	7.1	7.6	7.4	7.4	7.5	7.5	7.5	7.7	7.8	7.2	7.3	7.3	7.1	6.9	0.0
180000	7.2	7.3	6.8	7.6	7.3	7.5	7.5	7.4	7.4	7.6	7.7	7.1	7.5	7.3	7.1	6.9	0.0
190000	6.6	6.2	7.0	7.6	7.4	7.5	7.5	7.4	7.4	7.2	7.4	7.0	7.5	7.2	7.0	6.8	0.0
200000	6.4	6.0	7.0	7.5	7.5	7.4	7.5	7.5	7.5	7.3	7.4	7.1	7.5	6.9	7.0	6.8	0.0
210000	6.5	5.8	7.1	7.5	7.4	7.5	7.4	7.5	7.5	7.3	7.4	7.1		7.0	6.7	6.8	0.0
220000	6.4	5.8	7.2	7.4	7.4	7.3	7.4	7.4	7.5	7.2	7.2	7.3		6.9	6.6	6.8	0.0
230000	6.5	5.8	7.2	7.5	7.4	7.3	7.4	7.5	7.6	7.2	7.4	7.3	6.9	6.9	6.7	6.8	0.0
Daily Max	7.4	7.7	7.2	7.6	7.5	7.7	7.6	7.6	7.7	7.7	7.8	7.6	7.5	7.7	8.3	7.1	7.0
Daily Min	5.8	5.8	5.8	3.8	7.3	7.3	7.2	7.4	7.4	7.2	7.1	7.0	6.9	6.9	6.6	6.6	0.0
Average	6.7	6.6	6.6	6.6	7.4	7.5	7.4	7.5	7.6	7.5	7.5	7.4	7.3	7.4	7.2	6.8	3.7

Readings on 8/4 between 10:00 EST and 1600 EST Are not representative of actual conditions. Weed buildup around the monitor resulted in non-representative readings.

Escanaba Dam 4 Water Temperature - 2015 Monitoring Period

— Water Temperature (°F) — State Cold Water Standard (68°F)



Augmentation Event

DO corrective action occurring. Water being released through spillway gate.

Time HHMMSS	07/01/15	07/02/15	07/03/15	07/04/15	07/05/15	07/06/15	07/07/15	07/08/15	07/09/15	07/10/15	07/11/15	07/12/15	07/13/15	07/14/15	07/15/15
0	68	64	63	65	66	67	69	67	65	67	68	71	73	73	71
10000	67	64	64	65	66	67	69	66	66	67	68	71	73	73	71
20000	67	64	64	65	66	68	69	66	66	67	69	71	73	73	71
30000	67	64	64	65	66	68	69	66	66	67	69	71	73	73	71
40000	67	64	64	65	67	68	69	66	66	67	69	71	73	73	71
50000	67	64	64	65	67	68	68	66	66	67	69	71	73	73	71
60000	66	64	64	65	66	68	68	65	66	67	69	71	72	73	70
70000	66	64	64	65	66	68	68	65	66	67	69	71	72	73	70
80000	66	64	64	65	66	68	68	65	66	67	69	71	72	73	70
90000	66	63	64	65	66	68	68	65	66	67	69	71	72	73	70
100000	66	63	64	65	66	68	68	65	66	67	69	71	72	73	70
110000	66	63	64	66	66	68	69	65	66	67	69	71	72	73	70
120000	66	63	64	66	66	68	69	64	67	67	69	71	72	73	70
130000	66	64	64	66	66	69	69	64	67	67	69	71	72	73	70
140000	67	64	64	67	66	68	69	63	67	67	69	71	72	73	70
150000	67	63	64	67	66	68	69	64	67	67	69	71	72	74	70
160000	66	63	64	67	66	68	69	63	66	66	69	71	72	73	70
170000	66	62	64	66	66	68	69	63	66	66	69	71	73	73	69
180000	66	62	64	66	66	68	69	64	66	66	69	71	72	73	69
190000	66	62	64	66	67	69	68	64	66	66	69	71	73	73	68
200000	66	62	64	66	67	70	68	65	65	67	70	72	73	73	68
210000	65	63	64	66	67	70	67	65	66	67	70	72	73	73	67
220000	65	63	64	66	67	69	67	65	67	68	70	72	73	72	68
230000	64	63	65	66	67	69	67	65	67	68	71	73	73	72	68
Daily Max	68	64	65	67	67	70	69	67	67	68	71	73	73	74	71
Daily Min	64	62	63	65	66	67	67	63	65	66	68	71	72	72	67
Average	66	63	64	66	66	68	68	65	66	67	69	71	72	73	70

Augmentation Event
 DO corrective action occurring. Water being released through spillway gate.

Time HHMMSS	07/16/15	07/17/15	07/18/15	07/19/15	07/20/15	07/21/15	07/22/15	07/23/15	07/24/15	07/25/15	07/26/15	07/27/15	07/28/15	07/29/15	07/30/15	07/31/15
0	68	68	69	71	72	73	72	71	71	72	74	75	76	76	75	75
10000	68	68	69	71	72	73	72	71	71	72	74	75	76	76	75	75
20000	68	68	70	71	72	73	72	70	71	72	74	75	76	76	75	75
30000	68	69	70	71	72	73	72	71	71	72	74	75	76	75	75	75
40000	69	69	70	71	72	73	72	71	71	72	74	75	76	75	75	75
50000	69	68	70	71	72	73	72	71	71	72	74	75	76	75	75	75
60000	69	68	70	71	71	73	71	71	71	72	74	75	76	75	75	74
70000	68	68	70	71	71	72	71	71	71	72	74	75	76	75	75	74
80000	68	68	70	71	71	72	71	71	71	73	74	75	76	75	74	74
90000	68	69	70	71	72	72	71	71	71	73	74	75	76	75	75	74
100000	68	69	70	71	72	73	72	71	71	73	74	75	76	75	75	75
110000	68	69	70	71	72	73	72	71	71	73	74	75	75	75	75	75
120000	68	69	70	72	72	73	72	71	71	74	74	75	75	75	76	75
130000	68	69	70	72	72	73	72	71	71	74	74	75	75	75	76	75
140000	68	69	70	72	72	73	72	72	71	74	74	75	75	76	76	75
150000	68	69	70	72	73	73	73	71	71	74	74	75	75	75	77	75
160000	67	69	70	72	73	73	73	71	71	74	74	75	75	75	76	75
170000	67	69	69	71	74	73	72	70	71	74	74	75	75	76	77	75
180000	67	69	70	72	74	73	72	70	71	74	74	74	75	76	77	75
190000	68	69	70	72	74	73	72	70	71	74	74	74	75	76	76	75
200000	68	69	70	72	74	73	72	70	71	74	74	74	75	76	76	75
210000	68	69	70	72	74	73	72	70	71	74	74	74	75	75	76	75
220000	68	69	70	72	74	73	72	70	71	74	75	75	75	75	76	74
230000	68	69	71	72	74	72	71	71	72	74	75	76	76	75	76	74
Daily Max	69	69	71	72	74	73	73	72	72	74	75	76	76	76	77	75
Daily Min	67	68	69	71	71	72	71	70	71	72	74	74	75	75	74	74
Average	68	69	70	71	72	73	72	71	71	73	74	75	75	75	76	75

Augmentation Event
 DO corrective action occurring. Water being released through spillway gate.
 Missing data on 8/13 due to equipment power failure (lightning strike)

Time HHMMSS	8/1/2015	8/2/2015	8/3/2015	8/4/2015	8/5/2015	8/6/2015	8/7/2015	8/8/2015	8/9/2015	8/10/2015	8/11/2015	8/12/2015	8/13/2015	8/14/2015	8/15/2015	8/16/2015	8/17/2015
0	74	73	71	70	69	68	67	67	67	69	71	71	70	71	73	73	74
10000	74	73	70	69	68	68	67	67	67	69	71	71	70	72	73	73	74
20000	74	73	70	69	68	68	67	67	68	69	71	71	70	72	72	73	74
30000	73	73	70	69	68	68	67	67	67	69	71	71	70	72	72	73	74
40000	74	72	70	69	68	68	67	67	68	69	71	70	70	72	72	73	74
50000	73	72	70	69	68	67	67	67	67	69	70	70	70	71	72	73	75
60000	73	72	70	69	68	67	67	67	68	69	70	70	70	71	72	73	74
70000	73	72	70	69	68	67	67	67	68	69	70	70	70	71	72	73	74
80000	73	72	70	69	68	67	67	67	68	69	70	70	70	71	72	73	74
90000	73	72	70	69	68	67	67	67	68	69	70	70	70	71	72	73	74
100000	74	72	70	69	68	67	67	67	68	69	71	70	70	72	73	73	74
110000	73	72	71	69	68	68	67	67	68	70	71	70	70	72	73	73	74
120000	74	72	70	69	69	67	68	67	68	70	71	70	70	72	72	73	74
130000	74	72	70	69	69	67	67	67	68	71	72	71	70	73	72	73	32
140000	74	72	71	69	69	67	67	67	68	71	72	71	70	72	73	73	32
150000	74	72	70	70	69	67	67	67	68	72	72	70	70	73	73	73	32
160000	74	72	71	69	69	67	67	67	68	72	73	70	70	73	73	73	32
170000	74	72	71	69	69	67	67	67	68	72	73	70	70	73	73	73	32
180000	74	72	71	70	68	66	67	67	68	72	73	69	70	73	72	73	32
190000	74	72	70	69	68	66	67	66	68	72	73	69	70	72	72	73	32
200000	74	71	70	70	68	66	67	67	68	72	73	69	70	72	72	74	32
210000	73	71	70	69	67	67	67	67	68	72	72	69		73	72	74	32
220000	73	71	70	69	68	67	67	67	68	71	72	70		72	73	74	32
230000	73	71	70	69	68	67	67	67	68	71	71	70	70	72	73	74	32
Daily Max	74	73	71	70	69	68	68	67	68	72	73	71	70	73	73	74	75
Daily Min	73	71	70	69	67	66	67	66	67	69	70	69	70	71	72	73	32
Average	74	72	70	69	68	67	67	67	68	70	71	70	70	72	72	73	55

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