



Upper Peninsula Power Company

700 North Adams Street
P.O. Box 19001
Green Bay, WI 54307-9001
www.uppco.com

September 19, 2012

FERC Project No. 10855

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

Dear Secretary Bose:

Notice of a Deviation from Water Quality Standards

Per the Order Modifying and Approving Water Quality Monitoring Plan Under Article 408, dated April 17, 2003, and the Order Approving Modification to Approved Water Quality Monitoring Plan Under Article 408, dated March 3, 2005, Upper Peninsula Power Company (UPPCO) is conducting water quality monitoring at the following locations within the Dead River Hydroelectric Project:

- In the Dead River where County Road AAO crosses the Dead River (SE $\frac{1}{4}$ of NE $\frac{1}{4}$, section 22, T49N, R28W, Township of Champion).
- Downstream of the Hoist Powerhouse in the natural river channel (SE $\frac{1}{4}$, of the NE $\frac{1}{4}$ of Section 16, T48N, R26W, Township of Negaunee).

Per the water quality monitoring plan, water temperature is monitored on an hourly basis from May 1st through October 31st, while dissolved oxygen (D.O.) levels are monitored from June 1st through September 30th. The D.O. water quality standard at the monitoring locations is 7.0 mg/l. The water quality standard for temperature at this monitoring location is 68°F. Deviations from the dissolved oxygen standard have been observed between the monitoring period of August 28th and September 11th.

At the County Road AAO monitoring location, dissolved oxygen levels below the water quality standard were observed between 22:00 on September 4th and 01:00 on September 5th. The lowest dissolved oxygen reading observed was 6.9 mg/l. Warm water temperatures and low river flow are the likely cause of the low D.O. levels observed. At the time of the low DO readings, the water temperature of the Dead River at the monitoring location was above 70°F. As the Silver Lake Reservoir is still being refilled, UPPCO is only able to release minimum flow from the reservoir (10 cfs). Consequently, less cold water is available to be released from the

Ms. Kimberly Bose, Secretary

September 19, 2012

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reservoir to mitigate high water temperatures and low dissolved oxygen levels downstream of the facility.

Downstream of the Hoist Powerhouse, a deviation from the monthly maximum average temperature occurred during the month of August. The monthly average water temperature in the Dead River as measured at the monitoring location was 70°F. The likely cause of the low DO readings is warm water temperatures in the Dead River Storage Basin. Dissolved oxygen and temperature profiles conducted at the powerhouse intake in August have shown that water temperatures in the reservoir were at or above the downstream temperature standard at all depths except for the bottom 0.5 to 1.0 meters.

UPPCO provided notice of the deviations to the Michigan Department of Natural Resources (MDNR), Michigan Department of Environmental Quality (MDEQ), and the U.S. Fish and Wildlife Service (FWS) by e-mail on September 14th. A copy of the correspondence and monitoring data is attached. Should you have any questions or concerns, please do not hesitate to call Mr. Mark Metcalf at (920) 433-1833.

Sincerely,



Terry P. Jensky

Vice President – Generation Assets

Wisconsin Public Service Corporation

Enc: September 14, 2012 E-mail Notification with Water Quality Monitoring Data

cc:	Mr. Gil Snyder, WPSC - D2	Mr. Robert Meyers, UPPCO - UISC
	Mr. Shawn Puzen, IBS - D2	Mr. Bill Taft - MDEQ
	Ms. Joan Johaneck, WPSC - D2	Mr. Mitch Koetje - MDEQ
	Mr. Dave Giesler, IBS - D2	Mr. Burr Fisher - FWS
	Mr. John Myers, IBS - D2	Mr. Kyle Kruger - MDNR
	Mr. Keith Moyle, UPPCO - UISC	Mr. John Zygaj, FERC - CRO
	Mr. Virgil Schlorke, UPPCO- UISC	

Dead River Water Quality Monitoring Data

FERC Project No 10855

Documentation of Agency Consultation

Metcalf, Mark W

From: Metcalf, Mark W
Sent: Friday, September 14, 2012 9:40 AM
To: 'Kruger, Kyle'; 'Koetje, Mitch '; 'Taft, Bill '; 'Burr Fisher '
Cc: Meyers, Robert J; Schlorke, Virgil E; Puzen, Shawn C
Subject: Dead River Water Quality Monitoring - August 28 through September 11, 2012
Attachments: 20120914 DR WQM data.pdf

Good morning:

Pursuant to Article 408 of the Project License and the water quality monitoring plan for the Dead River Hydroelectric Project, UPPCO is monitoring dissolved oxygen and temperature in the Dead River downstream of the Silver Lake Storage Basin and downstream of the Hoist Powerhouse at the following locations:

- Where County Road AAO crosses the Dead River, SE ¼ of the NE ¼, Section 17, T48N, R 25W, in the Township of Champion;
- In the natural river channel in the SE ¼ of the NE ¼, Section 16, T48N, R26W, in the Township of Negaunee. The monitoring location is approximately 1,250 yards downstream of the hydroelectric plant.

The dissolved oxygen water quality standard at these locations is 7.0 mg/l. The License monthly average water temperature standard is 68°F during the months of June through August. Deviations from the dissolved oxygen standard and the monthly maximum average water temperature have been observed at the above monitoring locations. Please note that the water quality monitoring equipment used has an accuracy of +/- 0.1 mg/l, per the manufacturer. Therefore, readings below 6.9 mg/l are potential deviations from the water quality standard.

At the County Road AAO monitoring location, dissolved oxygen levels below the water quality standard were observed between 22:00 on September 4th and 01:00 on September 5th. The lowest dissolved oxygen reading observed was 6.9 mg/l. Warm water temperatures and low river flow are the likely cause of the low D.O. levels observed. At the time of the low DO readings, the water temperature of the Dead River at the monitoring location was above 70°F. As the Silver Lake Reservoir is still being refilled, UPPCO is only able to release minimum flow from the reservoir (10 CFS). Consequently, less cold water is available to be released from the reservoir to mitigate high water temperatures and low dissolved oxygen levels downstream of the facility.

Downstream of the Hoist Powerhouse, a deviation from the monthly maximum average temperature occurred during the month of August. The monthly average water temperature in the Dead River as measured at the monitoring location was 70°F. The likely cause of the low DO readings is warm water temperatures in the Dead River Storage Basin. Dissolved oxygen and temperature profiles conducted at the powerhouse intake in August has shown that water temperatures in the reservoir were at or above the downstream temperature standard at all depths except for the bottom 0.5 to 1.0 meters.

Attached for your review is the dissolved oxygen and temperature monitoring data from the County Road AAO for the month of August and beginning of September. Also included is temperature monitoring data for the Hoist Powerhouse monitoring location for the month of August along with dissolved oxygen and temperature profile data obtained near the Hoist Powerhouse intake. If you have any questions about the monitoring data, please feel free to contact me.

Mark

Mark Metcalf

Environmental Consultant - Air & Water | Integrys Business Support, LLC

920-433-1833 (Green Bay)

920-617-6046 (De Pere)

920-606-8432 *cell*

920-433-4916 *fax*

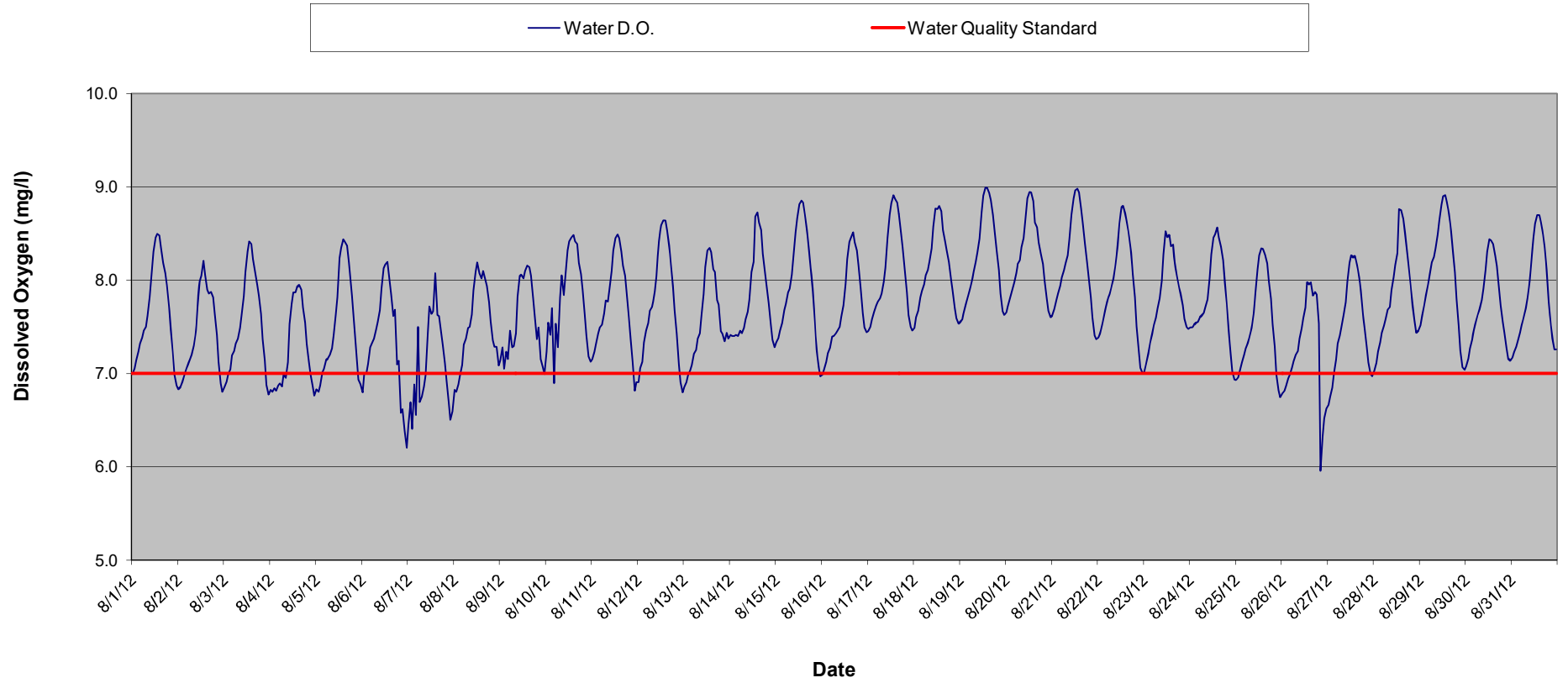
mwmetcalf@integrysgroup.com

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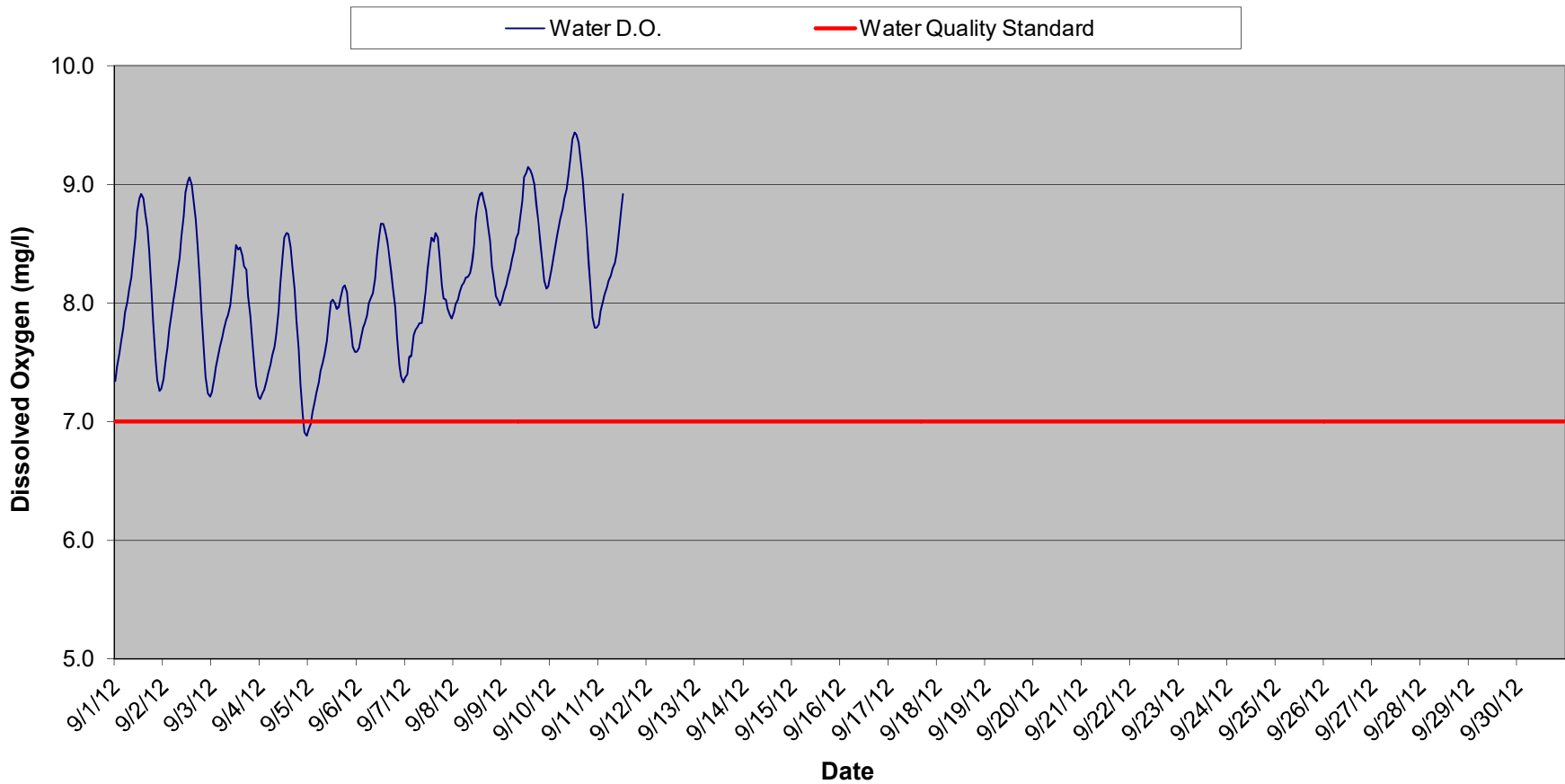
Providing support for Integrys Energy Group, Integrys Energy Services, Integrys Transportation Fuels, Michigan Gas Utilities, Minnesota Energy Resources, North Shore Gas, Peoples Gas, Upper Peninsula Power Company and Wisconsin Public Service.

Dead River Water Quality Monitoring Data
at the
AAO Bridge Below the Silver Lake Storage Basin

Dead River at CR AAO Bridge Dissolved Oxygen Summary - August 2012



Dead River at CR AAO Bridge Dissolved Oxygen Summary - September 2012



Dead River at County Road AAO Bridge - August 2012 Dissolved Oxygen Monitoring Data

Time HHMMSS	8/1/2012	8/2/2012	8/3/2012	8/4/2012	8/5/2012	8/6/2012	8/7/2012	8/8/2012	8/9/2012	8/10/2012	8/11/2012	8/12/2012	8/13/2012	8/14/2012	8/15/2012	8/16/2012	8/17/2012
0	7.0	6.8	6.9	6.8	6.8	6.8	6.4	6.8	7.1	7.2	7.2	6.9	6.9	7.4	7.3	7.0	7.5
10000	7.1	6.9	6.9	6.8	6.8	7.0	6.7	6.8	7.3	7.5	7.2	7.1	6.9	7.4	7.4	7.0	7.5
20000	7.1	6.9	7.0	6.8	6.9	7.0	6.4	6.9	7.1	7.4	7.3	7.1	7.0	7.4	7.5	7.1	7.6
30000	7.2	7.0	7.0	6.8	7.0	7.1	6.9	7.0	7.2	7.7	7.4	7.3	7.0	7.4	7.5	7.2	7.7
40000	7.3	7.1	7.2	6.9	7.1	7.3	6.6	7.1	7.2	6.9	7.5	7.5	7.1	7.4	7.7	7.3	7.7
50000	7.4	7.1	7.2	6.9	7.1	7.3	7.5	7.3	7.5	7.5	7.5	7.5	7.2	7.5	7.7	7.4	7.8
60000	7.5	7.2	7.3	6.9	7.2	7.4	6.7	7.4	7.3	7.3	7.6	7.7	7.3	7.4	7.9	7.4	7.8
70000	7.5	7.2	7.4	7.0	7.2	7.5	6.8	7.5	7.3	7.8	7.8	7.7	7.4	7.5	7.9	7.4	7.9
80000	7.6	7.3	7.5	7.0	7.3	7.6	6.9	7.5	7.4	8.1	7.8	7.8	7.4	7.6	8.1	7.5	8.0
90000	7.8	7.5	7.6	7.1	7.4	7.7	7.0	7.6	7.8	7.8	7.9	8.0	7.6	7.7	8.3	7.5	8.1
100000	8.1	7.7	7.8	7.5	7.6	7.9	7.4	7.9	8.0	8.1	8.1	8.2	7.9	7.8	8.5	7.6	8.5
110000	8.3	8.0	8.1	7.8	7.8	8.1	7.7	8.1	8.1	8.3	8.3	8.5	8.1	8.1	8.7	7.7	8.7
120000	8.5	8.0	8.3	7.9	8.2	8.2	7.6	8.2	8.0	8.4	8.4	8.6	8.3	8.2	8.8	8.0	8.8
130000	8.5	8.2	8.4	7.9	8.3	8.2	7.7	8.1	8.1	8.5	8.5	8.6	8.3	8.7	8.9	8.2	8.9
140000	8.5	8.1	8.4	7.9	8.4	8.0	8.1	8.0	8.2	8.5	8.4	8.6	8.3	8.7	8.8	8.4	8.9
150000	8.3	7.9	8.2	7.9	8.4	7.8	7.6	8.1	8.1	8.4	8.3	8.5	8.1	8.6	8.7	8.5	8.8
160000	8.2	7.9	8.1	7.9	8.4	7.6	7.6	8.0	8.0	8.4	8.2	8.4	8.1	8.5	8.5	8.5	8.7
170000	8.1	7.9	7.9	7.7	8.2	7.7	7.4	7.9	7.8	8.2	8.0	8.2	7.8	8.3	8.3	8.4	8.5
180000	7.9	7.8	7.8	7.5	8.0	7.1	7.3	7.8	7.6	8.1	7.9	7.9	7.7	8.1	8.1	8.3	8.4
190000	7.7	7.6	7.6	7.3	7.7	7.1	7.1	7.6	7.4	7.9	7.6	7.7	7.5	7.9	7.9	8.2	8.1
200000	7.5	7.4	7.4	7.1	7.5	6.6	6.9	7.4	7.5	7.6	7.4	7.4	7.4	7.8	7.6	7.9	7.9
210000	7.2	7.1	7.1	7.0	7.1	6.6	6.7	7.3	7.2	7.4	7.1	7.1	7.3	7.5	7.3	7.6	7.6
220000	7.0	6.9	6.9	6.9	6.9	6.4	6.5	7.3	7.1	7.2	6.8	6.9	7.4	7.4	7.1	7.5	7.5
230000	6.9	6.8	6.8	6.8	6.9	6.2	6.6	7.1	7.0	7.1	6.9	6.8	7.4	7.3	7.0	7.4	7.5
Daily Max	8.5	8.2	8.4	7.9	8.4	8.2	8.1	8.2	8.2	8.5	8.5	8.6	8.3	8.7	8.9	8.5	8.9
Daily Min	6.9	6.8	6.8	6.8	6.8	6.2	6.4	6.8	7.0	6.9	6.8	6.8	6.9	7.3	7.0	7.0	7.5
Average	7.7	7.4	7.5	7.3	7.5	7.3	7.1	7.5	7.6	7.8	7.7	7.8	7.6	7.8	8.0	7.7	8.1

License Minimum Dissolved Oxygen: 7.0 mg/l

Readings below the water quality standard

Dead River at County Road AAO Bridge - August 2012 Dissolved Oxygen Monitoring Data

Time	8/18/2012	8/19/2012	8/20/2012	8/21/2012	8/22/2012	8/23/2012	8/24/2012	8/25/2012	8/26/2012	8/27/2012	8/28/2012	8/29/2012	8/30/2012	8/31/2012
0	7.5	7.6	7.7	7.6	7.4	7.0	7.5	6.9	6.8	6.7	7.0	7.5	7.1	7.2
10000	7.6	7.6	7.7	7.7	7.4	7.1	7.5	7.0	6.8	6.8	7.1	7.6	7.2	7.2
20000	7.7	7.7	7.8	7.8	7.5	7.2	7.5	7.1	6.9	6.9	7.2	7.7	7.3	7.3
30000	7.8	7.8	7.9	7.9	7.6	7.3	7.5	7.1	6.9	7.0	7.3	7.8	7.4	7.4
40000	7.9	7.8	8.0	7.9	7.7	7.4	7.6	7.2	7.0	7.2	7.4	8.0	7.5	7.4
50000	8.0	7.9	8.1	8.0	7.8	7.5	7.6	7.3	7.1	7.3	7.5	8.1	7.6	7.5
60000	8.1	8.0	8.2	8.1	7.9	7.6	7.6	7.3	7.1	7.4	7.6	8.2	7.6	7.6
70000	8.1	8.1	8.2	8.2	8.0	7.7	7.7	7.4	7.2	7.5	7.7	8.3	7.7	7.7
80000	8.2	8.2	8.4	8.3	8.0	7.8	7.7	7.5	7.2	7.6	7.7	8.3	7.8	7.8
90000	8.3	8.3	8.5	8.4	8.2	8.0	7.8	7.7	7.4	7.8	7.9	8.5	7.9	8.0
100000	8.6	8.4	8.7	8.7	8.4	8.3	8.0	7.9	7.5	8.0	8.0	8.6	8.1	8.2
110000	8.8	8.7	8.9	8.9	8.6	8.5	8.3	8.1	7.6	8.2	8.2	8.8	8.3	8.5
120000	8.8	8.9	9.0	9.0	8.8	8.5	8.5	8.3	7.7	8.3	8.3	8.9	8.4	8.6
130000	8.8	9.0	8.9	9.0	8.8	8.5	8.5	8.3	8.0	8.2	8.8	8.9	8.4	8.7
140000	8.7	9.0	8.8	8.9	8.7	8.4	8.6	8.3	8.0	8.3	8.8	8.8	8.4	8.7
150000	8.5	8.9	8.6	8.8	8.6	8.4	8.5	8.3	8.0	8.2	8.7	8.7	8.3	8.6
160000	8.4	8.9	8.6	8.6	8.5	8.2	8.4	8.2	7.8	8.0	8.5	8.5	8.2	8.5
170000	8.3	8.7	8.4	8.4	8.3	8.0	8.2	8.0	7.9	7.9	8.3	8.3	7.9	8.3
180000	8.2	8.5	8.3	8.2	8.1	7.9	8.0	7.8	7.8	7.6	8.2	8.1	7.7	8.1
190000	8.0	8.3	8.2	8.0	7.8	7.9	7.7	7.5	7.5	7.5	7.9	7.8	7.6	7.8
200000	7.9	8.1	8.0	7.8	7.5	7.7	7.5	7.3	6.0	7.3	7.7	7.5	7.4	7.6
210000	7.7	7.9	7.8	7.6	7.3	7.6	7.2	7.0	6.3	7.1	7.6	7.3	7.3	7.4
220000	7.6	7.7	7.7	7.4	7.1	7.5	7.0	6.8	6.5	7.0	7.4	7.1	7.2	7.3
230000	7.5	7.6	7.6	7.4	7.0	7.5	6.9	6.7	6.6	7.0	7.5	7.0	7.1	7.3
Daily Max	8.8	9.0	9.0	9.0	8.8	8.5	8.6	8.3	8.0	8.3	8.8	8.9	8.4	8.7
Daily Min	7.5	7.6	7.6	7.4	7.0	7.0	6.9	6.7	6.0	6.7	7.0	7.0	7.1	7.2
Average	8.1	8.2	8.2	8.2	8.0	7.8	7.8	7.5	7.2	7.5	7.8	8.1	7.7	7.9

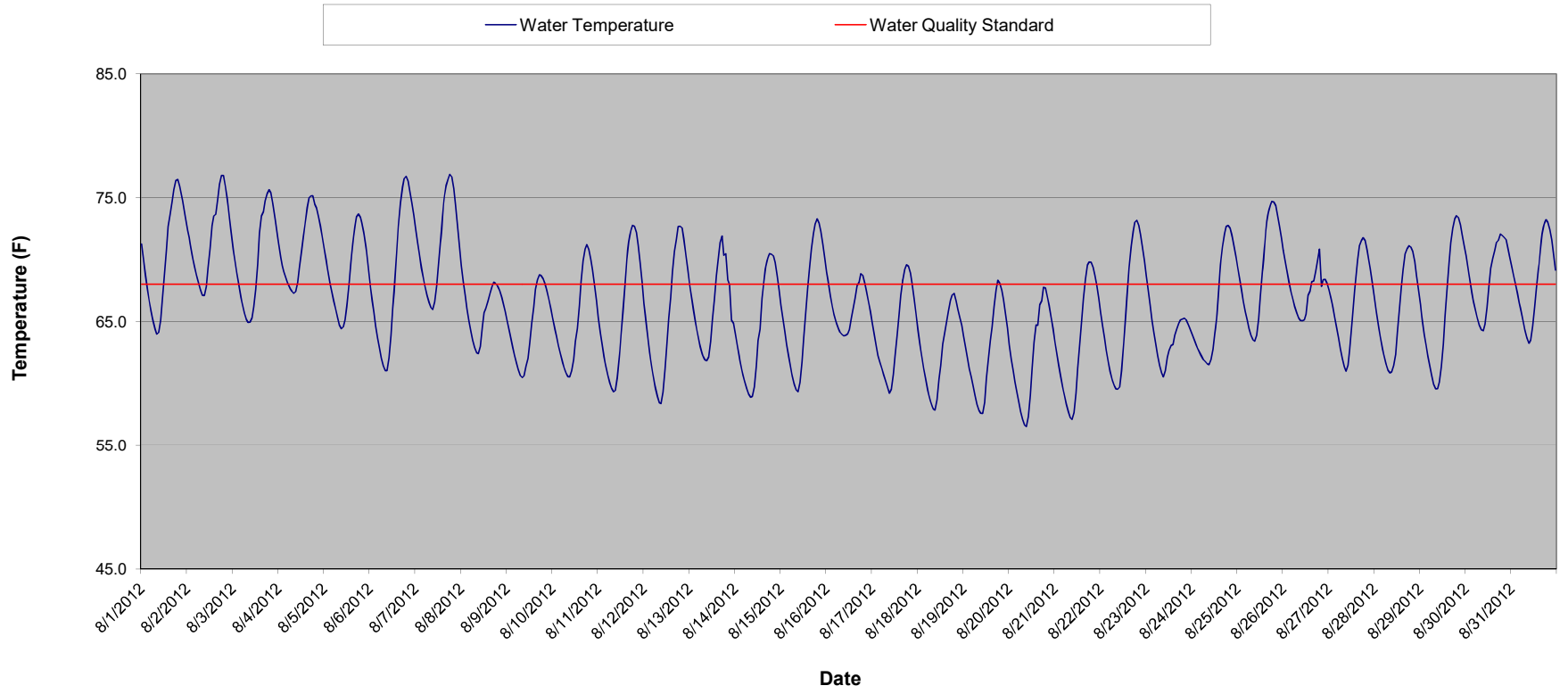
Readings below the water quality standard

Dead River at County Road AAO Bridge - September 2012 Dissolved Oxygen Data

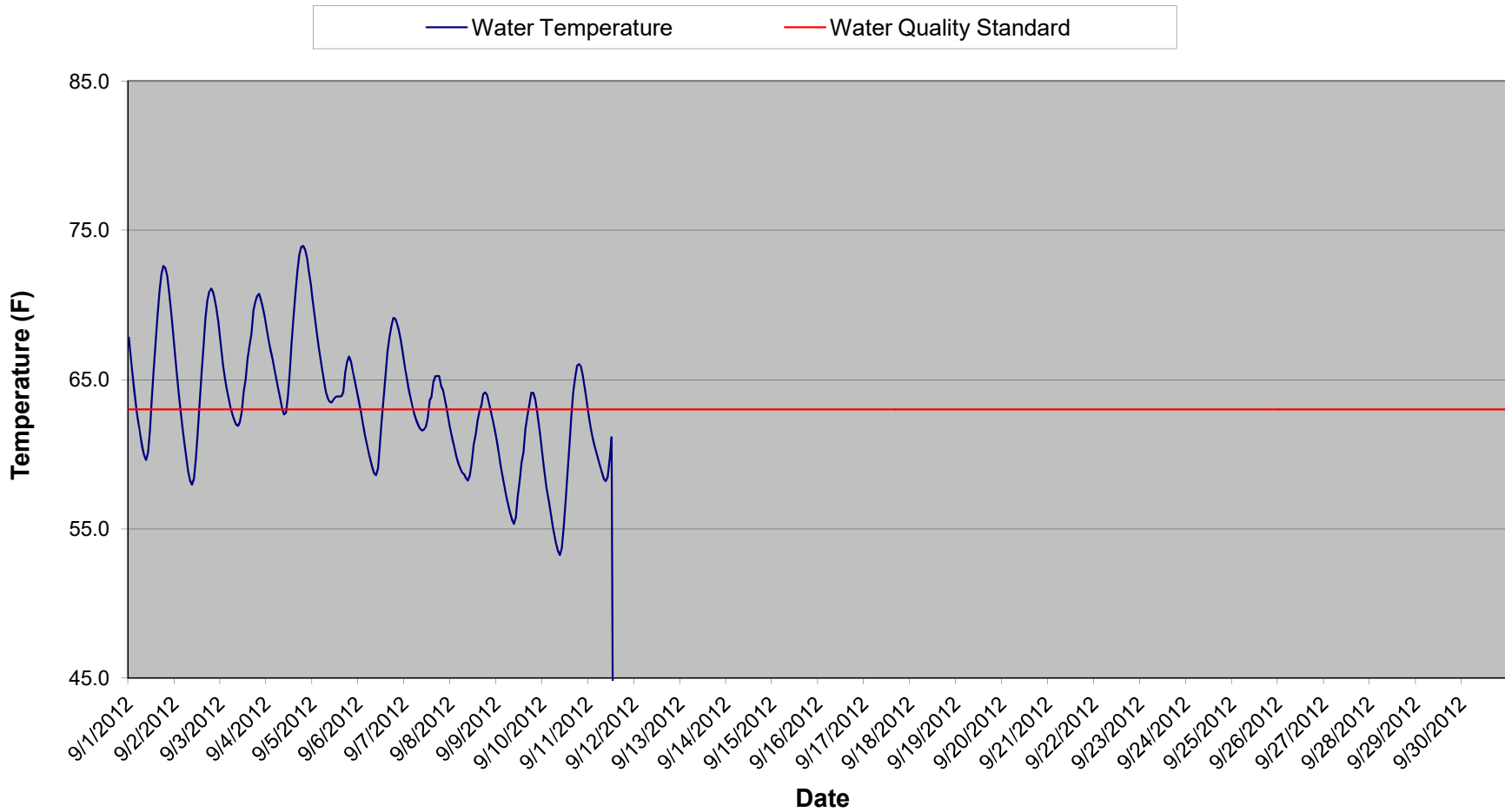
Time HHMMSS	9/1/2012	9/2/2012	9/3/2012	9/4/2012	9/5/2012	9/6/2012	9/7/2012	9/8/2012	9/9/2012	9/10/2012	9/11/2012	9/12/2012	9/13/2012	9/14/2012	9/15/2012	9/16/2012
0	7.3	7.4	7.3	7.2	6.9	7.6	7.4	7.9	8.0	8.2	7.8	0.0	0.0	0.0	0.0	0.0
10000	7.5	7.5	7.4	7.2	7.0	7.6	7.4	8.0	8.1	8.3	7.9	0.0	0.0	0.0	0.0	0.0
20000	7.6	7.6	7.5	7.3	7.1	7.7	7.5	8.0	8.2	8.4	8.0	0.0	0.0	0.0	0.0	0.0
30000	7.7	7.8	7.6	7.3	7.2	7.8	7.6	8.1	8.2	8.5	8.1	0.0	0.0	0.0	0.0	0.0
40000	7.8	7.9	7.6	7.4	7.3	7.8	7.7	8.2	8.3	8.6	8.1	0.0	0.0	0.0	0.0	0.0
50000	7.9	8.0	7.7	7.5	7.3	7.9	7.8	8.2	8.4	8.7	8.2	0.0	0.0	0.0	0.0	0.0
60000	8.0	8.1	7.8	7.6	7.4	8.0	7.8	8.2	8.5	8.8	8.2	0.0	0.0	0.0	0.0	0.0
70000	8.1	8.3	7.9	7.6	7.5	8.1	7.8	8.2	8.5	8.9	8.3	0.0	0.0	0.0	0.0	0.0
80000	8.2	8.4	7.9	7.7	7.6	8.1	7.8	8.3	8.6	9.0	8.3	0.0	0.0	0.0	0.0	0.0
90000	8.4	8.6	8.0	7.9	7.7	8.2	7.9	8.3	8.7	9.1	8.4	0.0	0.0	0.0	0.0	0.0
100000	8.6	8.7	8.1	8.2	7.8	8.4	8.1	8.5	8.9	9.2	8.6	0.0	0.0	0.0	0.0	0.0
110000	8.8	8.9	8.3	8.4	8.0	8.6	8.3	8.7	9.1	9.4	8.8	0.0	0.0	0.0	0.0	0.0
120000	8.9	9.0	8.5	8.6	8.0	8.7	8.4	8.9	9.1	9.4	8.9	0.0	0.0	0.0	0.0	0.0
130000	8.9	9.1	8.5	8.6	8.0	8.7	8.6	8.9	9.2	9.4	0.0	0.0	0.0	0.0	0.0	0.0
140000	8.9	9.0	8.5	8.6	8.0	8.6	8.5	8.9	9.1	9.4	0.0	0.0	0.0	0.0	0.0	0.0
150000	8.8	8.9	8.4	8.5	8.0	8.5	8.6	8.9	9.1	9.2	0.0	0.0	0.0	0.0	0.0	0.0
160000	8.6	8.7	8.3	8.3	8.1	8.4	8.6	8.8	9.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0
170000	8.4	8.5	8.3	8.1	8.1	8.3	8.4	8.7	8.8	8.8	0.0	0.0	0.0	0.0	0.0	0.0
180000	8.1	8.2	8.1	7.9	8.2	8.1	8.2	8.5	8.7	8.6	0.0	0.0	0.0	0.0	0.0	0.0
190000	7.8	7.9	7.9	7.6	8.1	8.0	8.0	8.3	8.5	8.4	0.0	0.0	0.0	0.0	0.0	0.0
200000	7.5	7.6	7.7	7.3	7.9	7.7	8.0	8.2	8.3	8.1	0.0	0.0	0.0	0.0	0.0	0.0
210000	7.4	7.4	7.5	7.1	7.8	7.5	8.0	8.1	8.2	7.9	0.0	0.0	0.0	0.0	0.0	0.0
220000	7.3	7.2	7.3	6.9	7.6	7.4	7.9	8.0	8.1	7.8	0.0	0.0	0.0	0.0	0.0	0.0
230000	7.3	7.2	7.2	6.9	7.6	7.3	7.9	8.0	8.1	7.8	0.0	0.0	0.0	0.0	0.0	0.0
Daily Max	8.9	9.1	8.5	8.6	8.2	8.7	8.6	8.9	9.2	9.4	8.9	0.0	0.0	0.0	0.0	0.0
Daily Min	7.3	7.2	7.2	6.9	6.9	7.3	7.4	7.9	8.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0
Average	8.1	8.2	7.9	7.7	7.7	8.0	8.0	8.4	8.6	8.7	4.5	0.0	0.0	0.0	0.0	0.0

License Minimum Dissolved Oxygen: 7.0 mg/l

Dead River at CR AAO Bridge Temperature - August 2012



Dead River at CR AAO Bridge Temperature - September 2012



Dead River at County Road AAO Bridge - August 2012 Temperature Monitoring Data

Time	8/1/2012	8/2/2012	8/3/2012	8/4/2012	8/5/2012	8/6/2012	8/7/2012	8/8/2012	8/9/2012	8/10/2012	8/11/2012	8/12/2012	8/13/2012	8/14/2012	8/15/2012	8/16/2012
HHMMSS																
0	71.3	72.6	71.1	71.3	70.8	68.3	72.5	69.6	65.1	65.3	65.3	66.5	68.0	64.1	66.3	69.0
10000	70.0	71.8	70.0	70.4	70.0	66.9	71.4	68.3	64.4	64.5	64.1	65.0	66.9	63.1	65.2	68.0
20000	68.8	70.9	69.0	69.5	69.0	65.8	70.4	67.1	63.7	63.8	63.1	63.7	66.0	62.2	64.2	67.0
30000	67.7	70.0	68.1	68.9	68.1	64.6	69.3	66.0	62.9	63.1	62.2	62.5	65.0	61.4	63.1	66.2
40000	66.7	69.3	67.2	68.4	67.3	63.7	68.6	65.0	62.3	62.4	61.4	61.4	64.1	60.7	62.2	65.5
50000	65.8	68.6	66.4	68.0	66.7	62.8	67.8	64.2	61.6	61.8	60.6	60.4	63.4	60.1	61.3	64.9
60000	65.0	68.1	65.7	67.7	66.0	62.0	67.1	63.5	61.1	61.3	60.1	59.6	62.7	59.6	60.6	64.5
70000	64.4	67.5	65.2	67.4	65.3	61.4	66.5	62.9	60.6	60.8	59.6	58.9	62.2	59.1	59.9	64.1
80000	64.0	67.1	64.9	67.3	64.7	61.0	66.1	62.5	60.5	60.5	59.3	58.4	61.9	58.9	59.5	64.0
90000	64.1	67.1	64.9	67.4	64.4	61.0	66.0	62.4	60.6	60.5	59.4	58.4	61.8	58.9	59.3	63.8
100000	65.1	67.8	65.3	68.1	64.6	62.1	66.6	63.0	61.4	61.0	60.5	59.3	62.1	59.7	60.1	63.9
110000	66.8	69.4	66.2	69.4	65.1	63.9	67.9	64.6	62.0	61.9	62.2	61.1	63.4	61.4	61.7	64.0
120000	68.8	70.9	67.6	70.6	66.5	66.1	69.5	65.7	63.2	63.4	64.0	63.0	65.1	63.5	63.7	64.3
130000	70.7	72.7	69.7	71.9	68.0	68.3	71.4	66.1	64.9	64.4	65.8	65.2	66.8	64.4	65.7	65.3
140000	72.7	73.5	72.1	72.8	69.7	70.6	73.4	66.7	66.1	66.3	68.0	67.0	68.7	66.9	67.7	66.1
150000	73.6	73.7	73.5	74.2	71.3	72.7	74.8	67.2	67.6	68.2	70.0	69.0	69.9	68.2	69.2	66.9
160000	74.7	74.9	73.9	75.0	72.6	74.6	76.0	67.7	68.4	69.9	71.5	70.7	71.4	69.4	70.9	67.9
170000	75.6	76.1	74.8	75.1	73.5	75.8	76.5	68.2	68.8	70.8	72.3	71.7	71.9	70.1	72.1	68.2
180000	76.4	76.8	75.3	75.1	73.7	76.5	76.9	68.1	68.7	71.2	72.8	72.7	70.3	70.5	72.9	68.9
190000	76.5	76.8	75.7	74.5	73.4	76.7	76.7	67.9	68.5	70.8	72.7	72.7	70.5	70.4	73.3	68.7
200000	76.0	76.0	75.4	74.2	72.9	76.3	75.7	67.6	68.0	70.0	72.2	72.6	68.4	70.3	72.9	68.1
210000	75.2	75.0	74.5	73.5	72.0	75.5	74.4	67.1	67.5	69.2	71.2	71.7	68.0	69.8	72.3	67.4
220000	74.3	73.6	73.5	72.7	70.8	74.6	72.7	66.5	66.8	67.9	69.7	70.4	65.1	68.7	71.2	66.6
230000	73.4	72.2	72.4	71.8	69.6	73.6	71.0	65.8	66.1	66.7	68.1	69.2	64.9	67.5	70.1	65.8
Daily Max	76.5	76.8	75.7	75.1	73.7	76.7	76.9	69.6	68.8	71.2	72.8	72.7	71.9	70.5	73.3	69.0
Daily Min	64.0	67.1	64.9	67.3	64.4	61.0	66.0	62.4	60.5	60.5	59.3	58.4	61.8	58.9	59.3	63.8
Average	70.3	71.8	70.1	71.1	69.0	68.5	71.2	66.0	64.6	65.3	65.7	65.5	66.2	64.5	66.1	66.2

Monthly average temp (F): 66.6
 License Maximum Monthly Average: 68°F

Dead River at County Road AAO Bridge - August 2012 Temperature Monitoring Data

Time	8/17/2012	8/18/2012	8/19/2012	8/20/2012	8/21/2012	8/22/2012	8/23/2012	8/24/2012	8/25/2012	8/26/2012	8/27/2012	8/28/2012	8/29/2012	8/30/2012	8/31/2012
0	64.9	64.3	63.8	63.1	63.3	65.8	68.7	64.0	69.4	70.8	67.6	66.8	66.4	70.3	69.4
10000	64.0	63.2	62.9	62.0	62.3	64.7	67.5	63.6	68.5	69.9	66.9	65.7	65.1	69.4	68.7
20000	63.0	62.2	62.0	61.0	61.4	63.7	66.3	63.2	67.6	69.0	66.2	64.6	64.0	68.3	68.0
30000	62.3	61.2	61.2	60.1	60.6	62.6	65.1	62.8	66.6	68.1	65.4	63.7	63.1	67.3	67.3
40000	61.7	60.4	60.5	59.3	59.7	61.7	64.1	62.5	65.8	67.4	64.5	62.9	62.2	66.5	66.5
50000	61.2	59.5	59.7	58.4	59.0	60.9	63.1	62.2	65.1	66.8	63.6	62.2	61.4	65.9	65.8
60000	60.7	58.9	59.0	57.7	58.3	60.3	62.2	61.9	64.4	66.2	62.8	61.5	60.5	65.2	65.0
70000	60.2	58.3	58.3	57.1	57.7	59.9	61.4	61.8	63.9	65.7	62.0	61.1	59.9	64.7	64.3
80000	59.7	57.9	57.8	56.6	57.2	59.5	60.8	61.6	63.5	65.3	61.3	60.8	59.6	64.3	63.6
90000	59.2	57.8	57.6	56.5	57.1	59.5	60.5	61.5	63.4	65.1	61.0	60.9	59.6	64.3	63.2
100000	59.5	58.7	57.6	57.3	57.6	59.7	61.0	61.9	63.9	65.1	61.5	61.4	60.1	64.8	63.5
110000	60.7	60.4	58.5	59.1	59.2	61.1	62.1	62.8	65.2	65.1	62.9	62.3	61.4	66.1	64.6
120000	62.2	61.4	60.4	61.1	61.3	63.0	62.7	64.0	67.1	65.6	64.8	64.1	63.2	67.9	66.2
130000	63.8	63.2	62.0	63.3	63.2	65.3	63.1	65.3	69.0	67.1	66.6	66.0	65.4	69.3	67.7
140000	65.6	64.1	63.5	64.7	65.1	67.4	63.2	67.6	70.9	67.5	68.3	67.8	67.6	70.1	69.2
150000	67.1	64.9	64.5	64.7	66.8	69.4	63.9	69.6	72.5	68.2	69.9	69.2	69.7	70.7	70.8
160000	68.3	65.8	66.2	66.4	68.4	71.0	64.4	71.0	73.7	68.3	71.1	70.5	71.3	71.4	72.1
170000	69.2	66.7	67.6	66.7	69.5	72.2	64.9	72.1	74.3	69.1	71.5	70.9	72.5	71.6	72.9
180000	69.6	67.1	68.3	67.7	69.8	73.0	65.1	72.7	74.7	69.9	71.8	71.1	73.3	72.1	73.2
190000	69.5	67.3	68.1	67.7	69.8	73.2	65.2	72.8	74.7	70.8	71.5	71.0	73.5	72.0	73.0
200000	68.9	66.7	67.5	66.9	69.4	72.8	65.3	72.5	74.4	67.8	70.8	70.6	73.4	71.8	72.4
210000	68.0	66.0	66.8	66.3	68.8	72.0	65.1	72.0	73.6	68.4	69.9	69.8	72.8	71.6	71.6
220000	66.8	65.3	65.6	65.3	67.9	71.0	64.8	71.2	72.7	68.4	68.9	68.7	72.0	71.0	70.4
230000	65.6	64.7	64.5	64.4	66.8	69.9	64.4	70.3	71.7	68.1	67.9	67.6	71.1	70.2	69.2
Daily Max	69.6	67.3	68.3	67.7	69.8	73.2	68.7	72.8	74.7	70.8	71.8	71.1	73.5	72.1	73.2
Daily Min	59.2	57.8	57.6	56.5	57.1	59.5	60.5	61.5	63.4	65.1	61.0	60.8	59.6	64.3	63.2
Average	64.2	62.7	62.7	62.2	63.3	65.8	64.0	66.3	69.0	67.6	66.6	65.9	66.2	68.6	68.3

Dead River at County Road AAO Bridge - September 2012 Temperature Monitoring Data

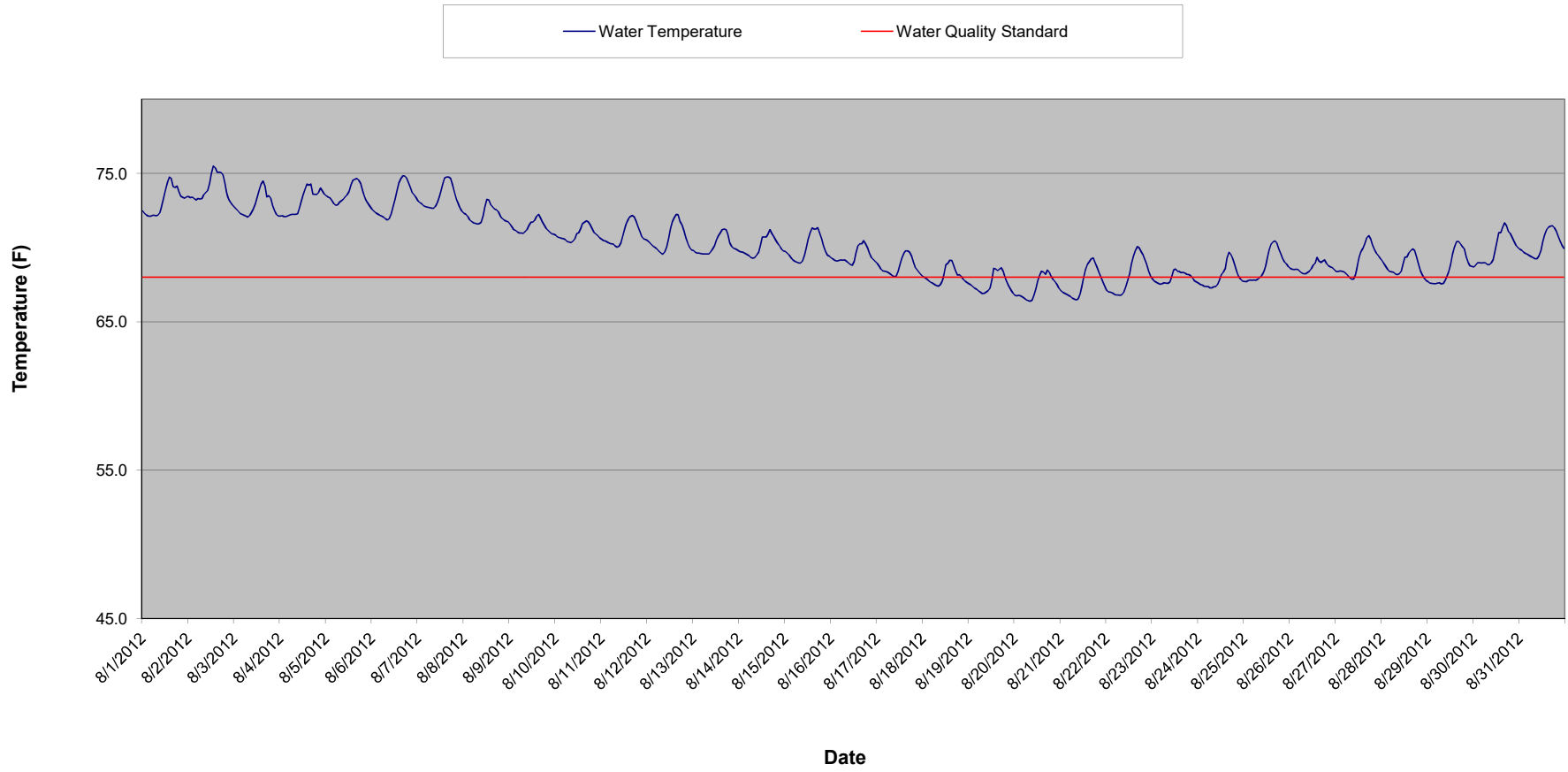
Time	9/1/2012	9/2/2012	9/3/2012	9/4/2012	9/5/2012	9/6/2012	9/7/2012	9/8/2012	9/9/2012	9/10/2012	9/11/2012	9/12/2012	9/13/2012	9/14/2012	9/15/2012	9/16/2012
0	67.8	66.9	67.3	68.3	70.3	63.6	65.9	61.6	60.9	59.9	62.7	32.0	32.0	32.0	32.0	32.0
10000	66.5	65.5	66.3	67.6	69.3	62.9	65.2	61.0	60.1	58.8	61.9	32.0	32.0	32.0	32.0	32.0
20000	65.2	64.1	65.3	67.0	68.3	62.2	64.3	60.4	59.3	57.7	61.2	32.0	32.0	32.0	32.0	32.0
30000	64.1	62.9	64.5	66.4	67.3	61.5	63.8	59.8	58.6	56.9	60.6	32.0	32.0	32.0	32.0	32.0
40000	63.1	61.8	63.8	65.7	66.4	60.9	63.2	59.4	57.9	56.2	60.1	32.0	32.0	32.0	32.0	32.0
50000	62.1	60.7	63.2	65.1	65.6	60.2	62.7	59.1	57.2	55.4	59.6	32.0	32.0	32.0	32.0	32.0
60000	61.3	59.7	62.7	64.4	64.8	59.6	62.3	58.8	56.6	54.6	59.2	32.0	32.0	32.0	32.0	32.0
70000	60.5	58.9	62.3	63.8	64.1	59.1	62.0	58.6	56.1	54.1	58.7	32.0	32.0	32.0	32.0	32.0
80000	59.9	58.2	62.0	63.1	63.7	58.7	61.7	58.4	55.6	53.5	58.3	32.0	32.0	32.0	32.0	32.0
90000	59.6	58.0	61.9	62.7	63.5	58.6	61.6	58.2	55.3	53.3	58.2	32.0	32.0	32.0	32.0	32.0
100000	60.1	58.4	62.2	62.8	63.5	59.0	61.6	58.6	55.8	53.7	58.5	32.0	32.0	32.0	32.0	32.0
110000	61.6	59.7	62.8	63.9	63.7	60.5	61.8	59.4	57.1	55.2	59.6	32.0	32.0	32.0	32.0	32.0
120000	63.6	61.6	64.2	65.6	63.8	62.2	62.4	60.6	58.2	56.9	61.1	32.0	32.0	32.0	32.0	32.0
130000	65.6	63.6	65.0	67.4	63.9	63.7	63.6	61.3	59.4	58.9	32.0	32.0	32.0	32.0	32.0	32.0
140000	67.4	65.6	66.4	69.2	63.9	65.3	63.8	62.2	60.1	60.7	32.0	32.0	32.0	32.0	32.0	32.0
150000	69.3	67.4	67.3	70.8	63.9	66.8	64.8	62.9	61.7	62.5	32.0	32.0	32.0	32.0	32.0	32.0
160000	70.9	69.0	68.1	72.2	64.2	67.8	65.2	63.3	62.5	64.1	32.0	32.0	32.0	32.0	32.0	32.0
170000	72.1	70.3	69.6	73.4	65.5	68.6	65.2	64.0	63.3	65.1	32.0	32.0	32.0	32.0	32.0	32.0
180000	72.6	70.9	70.2	73.9	66.2	69.1	65.2	64.1	64.1	65.9	32.0	32.0	32.0	32.0	32.0	32.0
190000	72.5	71.1	70.6	73.9	66.5	69.1	64.6	64.0	64.1	66.0	32.0	32.0	32.0	32.0	32.0	32.0
200000	71.9	70.8	70.8	73.7	66.2	68.8	64.3	63.4	63.7	65.9	32.0	32.0	32.0	32.0	32.0	32.0
210000	71.0	70.3	70.3	73.1	65.5	68.3	63.6	62.8	63.0	65.3	32.0	32.0	32.0	32.0	32.0	32.0
220000	69.7	69.5	69.8	72.3	64.9	67.6	63.0	62.3	62.1	64.3	32.0	32.0	32.0	32.0	32.0	32.0
230000	68.3	68.4	69.2	71.4	64.2	66.8	62.3	61.7	60.9	63.5	32.0	32.0	32.0	32.0	32.0	32.0
Daily Max	72.6	71.1	70.8	73.9	70.3	69.1	65.9	64.1	64.1	66.0	62.7	32.0	32.0	32.0	32.0	32.0
Daily Min	59.6	58.0	61.9	62.7	63.5	58.6	61.6	58.2	55.3	53.3	32.0	32.0	32.0	32.0	32.0	32.0
Average	66.1	64.7	66.1	68.2	65.4	63.8	63.5	61.1	59.7	59.5	47.2	32.0	32.0	32.0	32.0	32.0

Monthly average temp (F): 43.1
 License Maximum Monthly Average: 63°F

Dead River Water Quality Monitoring Data

Downstream of the Hoist Powerhouse

Hoist Powerhouse Temperature Summary - August 2012



Dead River Below Hoist Powerhouse - August 2012 Temperature Monitoring Data

Time HHMMSS	8/1/2012	8/2/2012	8/3/2012	8/4/2012	8/5/2012	8/6/2012	8/7/2012	8/8/2012	8/9/2012	8/10/2012	8/11/2012	8/12/2012	8/13/2012	8/14/2012	8/15/2012	8/16/2012
0	72.5	73.4	72.7	72.1	73.5	72.6	73.1	72.3	71.6	70.8	70.6	70.5	69.8	69.7	69.7	69.3
10000	72.3	73.4	72.6	72.1	73.4	72.4	73.0	72.2	71.4	70.7	70.5	70.4	69.7	69.7	69.6	69.2
20000	72.2	73.4	72.5	72.1	73.3	72.3	73.0	72.1	71.2	70.7	70.4	70.2	69.6	69.7	69.5	69.1
30000	72.1	73.3	72.3	72.1	73.2	72.3	72.8	71.9	71.2	70.6	70.4	70.1	69.6	69.6	69.3	69.1
40000	72.1	73.2	72.2	72.1	73.0	72.2	72.8	71.8	71.1	70.6	70.3	70.0	69.6	69.5	69.2	69.1
50000	72.2	73.3	72.2	72.2	72.9	72.1	72.7	71.7	71.0	70.5	70.3	69.9	69.6	69.5	69.1	69.2
60000	72.2	73.3	72.1	72.2	72.9	72.1	72.7	71.6	71.0	70.4	70.2	69.7	69.6	69.4	69.0	69.2
70000	72.1	73.3	72.1	72.2	73.1	71.9	72.7	71.6	71.0	70.4	70.1	69.6	69.6	69.3	69.0	69.2
80000	72.2	73.6	72.2	72.2	73.2	71.9	72.6	71.6	71.1	70.3	70.0	69.5	69.6	69.3	69.0	69.1
90000	72.4	73.7	72.4	72.3	73.3	72.0	72.8	71.7	71.2	70.4	70.1	69.7	69.7	69.5	69.1	69.0
100000	72.8	73.9	72.6	72.6	73.4	72.3	73.0	72.1	71.5	70.6	70.3	70.1	69.9	69.7	69.5	68.9
110000	73.3	74.3	73.0	73.1	73.6	72.8	73.4	72.7	71.7	71.0	70.8	70.6	70.1	70.1	70.0	68.8
120000	73.9	75.0	73.5	73.6	73.8	73.3	73.8	73.3	71.7	71.0	71.2	71.3	70.5	70.7	70.6	69.1
130000	74.4	75.5	73.9	74.0	74.2	73.8	74.3	73.2	71.8	71.3	71.7	71.7	70.8	70.7	71.0	69.6
140000	74.8	75.4	74.3	74.3	74.6	74.4	74.7	72.9	72.1	71.6	71.9	72.0	71.0	70.7	71.3	70.1
150000	74.7	75.1	74.5	74.2	74.6	74.6	74.8	72.8	72.2	71.7	72.1	72.2	71.2	70.9	71.3	70.3
160000	74.1	75.1	74.1	74.3	74.7	74.8	74.8	72.6	72.0	71.8	72.2	72.2	71.3	71.2	71.3	70.3
170000	74.0	75.1	73.4	73.6	74.6	74.8	74.7	72.6	71.7	71.7	72.1	71.8	71.2	71.0	71.3	70.5
180000	74.2	74.9	73.5	73.6	74.3	74.7	74.3	72.4	71.5	71.6	71.8	71.5	70.9	70.7	71.0	70.3
190000	73.8	74.3	73.3	73.6	73.9	74.4	73.7	72.1	71.3	71.3	71.4	71.1	70.3	70.5	70.6	70.0
200000	73.5	73.7	72.8	73.7	73.4	74.0	73.3	72.0	71.2	71.0	71.1	70.6	70.1	70.3	70.1	69.6
210000	73.4	73.3	72.5	74.0	73.1	73.7	73.0	71.9	71.0	70.9	70.7	70.3	70.0	70.1	69.8	69.3
220000	73.3	73.0	72.2	73.8	73.0	73.6	72.6	71.8	70.9	70.8	70.6	70.0	69.9	69.9	69.5	69.2
230000	73.4	72.9	72.1	73.6	72.8	73.4	72.4	71.7	70.9	70.7	70.5	69.8	69.8	69.8	69.4	69.1
Daily Max	74.8	75.5	74.5	74.3	74.7	74.8	74.8	73.3	72.2	71.8	72.2	72.2	71.3	71.2	71.3	70.5
Daily Min	72.1	72.9	72.1	72.1	72.8	71.9	72.4	71.6	70.9	70.3	70.0	69.5	69.6	69.3	69.0	68.8
Average	73.2	74.0	72.9	73.1	73.6	73.2	73.4	72.2	71.4	70.9	70.9	70.6	70.1	70.1	70.0	69.4

Monthly average temp (F): 70.2
 License Max. Average Temperature: 68 F

Dead River Below Hoist Powerhouse - August 2012 Temperature Monitoring Data

Time	8/17/2012	8/18/2012	8/19/2012	8/20/2012	8/21/2012	8/22/2012	8/23/2012	8/24/2012	8/25/2012	8/26/2012	8/27/2012	8/28/2012	8/29/2012	8/30/2012	8/31/2012
0	68.9	68.1	67.6	66.8	67.1	67.1	67.9	67.6	67.7	68.6	68.4	69.1	67.7	68.7	69.9
10000	68.8	68.0	67.5	66.7	67.0	67.0	67.7	67.5	67.7	68.5	68.4	68.9	67.6	68.8	69.8
20000	68.6	67.9	67.4	66.8	66.9	67.0	67.7	67.5	67.8	68.5	68.4	68.7	67.6	69.0	69.7
30000	68.4	67.8	67.3	66.8	66.9	66.9	67.6	67.4	67.8	68.5	68.4	68.5	67.6	69.0	69.6
40000	68.4	67.7	67.2	66.7	66.8	66.9	67.5	67.4	67.8	68.5	68.4	68.4	67.6	69.0	69.5
50000	68.4	67.6	67.1	66.6	66.7	66.8	67.6	67.4	67.8	68.4	68.3	68.4	67.6	69.0	69.5
60000	68.3	67.5	67.0	66.5	66.6	66.8	67.6	67.3	67.8	68.3	68.1	68.3	67.6	69.0	69.4
70000	68.2	67.5	66.9	66.4	66.5	66.8	67.6	67.3	67.9	68.2	68.0	68.2	67.6	68.9	69.3
80000	68.1	67.4	66.9	66.4	66.5	66.8	67.6	67.4	68.0	68.2	67.9	68.2	67.6	68.8	69.2
90000	68.1	67.5	67.0	66.5	66.5	67.0	67.7	67.4	68.1	68.3	67.9	68.2	67.8	69.0	69.2
100000	68.1	67.7	67.1	66.8	66.8	67.4	68.0	67.5	68.3	68.4	68.2	68.4	68.1	69.2	69.5
110000	68.4	68.3	67.3	67.2	67.3	67.8	68.5	67.8	68.7	68.6	68.7	68.9	68.5	69.7	69.8
120000	68.9	68.8	67.9	67.8	68.0	68.3	68.6	68.2	69.3	68.8	69.3	69.4	69.0	70.4	70.4
130000	69.3	68.9	68.6	68.2	68.5	68.9	68.4	68.4	69.8	69.0	69.7	69.4	69.6	71.0	70.9
140000	69.6	69.2	68.6	68.4	68.9	69.4	68.4	68.6	70.2	69.4	70.0	69.7	70.1	71.0	71.2
150000	69.8	69.1	68.5	68.4	69.1	69.8	68.3	69.3	70.4	69.1	70.3	69.8	70.4	71.3	71.4
160000	69.8	68.8	68.6	68.2	69.2	70.1	68.3	69.7	70.4	69.0	70.7	69.9	70.4	71.7	71.4
170000	69.7	68.5	68.6	68.5	69.3	70.0	68.3	69.5	70.3	69.1	70.8	69.8	70.2	71.5	71.5
180000	69.4	68.1	68.4	68.3	69.0	69.7	68.2	69.2	69.9	69.2	70.6	69.4	70.1	71.1	71.3
190000	69.0	68.2	67.9	68.1	68.7	69.5	68.2	68.8	69.6	68.9	70.2	68.9	69.9	71.0	71.1
200000	68.7	68.1	67.6	67.9	68.3	69.2	68.1	68.4	69.2	68.8	69.9	68.4	69.4	70.7	70.8
210000	68.5	67.9	67.4	67.7	68.0	68.9	67.9	68.1	69.0	68.7	69.6	68.2	69.0	70.4	70.5
220000	68.3	67.7	67.2	67.5	67.7	68.4	67.8	67.9	68.9	68.7	69.5	67.9	68.8	70.1	70.2
230000	68.2	67.6	66.9	67.3	67.4	68.1	67.7	67.7	68.7	68.5	69.3	67.8	68.7	70.0	70.0
Daily Max	69.8	69.2	68.6	68.5	69.3	70.1	68.6	69.7	70.4	69.4	70.8	69.9	70.4	71.7	71.5
Daily Min	68.1	67.4	66.9	66.4	66.5	66.8	67.5	67.3	67.7	68.2	67.9	67.8	67.6	68.7	69.2
Average	68.7	68.1	67.6	67.3	67.7	68.1	68.0	68.0	68.8	68.7	69.1	68.8	68.7	69.9	70.2

Dead River Storage Basin
2012 Dissolved Oxygen and Temperature Profile Data

6/5/2012
Time: 17:15 EDT
Weather: Partly Cloudy,

Secchi Disk - 7' 6"

Depth (meters)	DO mg/l	Temp °C	Temp °F
0.5	8.72	18.1	64.6
1.0	8.66	18	64.4
1.5	8.57	17.9	64.2
2.0	8.46	17.5	63.5
2.5	8.46	17.3	63.1
3.0	8.37	17.2	63.0
3.5	8.31	17.1	62.8
4.0	8.28	16.9	62.4
4.5	8.26	16.8	62.2
5.0	8.24	16.8	62.2
5.5	8.19	16.7	62.1
6.0	8.07	16.7	62.1
6.5	8.08	16.4	61.5
7.0	7.84	16.2	61.2
7.5	7.79	16.1	61.0
8.0	7.15	15.4	59.7
8.5	6.62	13.9	57.0

Comparison Readings - 2nd meter

0.5 m	8.72	18.2	64.8
10.5 m	6.76	14.1	57.4

6/19/2012
Time: 14:50 EST
Weather: Cloudy, 75°F, light winds
Secchi Disk - 7' 4"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	8.5	22.3	72.1
1.0	8.51	22.2	72.0
1.5	8.49	22.0	71.6
2.0	8.33	21.1	70.0
2.5	8.36	20.8	69.4
3.0	8.36	20.7	69.3
3.5	8.35	20.6	69.1
4.0	8.38	20.4	68.7
4.5	8.38	20.4	68.7
5.0	8.39	20.4	68.7
5.5	8.38	20.3	68.5
6.0	8.39	20.3	68.5
6.5	7.87	19.6	67.3
7.0	7.76	19.5	67.1
7.5	7.02	18.4	65.1
8.0	6.69	17.9	64.2
8.5	6.63	17.6	63.7
9.0	6.43	17.1	62.8
9.5	6.12	16.8	62.2
10.0	6.03	16.2	61.2
10.5	5.61	15.2	59.4

Comparison Readings - 2nd meter

0.5 m	8.5	22.7	72.9
10.5 m	5.44	16.1	61.0

7/2/2012
Time: 17:05 EDT
Weather: Partly Cloudy, 85 F, 5-10 mph winds
Secchi Disk - 7' 6"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	8.59	26.1	79.0
1.0	8.60	25.9	78.6
1.5	8.59	25.8	78.4
2.0	8.61	25.4	77.7
2.5	8.41	24.2	75.6
3.0	8.40	23.9	75.0
3.5	8.06	23.4	74.1
4.0	7.63	22.9	73.2
4.5	7.17	22.2	72.0
5.0	7.11	22.2	72.0
5.5	7.16	22.1	71.8
6.0	7.13	21.9	71.4
6.5	6.26	20.9	69.6
7.0	6.16	20.7	69.3
7.5	6.11	20.6	69.1
8.0	5.34	19.5	67.1
8.5	5.25	19.1	66.4
9.0	5.21	19.1	66.4
9.5	4.42	17.8	64.0

Comparison Readings - 2nd meter

0.5 m	8.37	26.8	80.2
9.5 m	4.42	17.7	63.9

Dead River Storage Basin
2012 Dissolved Oxygen and Temperature Profile Data

7/17/2012

Time: 16:15 EDT

Weather: Cloudy, light rain, 70 F

Secchi Disk - 8' 0"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	8.27	24.8	76.6
1.0	8.23	25	77.0
1.5	8.17	25.2	77.4
2.0	8.07	25.4	77.7
2.5	8.02	25.6	78.1
3.0	7.97	25.7	78.3
3.5	7.89	25.7	78.3
4.0	7.81	25.7	78.3
4.5	7.52	25.6	78.1
5.0	7.40	25.5	77.9
5.5	6.25	24.6	76.3
6.0	5.31	23.6	74.5
6.5	4.88	23	73.4
7.0	4.56	22.4	72.3
7.5	4.40	22	71.6
8.0	3.59	20.9	69.6
8.5	3.15	20.1	68.2
9.0	2.55	19.4	66.9
9.5	2.41	18.9	66.0

Comparison Readings - 2nd meter

0.5 m	8.2	25.0	77.0
9.5 m	2.6	18.6	65.5

7/31/2012

Time: 16:40 EDT

Weather: Sunny

Secchi Disk - 8' 0"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	7.94	25.3	77.5
1.0	7.89	25.4	77.7
1.5	7.88	25.4	77.7
2.0	7.87	25.4	77.7
2.5	7.77	25.2	77.4
3.0	7.54	24.6	76.3
3.5	7.52	24.4	75.9
4.0	7.51	24.4	75.9
4.5	7.49	24.4	75.9
5.0	7.48	24.3	75.7
5.5	7.47	24.3	75.7
6.0	7.46	24.3	75.7
6.5	7.45	24.3	75.7
7.0	7.44	24.2	75.6
7.5	6.72	23.7	74.7
8.0	6.72	23.6	74.5
8.5	6.67	23.6	74.5
9.0	0.96	20.8	69.4
9.5	0.71	20.1	68.2
10.0	0.69	19.7	67.5

Comparison Readings - 2nd meter

0.5 m	7.8	26.1	79.0
9.5 m	0.91	20.1	68.2

8/14/2012

Time: 16:40 EDT

Weather: Mostly cloudy, 73F, NW winds 5-10

Secchi Disk - 8' 0"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	8.00	23.2	73.8
1.0	7.95	23.3	73.9
1.5	7.80	22.7	72.9
2.0	7.72	22.3	72.1
2.5	7.69	22.1	71.8
3.0	7.64	22.0	71.6
3.5	7.49	21.8	71.2
4.0	7.49	21.8	71.2
4.5	7.48	21.7	71.1
5.0	7.50	21.7	71.1
5.5	7.50	21.7	71.1
6.0	7.51	21.7	71.1
6.5	7.51	21.7	71.1
7.0	7.43	21.6	70.9
7.5	7.36	21.6	70.9
8.0	7.33	21.6	70.9
8.5	7.42	21.6	70.9
9.0	7.25	21.5	70.7
9.5	4.25	20.3	68.5
10.0	0.21	17.7	63.9
10.5	0.15	17.1	62.8

Comparison Readings - 2nd meter

0.5 m	7.93	23.2	73.8
9.5 m	0.24	17.2	63.0

Dead River Storage Basin
2012 Dissolved Oxygen and Temperature Profile Data

8/28/2012

Time: 15:30 EDT

Weather: Clear, light wind

Secchi Disk - 7' 6"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	8.53	23	73.4
1.0	8.44	22.8	73.0
1.5	8.48	22.1	71.8
2.0	8.43	21.9	71.4
2.5	8.36	21.8	71.2
3.0	8.31	21.7	71.1
3.5	8.29	21.7	71.1
4.0	8.27	21.7	71.1
4.5	8.25	21.6	70.9
5.0	6.65	20.8	69.4
5.5	6.66	20.6	69.1
6.0	6.46	20.4	68.7
6.5	6.45	20.2	68.4
7.0	6.44	20.1	68.2
7.5	6.44	20.1	68.2
8.0	6.35	20.1	68.2
8.5	6.3	20	68.0
9.0	6.07	19.8	67.6
9.5	6.03	19.7	67.5

Comparison Readings - 2nd meter

0.5 m	8.53	23.0	73.4
9.5 m	6.22	20.2	68.4

9/11/2012

Time: 16:35 EDT

Weather: Partly Cloudy, moderate wind

Secchi Disk - 7' 0"

Depth (m)	DO mg/l	Temp °C	Temp °F
0.5	8.32	20.8	69.4
1.0	8.25	20.4	68.7
1.5	8.2	20.1	68.2
2.0	8.18	20.1	68.2
2.5	8.17	20.1	68.2
3.0	8.15	20	68.0
3.5	8.13	20	68.0
4.0	8.11	20	68.0
4.5	8.07	20	68.0
5.0	8.02	19.9	67.8
5.5	8	19.9	67.8
6.0	7.98	19.9	67.8
6.5	7.95	19.9	67.8
7.0	7.94	19.9	67.8
7.5	7.84	19.7	67.5
8.0	7.8	19.7	67.5
8.5	7.79	19.6	67.3
9.0	7.77	19.6	67.3

Comparison Readings - 2nd meter

0.5 m	8.3	20.8	69.4
9.5 m	7.71	19.8	67.6

Document Content(s)

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