DEEP CREEK HYDROELECTRIC STATION
MARYLAND DEPARTMENT of the ENVIRONMENT
WATER APPROPRIATION
PERMIT NO. GA1992S009 (07)
GARRETT COUNTY, MARYLAND

2007 ANNUAL REPORT

January 2008

Prepared By:

DEVINE TARBELL & ASSOCIATES, INC

for

BROOKFIELD POWER PINEY & DEEP CREEK, LLC

DEEP CREEK HYDROELECTRIC STATION
MDE WATER APPROPRIATION PERMIT NO. GA1992S009 (07)
ANNUAL REPORT 2007

TABLE OF CONTENTS

SECTION		PAGE
1.0	SUMMARY	- 1 -
1.1	LAKE LEVEL MONITORING.	- 1 -
1.2	TEMPERATURE MONITORING	- 2 -
1.3	MINIMUM FLOW RELEASE MONITORING	- 3 -
1.4	DISOLVED OXYGEN (DO) MONITORING	- 3 -
1.5	RELEASES UNSUITABLE FOR WHITEWATER RECREATION ...	- 4 -
1.6	ZEBRA MUSSEL MONITORING	- 4 -

APPENDICES

APPENDIX A - LAKE LEVEL DATA AND PLOT

APPENDIX B – LAKE LEVEL RULE BAND VARIANCE APPROVAL DOCUMENTATION

APPENDIX C - DAILY MAXIMUM SANG RUN TEMPERATURES, TEMPERATURE ENHANCEMENT PLAN SANG RUN TEMPERATURE EXCEEDANCES, AND DAILY TEMPERATURE PLAN SHEETS

APPENDIX D - FLOW BYPASS OPERATION RECORD

APPENDIX E - RECORD OF DISOLVED OXYGEN MONITORING

APPENDIX F – WATER APPROPRIATION AND USE PERMIT – GA1992S009(07)

APPENDIX G - WHITEWATER EMAIL COMMUNICATION WITH MARYLAND DEPARTMENT OF THE ENVIRONMENT

APPENDIX H - ZEBRA MUSSEL MONITORING REPORT

DEEP CREEK HYDROELECTRIC STATION
MDE WATER APPROPRIATION PERMIT NO. GA1992S009 (07)
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1.0 SUMMARY

Brookfield Power Piney & Deep Creek, LLC (Permittee) holds a Water Appropriation Permit that provides for the continued operation of the Deep Creek Hydroelectric Station. On April 1, 2007 the previous Water Appropriation Permit GA92S009(06) was superseded by a renewed Water Appropriations Permit GA1992S009(07). This renewed permit resulted in minor changes to Permit Conditions 17, 19, and 20. Permit Condition 23 requires the Permittee to submit an annual report to the MDE, which includes data and information as specified in Permit Conditions 15 through 19 and 21. Changes to the above referenced Permit Conditions are reflected in this annual report.

1.1 LAKE LEVEL MONITORING

End of Month Levels

Appendix A contains daily water level data for 2007 in tabular and graphical format. Reservoir levels exceeded the desired end of month Upper Rule Band (URB) by 0.2 feet in August and exceeded the desired end of month Lower Rule Band (LRB) by 1.5 feet in October. This past October through mid-November, a variance of the LRB was implemented to carry out a much needed valve replacement. This LRB variance was approved by the Maryland Department of the Environment (MDE) via letter dated February 8, 2007. Appendix B provides a copy of this approval letter. Desired end of month reservoir levels during the remainder of the year did not exceed the desired end of month URB or LRB. Reservoir levels were below the URB for 2007 as follows:

TABLE 1 – Lake Level in Feet Below URB

MONTH OF YEAR	FEET ABOVE (+) or BELOW (-) URB
January	-1.1
February	-1.2
March	-0.5
April	-0.8
May	-0.6
June	-1.1
July	-0.6
August	+0.2
September	-1.4
October	-3.4
November	-2.4
December	-0.4

Daily Levels

The following describes each daily exceedance of the Upper and Lower Rule Bands. Appendix A provides a graphical and tabular summary of the daily exceedances of the Upper and Lower Rule Bands for 2007.

The Deep Creek Reservoir level was maintained within the Upper and Lower Rule Bands between elevations 2455.9 ft. msl. and 2460.5 ft. msl. from January 1 through August 21.

Between August 17 and August 22, the Deep Creek watershed received over 5" of precipitation causing the reservoir to rise above the URB by 0.2 to 0.4 ft. to a maximum elevation of 2459.6 ft. msl. from August 22 through August 31.

From September 1 through September 7, the reservoir remained above the URB by 0.1 to 0.5 feet between elevations 2458.6 ft. msl. and 2459.0 ft. msl.

The Deep Creek Reservoir remained at or below the URB from September 8 through December 12. During this period however, the reservoir fell below the LRB as further explained below.

From October 13 through November 15, the reservoir was below the LRB by 0.1 to 1.9 feet between elevations 2454.1 ft. msl and 2455.9 ft. msl. This variance was due to an MDE approved reservoir drawdown for valve maintenance. See Appendix B for variance approval documentation.

The Deep Creek Reservoir remained at or above the LRB from November 16 through the end of the calendar year.

Between December 3 and December 17, the Deep Creek Watershed received 6.72" of rain and an additional 5" of snow, causing the reservoir surface elevation to exceed the URB by 0.2 to 1.0 feet between elevations 2458.2 ft. msl. and 2458.9 ft. msl. from December 13 through December 19.

The Deep Creek Reservoir remained at or below the URB from December 20 through the end of the calendar year.

1.2 TEMPERATURE MONITORING

The Permittee monitored water temperature in the Youghiogheny River in accordance with the "Deep Creek Station, Water Temperature Enhancement Plan" (approved June 8, 1996, revised September 2001). The Plan was designed to maintain river water temperatures below 25° C in the Youghiogheny River. By letters dated July 5, August 8, and September 5, 2007, the Permittee provided the MDE with temperature excursion dates at the Sang Run temperature monitoring station and an explanation for

those excursions. The primary reason for these excursions was due to the inherent unpredictability of the model. This model attempts to predict future temperatures of the Youghiogheny River based on air temperature readings, cloud cover factor, cloud cover forecast, river flow, and actual water temperature readings. Due to the multitude of parameters used in the predictions, inherent variability in the predicted temperatures exists.

The Permittee released water in accordance with the Water Temperature Enhancement Plan on 17 days in 2007, 5 of which were a combined temperature enhancement and whitewater release. Temperature enhancement releases occurred on June 2, 7, 10, 13, 17, 20, 26-28, July 10, and August 1 and 2. Combined releases occurred on June 8, 18, 30, and August 3 and 4.

The temperature enhancement protocol predicted water temperatures in excess of 25° C on June 7, 9, 13, 17, 20, 26-28, July 10, and August 1, and 2. Appendix C presents the Sang Run temperature excursion dates, the duration of each excursion, an explanation for the excursion and the maximum temperature for each date during the period of June 1 through August 31, 2007.

Water temperature at Sang Run reached 25° C or greater on June 9, 10, 12, 17, 20, 21, 25-28, July 8, 17, 31, and August 2, and 9 according to the Sang Run temperature data acquired by the Permittee.

The temperature enhancement protocol was not required by the temperature enhancement plan on July 6-9, 12-14, 16-22, 28-31, and August 6-15, 17, 18, and 21-29 as flows at the Oakland gage were greater than 100 cfs.

No maximum temperature readings were provided by Versar from June 1-7 for Sang Run. Appendix C presents 1) summary tables of the temperature exceedance dates at Sang Run, 2) the temperature enhancement release dates, 3) the maximum daily temperature comparison table (Brookfield and VERSAR data), and 4) the daily Deep Creek Station, Water Temperature Enhancement Plan data sheets.

1.3 MINIMUM FLOW RELEASE MONITORING

The Permittee operated the flow bypass in accordance with the "Deep Creek Station Flow Bypass Operation Protocol" (May 1995, revised September 2001). The flow bypass protocol requires the Permittee to maintain a minimum flow of 40 cfs in the Youghiogheny River immediately downstream of the tailrace. Starting January 1, and continuing through December 30, the Permittee monitored the river flows at the Oakland gage. As required by the protocol, when calculated flows downstream of the tailrace are below 40 cfs, the Permittee may be required to open a bypass valve to release enough water to maintain 40 cfs.

The 2007 water year was an average precipitation year. The Permittee provided bypass flow to the Youghiogheny River below the project tailrace on 17 days.

The table in Appendix D summarizes flow bypass data for June through November 2007, when flows in the Youghiogheny River were less than 26 cfs. Flow data were obtained from the USGS recording at the Oakland gage, direct readings from the Oakland gage, or from the tailrace gage at the station, per guidance provided in the protocol. Valve openings (See Appendix D) were determined from Table 3 of the protocol and based on station operating status.

1.4 DISSOLVED OXYGEN MONITORING

The Permittee operated the dissolved oxygen enhancement weir during 2007 in accordance with the "Dissolved Oxygen (DO) Enhancement Operations and Monitoring Protocol" approved by the MDE on January 6th, 1995. Data obtained from DO monitoring in 2007 are included in Appendix E.

1.5 RELEASES UNSUITABLE FOR WHITEWATER RECREATION

Permit Condition 19 has changed significantly from the previous permit. Permit Condition 19 outlines several operating rules designed to enhance whitewater boating opportunities in the Youghiogheny River.

Permit Condition 19.A provides a standard whitewater release (WWR) schedule, a special WWR schedule, and a provision that allows the permittee to combine temperature enhancement releases with scheduled WWR. These conditions apply from April 15 through October 15, annually.

Permit Condition 19.B provides additional operating rules that condition the operations of the Deep Creek facility based on flows at the Friendsville gage and Deep Creek Lake levels.

More specifically, Permit Condition 19.B.V allows the Permittee to employ either a "3rd Hour Regulation" or an "All Hour Regulation" approach for plant operations in addition to the previously referenced conditions.

Additional details of these permit conditions can be found in Appendix F.

No releases unsuitable for whitewater recreation occurred during 2007.

ALTERED WHITEWATER RELEASES

The June 25, 2007 whitewater release was postponed due to low lake levels, (2460 ft. msl) and a June 29, 2007 whitewater release was added via email communication with Maryland Department of the Environment (See Appendix G).

In addition, the July 6, 2007 whitewater release was curtailed due to high river flows in the Youghiogheny, and the July 7, 2007 whitewater release was reduced due to these high flows (Friendsville gage in excess of 800 cfs).

1.6 ZEBRA MUSSEL MONITORING

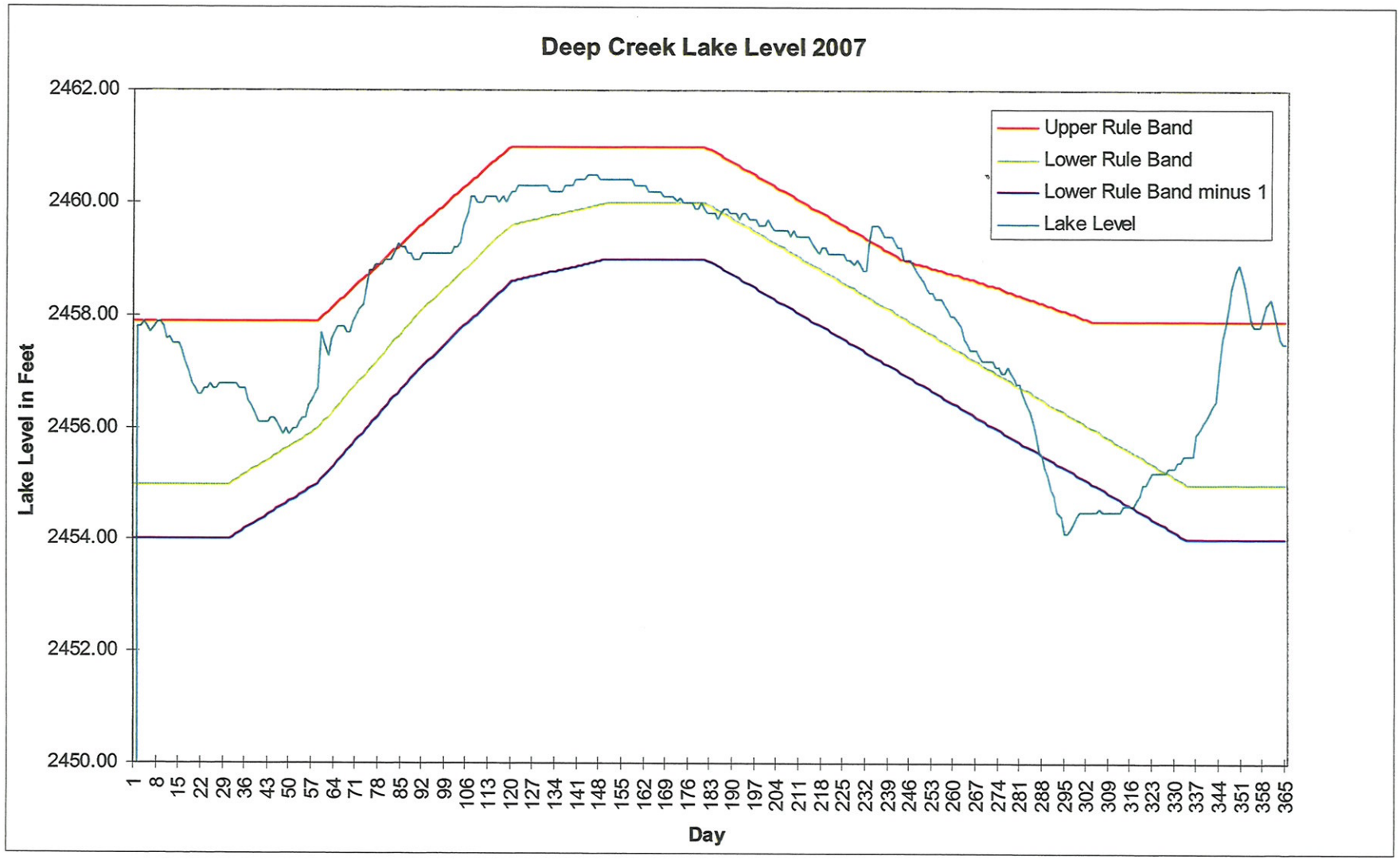
Artificial substrates placed at the station intake area during 2007 showed no signs of zebra mussel infestation. Appendix H contains the 2007 Zebra Mussel Monitoring Report data sheet.

APPENDIX A

LAKE LEVEL DATA AND PLOT

DEEP CREEK LAKE LEVEL GRAPH

FIGURE A-1



DEEP CREEK LAKE LEVEL GRAPH - 2007

DEEP CREEK DAILY LAKE LEVEL TABLE

TABLE A-1

Deep Creek Lake Level 2007

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Jan	1	N/C	N/C
	2	2457.8	0.54
	3	2457.8	0.00
	4	2457.9	0.00
	5	2457.8	0.16
	6	2457.7	0.25
	7	2457.8	0.07
	8	2457.9	0.65
	9	2457.9	0.11
	10	2457.8	0.17
	11	2457.6	0.00
	12	2457.6	0.00
	13	2457.5	0.20
	14	2457.5	0.50
	15	2457.5	0.58
	16	2457.4	0.64
	17	2457.2	0.00
	18	2457.0	0.00
	19	2456.8	0.16
	20	2456.7	0.20
	21	2456.6	0.11
	22	2456.6	0.19
	23	2456.7	0.12
	24	2456.7	0.00
	25	2456.8	0.00
	26	2456.7	0.00
	27	2456.7	0.03
	28	2456.8	0.25
	29	2456.8	0.13
	30	2456.8	0.00
	31	2456.8	0.02
Total			**5.08**

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Feb	1	2456.8	0.03
	2	2456.8	0.02
	3	2456.7	0.13
	4	2456.7	0.00
	5	2456.7	0.00
	6	2456.5	0.00
	7	2456.4	0.02
	8	2456.3	0.06
	9	2456.1	0.00
	10	2456.1	0.00
	11	2456.1	0.00
	12	2456.1	0.00
	13	2456.2	0.02
	14	2456.2	0.80
	15	2456.1	0.09
	16	2456.0	0.00
	17	2455.9	0.00
	18	2456.0	0.00
	19	2455.9	0.00
	20	2456.0	0.01
	21	2456.0	0.55
	22	2456.1	0.00
	23	2456.2	0.11
	24	2456.2	0.09
	25	2456.4	0.00
	26	2456.5	0.88
	27	2456.6	0.00
	28	2456.7	0.00
			2.81

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Mar	1	2457.7	0.00
	2	2457.5	0.88
	3	2457.3	0.35
	4	2457.6	0.10
	5	2457.7	0.05
	6	2457.8	0.02
	7	2457.8	0.05
	8	2457.8	0.43
	9	2457.7	0.00
	10	2457.7	0.00
	11	2457.9	0.00
	12	2458.0	0.00
	13	2458.1	0.00
	14	2458.2	0.00
	15	2458.5	0.30
	16	2458.8	0.30
	17	2458.8	0.43
	18	2458.9	0.10
	19	2458.9	0.03
	20	2458.9	0.75
	21	2459.0	0.00
	22	2459.0	0.00
	23	2459.0	0.08
	24	2459.1	0.90
	25	2459.2	0.10
	26	2459.2	0.00
	27	2459.2	0.05
	28	2459.1	0.00
	29	2459.1	0.00
	30	2459.0	0.00
	31	2459.0	0.00
			4.92

TABLE A-1

Deep Creek Lake Level 2007

Month	Day	Lake Level (ft. msl.)	Rain Fall (in.)
Apr	1	2459.0	0.07
	2	2459.1	0.87
	3	2459.1	0.00
	4	2459.1	0.00
	5	2459.1	0.05
	6	2459.1	0.07
	7	2459.1	0.02
	8	2459.1	0.05
	9	2459.1	0.29
	10	2459.1	0.29
	11	2459.1	0.29
	12	2459.2	0.81
	13	2459.2	0.16
	14	2459.3	0.04
	15	2459.6	1.92
	16	2459.8	1.30
	17	2460.1	0.87
	18	2460.1	0.55
	19	2460.0	0.00
	20	2460.0	0.00
	21	2460.0	0.00
	22	2460.1	0.00
	23	2460.1	0.00
	24	2460.1	0.12
	25	2460.1	0.00
	26	2460.0	0.03
	27	2460.1	0.37
	28	2460.0	0.13
	29	2460.1	0.05
	30	2460.2	0.03
Total			**8.39**

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
May	1	2460.2	0.00
	2	2460.3	0.25
	3	2460.3	0.20
	4	2460.3	0.00
	5	2460.3	0.00
	6	2460.3	0.03
	7	2460.3	0.00
	8	2460.3	0.00
	9	2460.3	0.00
	10	2460.3	0.05
	11	2460.3	0.00
	12	2460.2	0.00
	13	2460.2	0.00
	14	2460.2	0.00
	15	2460.2	0.00
	16	2460.2	0.00
	17	2460.3	0.98
	18	2460.3	0.02
	19	2460.3	0.84
	20	2460.4	0.08
	21	2460.4	0.00
	22	2460.4	0.00
	23	2460.4	0.00
	24	2460.5	0.00
	25	2460.5	0.00
	26	2460.5	0.00
	27	2460.5	0.00
	28	2460.4	0.00
	29	2460.4	0.00
	30	2460.4	0.00
	31	2460.4	0.00
			2.45

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Jun	1	2460.4	0.95
	2	2460.4	0.00
	3	2460.4	0.10
	4	2460.4	0.43
	5	2460.4	0.00
	6	2460.4	0.03
	7	2460.4	0.00
	8	2460.3	0.00
	9	2460.3	0.10
	10	2460.3	0.00
	11	2460.3	0.00
	12	2460.2	0.00
	13	2460.2	0.55
	14	2460.2	0.03
	15	2460.2	0.00
	16	2460.2	0.00
	17	2460.1	0.00
	18	2460.1	0.00
	19	2460.1	0.00
	20	2460.1	0.32
	21	2460.0	0.00
	22	2460.1	0.61
	23	2460.0	0.00
	24	2460.0	0.00
	25	2460.0	0.00
	26	2460.0	0.00
	27	2459.9	0.00
	28	2459.9	0.15
	29	2460.0	1.01
	30	2459.9	0.00
			4.28

TABLE A-1

Deep Creek Lake Level 2007

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Jul	1	2459.8	0.00
	2	2459.8	0.00
	3	2459.8	0.00
	4	2459.7	0.00
	5	2459.8	0.37
	6	2459.9	1.25
	7	2459.9	0.00
	8	2459.8	0.00
	9	2459.8	0.00
	10	2459.8	0.00
	11	2459.7	0.45
	12	2459.8	0.64
	13	2459.8	0.00
	14	2459.7	0.00
	15	2459.7	0.00
	16	2459.7	0.75
	17	2459.6	0.00
	18	2459.6	0.00
	19	2459.6	0.16
	20	2459.7	0.59
	21	2459.6	0.00
	22	2459.5	0.00
	23	2459.5	0.00
	24	2459.5	0.00
	25	2459.5	0.65
	26	2459.5	0.00
	27	2459.4	0.21
	28	2459.5	0.47
	29	2459.4	1.20
	30	2459.4	0.00
	31	2459.4	0.00
Total			**6.74**

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Aug	1	2459.4	0.00
	2	2459.4	0.00
	3	2459.3	0.00
	4	2459.2	0.00
	5	2459.1	0.00
	6	2459.2	1.02
	7	2459.2	0.00
	8	2459.1	0.00
	9	2459.1	0.40
	10	2459.1	0.50
	11	2459.1	0.05
	12	2459.1	0.00
	13	2459.1	0.00
	14	2459.0	0.00
	15	2459.0	0.00
	16	2458.9	0.00
	17	2459.0	0.85
	18	2458.9	0.00
	19	2458.8	0.00
	20	2458.8	0.27
	21	2459.3	3.90
	22	2459.6	0.09
	23	2459.6	0.02
	24	2459.6	0.00
	25	2459.5	0.00
	26	2459.4	0.05
	27	2459.4	0.03
	28	2459.4	0.05
	29	2459.3	0.00
	30	2459.2	0.00
	31	2459.2	0.05
			7.28

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Sep	1	2459.0	0.00
	2	2459.0	0.00
	3	2459.0	0.00
	4	2458.9	0.00
	5	2458.8	0.00
	6	2458.7	0.00
	7	2458.6	0.00
	8	2458.5	0.00
	9	2458.4	0.00
	10	2458.4	0.00
	11	2458.3	0.00
	12	2458.3	0.84
	13	2458.3	0.00
	14	2458.2	0.00
	15	2458.1	0.39
	16	2458.0	0.00
	17	2458.0	0.00
	18	2457.9	0.00
	19	2457.8	0.00
	20	2457.6	0.00
	21	2457.5	0.00
	22	2457.4	0.00
	23	2457.4	0.00
	24	2457.4	0.00
	25	2457.3	0.00
	26	2457.2	0.00
	27	2457.2	0.35
	28	2457.2	0.26
	29	2457.2	0.00
	30	2457.1	0.00
			1.84

TABLE A-1

Deep Creek Lake Level 2007

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Oct	1	2457.1	0.00
	2	2457	0.00
	3	2457	0.00
	4	2457.1	0.00
	5	2457	0.00
	6	2456.9	0.00
	7	2456.8	0.00
	8	2456.8	0.00
	9	2456.6	0.00
	10	2456.4	0.57
	11	2456.3	0.00
	12	2456.1	0.51
	13	2455.9	0.00
	14	2455.6	0.00
	15	2455.5	0.00
	16	2455.3	0.00
	17	2455.2	0.00
	18	2454.9	0.00
	19	2454.8	0.00
	20	2454.5	0.30
	21	2454.4	0.00
	22	2454.1	0.00
	23	2454.1	0.00
	24	2454.2	0.75
	25	2454.3	1.23
	26	2454.4	0.00
	27	2454.5	0.55
	28	2454.5	0.13
	29	2454.5	0.00
	30	2454.5	0.00
	31	2454.5	0.00
Total			**4.04**

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Nov	1	2454.5	0.00
	2	2454.54	0.00
	3	2454.5	0.00
	4	2454.5	0.00
	5	2454.5	0.00
	6	2454.5	0.00
	7	2454.5	0.03
	8	2454.5	0.00
	9	2454.5	0.00
	10	2454.6	0.22
	11	2454.6	0.00
	12	2454.6	0.18
	13	2454.6	0.20
	14	2454.7	0.00
	15	2454.8	1.45
	16	2455	0.15
	17	2455	0.00
	18	2455.1	0.20
	19	2455.2	0.00
	20	2455.2	0.00
	21	2455.2	0.00
	22	2455.2	0.00
	23	2455.2	0.07
	24	2455.3	0.00
	25	2455.3	0.00
	26	2455.3	0.12
	27	2455.4	0.87
	28	2455.4	0.00
	29	2455.5	0.00
	30	2455.5	0.00
			3.49

Month	Day	Lake Level (ft. msl)	Rain Fall (in.)
Dec	1	2455.5	0.00
	2	2455.5	0.00
	3	2455.9	1.75
	4	2456	5"snow
	5	2456.1	0.00
	6	2456.2	0.35
	7	2456.3	0.00
	8	2456.4	0.05
	9	2456.5	0.44
	10	2457.1	1.64
	11	2457.6	0.22
	12	2457.8	0.00
	13	2458.1	0.28
	14	2458.5	1.52
	15	2458.8	0.00
	16	2458.9	0.20
	17	2458.7	0.27
	18	2458.5	0.00
	19	2458.2	0.00
	20	2457.9	0.00
	21	2457.8	0.00
	22	2457.8	0.00
	23	2457.8	0.00
	24	2458	0.63
	25	2458.2	0.00
	26	2458.3	0.00
	27	2458.08	0.00
	28	2457.83	0.00
	29	2457.6	0.72
	30	2457.5	0.00
	31	2457.5	0.10
			8.17
		Year Total	**59.49**

SUMMARY OF DAILY EXCEEDANCES OF THE UPPER AND LOWER RULE BANDS

TABLE A-2
Summary of Daily Variances of the Upper and Lower Rule Bands - 2007

Date	Reservoir Level (Ft)	Upper Rule Band (Ft)	Lower Rule Band (Ft)	Δ (Ft)
August 1	2459.4	2459.0	2458.0	0.4
August 2	2459.4	2459.0	2458.0	0.4
August 3	2459.3	2459.0	2458.0	0.3
August 4	2459.2	2459.0	2458.0	0.2
August 5	2459.1	2459.0	2458.0	0.1
August 6	2459.2	2459.0	2458.0	0.2
August 7	2459.2	2459.0	2458.0	0.2
August 8	2459.1	2459.0	2458.0	0.1
August 9	2459.1	2459.0	2458.0	0.1
August 10	2459.1	2459.0	2458.0	0.1
August 11	2459.1	2459.0	2458.0	0.1
August 12	2459.1	2459.0	2458.0	0.1
August 13	2459.1	2459.0	2458.0	0.1
August 21	2459.3	2459.0	2458.0	0.3
August 22	2459.6	2459.0	2458.0	0.6
August 23	2459.6	2459.0	2458.0	0.6
August 24	2459.6	2459.0	2458.0	0.6
August 25	2459.5	2459.0	2458.0	0.5
August 26	2459.4	2459.0	2458.0	0.4
August 27	2459.4	2459.0	2458.0	0.4
August 28	2459.4	2459.0	2458.0	0.4
August 29	2459.3	2459.0	2458.0	0.3
August 30	2459.2	2459.0	2458.0	0.2
August 31	2459.2	2459.0	2458.0	0.2
September 1	2459.0	2458.5	2457.0	0.5
September 2	2459.0	2458.5	2457.0	0.5
September 3	2459.0	2458.5	2457.0	0.5
September 4	2458.9	2458.5	2457.0	0.4

TABLE A-2
Summary of Daily Variances of the Upper and Lower Rule Bands - 2007

Date	Reservoir Level (Ft)	Upper Rule Band (Ft)	Lower Rule Band (Ft)	Δ (Ft)
September 5	2458.8	2458.5	2457.0	0.3
September 6	2458.7	2458.5	2457.0	0.2
September 7	2458.6	2458.5	2457.0	0.1
October 13	2455.9	2457.9	2456.0	-0.1
October 14	2455.6	2457.9	2456.0	-0.4
October 15	2455.5	2457.9	2456.0	-0.5
October 16.	2455.3	2457.9	2456.0	-0.7
October 17	2455.2	2457.9	2456.0	-0.8
October 18	2454.9	2457.9	2456.0	-1.1
October 19	2454.8	2457.9	2456.0	-1.2
October 20	2454.5	2457.9	2456.0	-1.5
October 21	2454.4	2457.9	2456.0	-1.6
October 22	2454.1	2457.9	2456.0	-1.9
October 23	2454.1	2457.9	2456.0	-1.9
October 24	2454.2	2457.9	2456.0	-1.8
October 25	2454.3	2457.9	2456.0	-1.7
October 26	2454.4	2457.9	2456.0	-1.6
October 27	2454.5	2457.9	2456.0	-1.5
October 28	2454.5	2457.9	2456.0	-1.5
October 29	2454.5	2457.9	2456.0	-1.5
October 30	2454.5	2457.9	2456.0	-1.5
October 31	2454.5	2457.9	2456.0	-1.5
November 1	2454.5	2457.9	2455.0	-0.5
November 2	2454.5	2457.9	2455.0	-0.5
November 3	2454.5	2457.9	2455.0	-0.5
November 4	2454.5	2457.9	2455.0	-0.5
November 5	2454.5	2457.9	2455.0	-0.5
November 6	2454.5	2457.9	2455.0	-0.5

TABLE A-2
Summary of Daily Variances of the Upper and Lower Rule Bands - 2007

Date	Reservoir Level (Ft)	Upper Rule Band (Ft)	Lower Rule Band (Ft)	Δ (Ft)
November 7	2454.5	2457.9	2455.0	-0.5
November 8	2454.5	2457.9	2455.0	-0.5
November 9	2454.5	2457.9	2455.0	-0.5
November 10	2454.6	2457.9	2455.0	-0.4
November 11	2454.6	2457.9	2455.0	-0.4
November 12	2454.6	2457.9	2455.0	-0.4
November 13	2454.6	2457.9	2455.0	-0.4
November 14	2454.7	2457.9	2455.0	-0.3
November 15	2454.8	2457.9	2455.0	-0.2
December 13	2458.1	2457.9	2455.0	0.2
December 14	2458.5	2457.9	2455.0	0.6
December 15	2458.8	2457.9	2455.0	0.9
December 16	2458.9	2457.9	2455.0	1.0
December 17	2458.7	2457.9	2455.0	0.8
December 18	2458.5	2457.9	2455.0	0.6
December 19	2458.2	2457.9	2455.0	0.3

APPENDIX B

LAKE LEVEL RULE BAND VARIANCE APPROVAL DOCUMENTATION

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • Baltimore MD 21230
410-537-3000 • 1-800-633-6101

Martin O'Malley
Governor

Anthony G. Brown
Lieutenant Governor

Shari T. Wilson
Acting Secretary

February 8, 2007

Mr. Kenneth N. Kemp, P. E.
Brookfield Power
225 Greenfield Parkway, Suite 201
Liverpool, NY 13088

Dear Mr. Kemp:

The Maryland Department of the Environment is in receipt of your letter dated January 19, 2007 requesting a deviation from the Rule Band in order to carry out much needed valve replacement. We also received your email of February 5, 2007 regarding the anticipated water level on October 14 during the drawdown period.

We approve the initiation of a drawdown on October 8, 2007 to lower the lake level below the Lower Rule Band and the achievement of elevation 2454 by October 22, 2007. Your letter of January 19 explained the reasons for the drawdown and potential impacts on whitewater and fishery recreation on the Youghigheny River as required in Brookfield's Water Appropriation and Use Permit - Condition 14.

Condition 22 of the Permit contains specific notification requirements for generation releases citing particularly Hoyes Run and Sang Run as locations where hazard warnings are warranted. A notice regarding the timing and duration of this continual release should be posted at all sites where the general hazard posting is located. We recommend that such posting be completed by September 8, 2007.

Finally, we discussed the need to put out a notice in the local paper (*The Republican*) concerning the drawdown. We are recommending that an ad be placed in the editions that come out prior to Memorial Day, Fourth of July and Labor Day.

If you have any questions or comments, please call me at (410) 537-3714.

Sincerely

John Grace, Chief
Source Protection and Appropriation Division
Water Supply Program

JG:cpj

cc: Mr. Jeff Ausher, Brookfield Power
Mr. Glenn Neiport, Brookfield Power
Mr. Tom Uncher, Brookfield Power
Mr. Greg Golden, MDNR
Ms. Carolyn Mathews, MDNR
Mr. Rich McLean, MDNR
Mr. John Wilson, MDNR
Mr. John Forman, Deep Creek Policy and Review Board
Mr. Scott Johnson, Property Owners Asso., Deep Creek Lake
Mr. Herb Sachs, MDE

APPENDIX C

DAILY MAXIMUM SANG RUN TEMPERATURES, TEMPERATURE ENHANCEMENT PLAN SANG RUN TEMPERATURE EXCEEDANCES, AND DAILY TEMPERATURE PLAN SHEETS

Daily maximum river water temperatures in the Youghiogheny River at Sang Run are presented in the tables in this appendix. These data were collated and provided by Versar, Inc., consultant to the MDE Power Plant Assessment Division (PPAD).

The column labeled "SMAX" lists the arithmetic means of the daily maximum water temperatures, in degrees C, measured by two "Tempmentors" placed in the river by the MDE. The column labeled "PMAX" lists the maximum water temperatures, in degrees C, measured by the Permittee's temperature monitor at the Sang Run Bridge. PPAD and Versar analyze the data to evaluate the Water Temperature Enhancement Plan used by the Permittee to determine the need and timing of daily temperature releases.

Days when temperatures exceeded 25° C and days when temperature enhancement releases were made are summarized in the following tables. Daily Temperature Enhancement Plan sheets for each of these dates are also enclosed.

MAXIMUM DAILY RIVER WATER TEMPERATURES AT SANG RUN

TABLE C-1

DEEP CREEK STATION YOUGHIOGHENY RIVER TEMPERATURE DATA 2005								
JUNE	**SMAX**	**PMAX**	**JULY**	**SMAX**	**PMAX**	**AUGUST**	**SMAX**	**PMAX**
1	N/A	21.68	1	23.76	24.50	1	**25.94**	24.95
2	N/A	23.68	2	21.81	20.37	2	**26.55**	**25.84**
3	N/A	20.70	3	23.93	24.67	3	24.63	23.74
4	N/A	20.78	4	21.98	22.60	4	23.07	22.89
5	N/A	21.11	5	19.92	20.68	5	21.47	22.34
6	N/A	22.94	6	19.43	20.08	6	22.49	22.69
7	N/A	24.72	7	20.90	21.87	7	24.11	24.28
8	22.06	21.75	8	**25.33**	**25.96**	8	23.67	23.28
9	**25.59**	**26.40**	9	24.02	22.97	9	**25.41**	**25.44**
10	**25.50**	**25.42**	10	24.80	24.67	10	22.65	22.91
11	22.23	20.98	11	22.65	22.91	11	22.15	23.15
12	24.80	**25.29**	12	22.15	22.84	12	22.82	23.87
13	24.63	24.39	13	20.24	19.93	13	21.89	21.62
14	20.32	20.80	14	21.15	21.22	14	23.25	23.67
15	18.37	19.15	15	23.85	23.78	15	23.76	24.59
16	23.59	24.06	16	21.81	22.76	16	21.47	21.16
17	**25.94**	**25.72**	17	24.63	**25.13**	17	21.73	21.91
18	23.93	23.41	18	23.42	24.08	18	20.73	20.97
19	24.46	24.88	19	22.23	22.45	19	20.24	20.69
20	**25.15**	**26.32**	20	20.24	20.98	20	20.73	20.83
21	24.63	**25.02**	21	19.92	21.25	21	19.19	19.89
22	20.73	20.22	22	23.76	24.53	22	19.43	19.98
23	20.40	19.32	23	19.67	20.48	23	20.90	21.31
24	20.00	20.45	24	19.43	19.69	24	21.65	21.86
25	**25.06**	**25.55**	25	22.32	22.51	25	22.49	22.06
26	**25.85**	**25.11**	26	22.32	22.53	26	23.59	24.54
27	**26.20**	**25.66**	27	20.73	20.68	27	21.89	22.29
28	24.98	**25.42**	28	21.73	21.65	28	22.40	22.14
29	19.67	20.08	29	22.15	22.18	29	23.42	22.75
30	22.90	22.14	30	21.31	22.45	30	24.37	23.88
			31	**25.24**	**26.11**	31	21.06	21.38

DEEP CREEK TEMPERATURE ENHANCEMENT PLAN

SANG RUN TEMPERATURE EXCEEDANCES

TABLE C-2

Summary of Temperature Excursions
June 1, 2007 to August 31, 2007

Date	Duration	Max. Temp (C)	Cause	Remarks
JUNE 2007				
6/9/07	4 hrs. 10 min.	26.4	Model uncertainty	The protocol was conducted, and did not require a release on this day.
6/10/07	1 hr.	25.42	Model uncertainty	A one hour temperature release was made on this day in accordance with the protocol from 14:30 to 15:30.
6/12/07	2 hrs. 20 min.	25.29	Model uncertainty	The protocol was conducted, and did not require a release on this day.
6/17/07	50 min.	25.72	Model uncertainty	Based on the results of the protocol at 14:00, a release was mandated starting no later than 14:30 for one hour. A temperature release was made on this day in accordance with the protocol from 14:00 to 15:00.
6/20/07	1hr. 50 min.	26.32	Model uncertainty	Based on the results of the protocol at 15:00, a release was mandated starting no later than 15:30 for one hour. A temperature release was made on this day in accordance with the protocol from 15:30 to 16:30 pm.
6/21/07	10 min	25.02	Model uncertainty	The protocol was conducted, and did not require a release on this day.
6/25/07	3 hrs. 10 min.	25.55	Model uncertainty	The protocol was conducted, and did not require a release on this day.
6/26/07	20 min.	25.11	Model uncertainty	A temperature release was made on this day in accordance with the protocol from 12:30 to 14:30.
27/07	50 min.	25.66	Model uncertainty	A temperature release was made on this day in accordance with the protocol from 12:30 to 14:30.
6/28/07	50 min.	25.42	Model uncertainty	A one hour temperature release was made on this day in accordance with the protocol from 14:30 to 15:30.
JULY 2007				
7/8/07	4 hrs.	25.96	(1) Model uncertainty	The protocol was conducted, and did not require a release on this day.
7/17/07	1 hr. 10 min.	25.13	(1) Model uncertainty	The protocol was conducted, and did not require a release on this day.
7/31/05	2 hrs.	26.11	(1) Model uncertainty	The protocol was conducted, and did not require a release on this day.
AUGUST 2007				
8/2/05	1hr. 10 min.	25.84	(1) Model uncertainty	A two hour temperature enhancement release was made beginning at 12:30 per the protocol.
8/9/05	1 hr.	25.44	(1) Model uncertainty	The protocol was conducted, and did not require a release on this day.

Category (1) Completed established protocol; temperature exceeded 25° C.

2007 TEMPERATURE ENHANCEMENT RELEASES

TABLE C-3

2007 DATES & TIMES OF TEMPERATURE ENHANCEMENT RELEASES			
DATE	START TIME	STOP TIME	RIVER FLOW (CFS)
June 2, 2007	1220	1323	54
June 7, 2007	1415	1520	62
June 10, 2007	1410	1530	43
June 13, 2007	1401	1505	43
June 17, 2007	1400	1500	32
June 20, 2007	1525	1630	30
June 26, 2007	1227*	1430	21
June 27, 2007	1229	1433*	20
June 28, 2007	1400	1507	19
July 10, 2007	1230	1430	80
August 1, 2007	1235*	1435*	82
August 2, 2007	1552	1716	82

TABLE C-4

2007 COMBINED TEMPERATURE ENHANCEMENT & WHITEWATER RELEASES		
DATE	START TIME	STOP TIME
June 8, 2007	1100	1430
June 18, 2007	1100	1400
June 30, 2007	1100	1430
August 3, 2007	1059	1400*
August 4, 2007	0958	1400

*Estimated from generation – not logged.

DEEP CREEK DAILY TEMPERATURE PLAN SHEETS

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

80 = CFS River Flow at Oakland June 1, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	[illegible]	Check Again at 1200
	(23 to 25.4)	
1200	[illegible]	Check Again at 1400
	(23 to 25.3)	
1400	15.88	No Further Predictions Necessary Today
	(23 to 25.2)	
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	SHWRS	Cloud Cover, Elkins WV
T7	18.42	River Temp Sang Run @700		
T9	18.66	River Temp Sang Run @900		
T11	19.96	River Temp Sang Run @1100		
T12	20.94	River Temp Sang Run @1200		
T14	16.20	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	80.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

54 = CFS River Flow at Oakland June 2, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	[illegible]	Check Again at 1200
	(23 to 25.4)	
1200	25.47	Release ASAP - not later than 1230 for 1 hour
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	28.89	Air Temp, Elkins WV - Degree C	84	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.22	River Temp Sang Run @700		
T9	18.38	River Temp Sang Run @900		
T11	19.89	River Temp Sang Run @1100		
T12	21.49	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	54.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

48 = CFS River Flow at Oakland June 3, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.39	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	21.11	Air Temp, Elkins WV - Degree C	70	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.60	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	48.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

80 = CFS River Flow at Oakland June 4, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.09	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	24.44	Air Temp, Elkins WV - Degree C	76	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	17.66	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	80.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

95 = CFS River Flow at Oakland June 5, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	18.99	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	20.00	Air Temp, Elkins WV - Degree C	68	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.11	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	95.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

66 = CFS River Flow at Oakland June 6, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.80	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	22.78	Air Temp, Elkins WV - Degree C	73	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	16.74	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	66.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

62 = CFS River Flow at Oakland June 7, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	[illegible]	Check Again at 1200
	(23 to 25.4)	
1200	[illegible]	Check Again at 1400
	(23 to 25.3)	
1400	**25.62**	Release ASAP - not later than 1430 for 1 hour
	(23 to 25.2)	
1500	--	--

Tair °C	29.44	Air Temp, Elkins WV - Degree C	85	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	14.94	River Temp Sang Run @700		
T9	15.10	River Temp Sang Run @900		
T11	16.89	River Temp Sang Run @1100		
T12	18.48	River Temp Sang Run @1200		
T14	22.21	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	62.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

48 = CFS River Flow at Oakland June 8, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.1	Check Again at 0900
	(23 to 26.4)	
0900	25.6	Check Again at 1100
	(23 to 25.9)	
1100	**26.36**	Release at 1230 for 2 Hours
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	35.00	Air Temp, Elkins WV - Degree C	95	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	17.53	River Temp Sang Run @700		
T9	17.96	River Temp Sang Run @900		
T11	19.66	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	48.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

43 = CFS River Flow at Oakland June 9, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	24.07	Check Again at 0900
	(23 to 26.4)	
0900	**22.95**	No Further Predictions Necessary Today
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	VARCLDY	Cloud Cover, Elkins WV
T7	18.73	River Temp Sang Run @700		
T9	18.79	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	43.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

43 = CFS River Flow at Oakland June 10, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	24.3	Check Again at 0900
	(23 to 26.4)	
0900	25.0	Check Again at 1100
	(23 to 25.9)	
1100	24.6	Check Again at 1200
	(23 to 25.4)	
1200	25.0	Check Again at 1400
	(23 to 25.3)	
1400	**25.53**	Release ASAP - not later than 1430 for 1 hour
	(23 to 25.2)	
1500	--	--

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	16.29	River Temp Sang Run @700		
T9	16.60	River Temp Sang Run @900		
T11	18.48	River Temp Sang Run @1100		
T12	19.55	River Temp Sang Run @1200		
T14	22.95	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	43.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

33 = CFS River Flow at Oakland **June 11, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Check Again at 0900
0900	[illegible] (23 to 25.9)	Check Again at 1100
1100	[illegible] (23 to 25.4)	Check Again at 1200
1200	[illegible] (23 to 25.3)	Check Again at 1400
1400	17.78 (23 to 25.2)	No Further Predictions Necessary Today
1500	--	--

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	15.96	River Temp Sang Run @700		
T9	16.30	River Temp Sang Run @900		
T11	18.27	River Temp Sang Run @1100		
T12	19.74	River Temp Sang Run @1200		
T14	17.28	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	33.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

29 = CFS River Flow at Oakland June 12, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[redacted]	Check Again at 0900
	(23 to 26.4)	
0900	[redacted]	Check Again at 1100
	(23 to 25.9)	
1100	[redacted]	Check Again at 1200
	(23 to 25.4)	
1200	[redacted]	Check Again at 1400
	(23 to 25.3)	
1400	[redacted]	Check Again at 1500
	(23 to 25.2)	
1500	[redacted]	Check Again Tomorrow at 0700

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	16.14	River Temp Sang Run @700		
T9	16.25	River Temp Sang Run @900		
T11	18.60	River Temp Sang Run @1100		
T12	20.08	River Temp Sang Run @1200		
T14	22.45	River Temp Sang Run @1400		
T15	23.61	River Temp Sang Run @1500		
Q	29.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

43 = CFS River Flow at Oakland June 13, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	24.08	Check Again at 0900
	(23 to 26.4)	
0900	24.08	Check Again at 1100
	(23 to 25.9)	
1100	24.08	Check Again at 1200
	(23 to 25.4)	
1200	24.5	Check Again at 1400
	(23 to 25.3)	
1400	**25.48**	Release ASAP - not later than 1430 for 1 hour
	(23 to 25.2)	
1500	--	--

Tair °C	26.11	Air Temp, Elkins WV - Degree C	79	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.14	River Temp Sang Run @700		
T9	18.40	River Temp Sang Run @900		
T11	20.28	River Temp Sang Run @1100		
T12	21.45	River Temp Sang Run @1200		
T14	23.67	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	43.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

62 = CFS River Flow at Oakland June 14, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.25	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.55	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	62.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

60 = CFS River Flow at Oakland June 15, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.95	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	22.78	Air Temp, Elkins WV - Degree C	73	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	HAZE	Cloud Cover, Elkins WV
T7	16.47	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	60.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

38 = CFS River Flow at Oakland June 16, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.16	Check Again at 0900
	(23 to 26.4)	
0900	23.17	Check Again at 1100
	(23 to 25.9)	
1100	24.15	Check Again at 1200
	(23 to 25.4)	
1200	25.75	Check Again at 1400
	(23 to 25.3)	
1400	25.49	Check Again at 1500
	(23 to 25.2)	
1500	24.98	Check Again Tomorrow at 0700

Tair °C	27.78	Air Temp, Elkins WV - Degree C	82	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	HAZE	Cloud Cover, Elkins WV
T7	15.35	River Temp Sang Run @700		
T9	15.70	River Temp Sang Run @900		
T11	17.55	River Temp Sang Run @1100		
T12	18.49	River Temp Sang Run @1200		
T14	21.80	River Temp Sang Run @1400		
T15	23.08	River Temp Sang Run @1500		
Q	38.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

32 = CFS River Flow at Oakland June 17, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	24.00	Check Again at 0900
	(23 to 26.4)	
0900	25.71	Check Again at 1100
	(23 to 25.9)	
1100	25.07	Check Again at 1200
	(23 to 25.4)	
1200	25.41	Check Again at 1400
	(23 to 25.3)	
1400	**25.68**	Release ASAP - not later than 1430 for 1 hour
	(23 to 25.2)	
1500	--	--

Tair °C	30.00	Air Temp, Elkins WV - Degree C	86	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	16.07	River Temp Sang Run @700		
T9	16.29	River Temp Sang Run @900		
T11	18.32	River Temp Sang Run @1100		
T12	19.52	River Temp Sang Run @1200		
T14	22.67	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	32.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

27 = CFS River Flow at Oakland June 18, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.40	Check Again at 0900
	(23 to 26.4)	
0900	25.7	Check Again at 1100
	(23 to 25.9)	
1100	**26.69**	Release at 1230 for 2 Hours
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	31.67	Air Temp, Elkins WV - Degree C	89	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.27	River Temp Sang Run @700		
T9	18.55	River Temp Sang Run @900		
T11	20.84	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	27.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

24 = CFS River Flow at Oakland June 19, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.10	Check Again at 0900
	(23 to 26.4)	
0900	24.31	Check Again at 1100
	(23 to 25.9)	
1100	24.02	Check Again at 1200
	(23 to 25.4)	
1200	24.56	Check Again at 1400
	(23 to 25.3)	
1400	24.01	Check Again at 1500
	(23 to 25.2)	
1500	24.12	Check Again Tomorrow at 0700

Tair °C	30.56	Air Temp, Elkins WV - Degree C	87	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.55	River Temp Sang Run @700		
T9	19.11	River Temp Sang Run @900		
T11	20.10	River Temp Sang Run @1100		
T12	21.00	River Temp Sang Run @1200		
T14	22.27	River Temp Sang Run @1400		
T15	22.89	River Temp Sang Run @1500		
Q	24.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

30 = CFS River Flow at Oakland June 20, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Check Again at 0900
0900	[illegible] (23 to 25.9)	Check Again at 1100
1100	[illegible] (23 to 25.4)	Check Again at 1200
1200	[illegible] (23 to 25.3)	Check Again at 1400
1400	[illegible] (23 to 25.2)	Check Again at 1500
1500	**25.73**	Release ASAP - not later than 1530 for 1 hour

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	HAZE	Cloud Cover, Elkins WV
T7	19.18	River Temp Sang Run @700		
T9	19.21	River Temp Sang Run @900		
T11	20.57	River Temp Sang Run @1100		
T12	21.51	River Temp Sang Run @1200		
T14	23.41	River Temp Sang Run @1400		
T15	24.68	River Temp Sang Run @1500		
Q	30.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

43 = CFS River Flow at Oakland **June 21, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.57	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	26.67	Air Temp, Elkins WV - Degree C	80	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	16.18	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	43.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

35 = CFS River Flow at Oakland June 22, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.58	No Further Predictions Necessary Today
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	23.89	Air Temp, Elkins WV - Degree C	75	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	VARCLDY	Cloud Cover, Elkins WV
T7	17.93	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	35.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

43 = CFS River Flow at Oakland June 23, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	[illegible]	Check Again at 1200
	(23 to 25.4)	
1200	[illegible]	Check Again at 1400
	(23 to 25.3)	
1400	17.02	No Further Predictions Necessary Today
	(23 to 25.2)	
1500	--	--

Tair °C	24.44	Air Temp, Elkins WV - Degree C	76	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	15.40	River Temp Sang Run @700		
T9	15.62	River Temp Sang Run @900		
T11	17.42	River Temp Sang Run @1100		
T12	18.44	River Temp Sang Run @1200		
T14	16.23	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	43.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

27 = CFS River Flow at Oakland June 24, 2007

Print info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	**22.96** (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	27.22	Air Temp, Elkins WV - Degree C	81	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	RAIN	Cloud Cover, Elkins WV
T7	15.27	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	27.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

22 = CFS River Flow at Oakland June 25, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Check Again at 0900
0900	[illegible] (23 to 25.9)	Check Again at 1100
1100	[illegible] (23 to 25.4)	Check Again at 1200
1200	[illegible] (23 to 25.3)	Check Again at 1400
1400	[illegible] (23 to 25.2)	Check Again at 1500
1500	[illegible]	Check Again Tomorrow at 0700

Tair °C	27.22	Air Temp, Elkins WV - Degree C	81	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	RAIN	Cloud Cover, Elkins WV
T7	17.20	River Temp Sang Run @700		
T9	17.55	River Temp Sang Run @900		
T11	18.72	River Temp Sang Run @1100		
T12	19.64	River Temp Sang Run @1200		
T14	22.39	River Temp Sang Run @1400		
T15	23.52	River Temp Sang Run @1500		
Q	22.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

21 = CFS River Flow at Oakland June 26, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.41	Check Again at 0900
	(23 to 26.4)	
0900	25.9	Check Again at 1100
	(23 to 25.9)	
1100	**26.52**	Release at 1230 for 2 Hours
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	30.56	Air Temp, Elkins WV - Degree C	87	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.20	River Temp Sang Run @700		
T9	19.20	River Temp Sang Run @900		
T11	21.30	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	21.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

20 = CFS River Flow at Oakland June 27, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.10	Check Again at 0900
	(23 to 26.4)	
0900	25.51	Check Again at 1100
	(23 to 25.9)	
1100	**26.80**	Release at 1230 for 2 Hours
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	30.00	Air Temp, Elkins WV - Degree C	86	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.20	River Temp Sang Run @700		
T9	19.56	River Temp Sang Run @900		
T11	21.81	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	20.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

19 = CFS River Flow at Oakland June 28, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.1	Check Again at 0900
	(23 to 26.4)	
0900	25.4	Check Again at 1100
	(23 to 25.9)	
1100	25.0	Check Again at 1200
	(23 to 25.4)	
1200	25.6	Check Again at 1400
	(23 to 25.3)	
1400	26.03	Release ASAP - not later than 1430 for 1 hour
	(23 to 25.2)	
1500	--	--

Tair °C	27.78	Air Temp, Elkins WV - Degree C	82	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.04	River Temp Sang Run @700		
T9	19.52	River Temp Sang Run @900		
T11	20.16	River Temp Sang Run @1100		
T12	21.25	River Temp Sang Run @1200		
T14	23.86	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	19.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

24 = CFS River Flow at Oakland June 29, 2007

Print info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	22.58	No Further Predictions Necessary Today
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	23.89	Air Temp, Elkins WV - Degree C	75	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.39	River Temp Sang Run @700		
T9	19.57	River Temp Sang Run @900		
T11	19.87	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	24.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

64 = CFS River Flow at Oakland June 30, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	25.50	Release at 1230 for 2 Hours
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	27.22	Air Temp, Elkins WV - Degree C	81	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	18.48	River Temp Sang Run @700		
T9	18.77	River Temp Sang Run @900		
T11	20.19	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	64.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

36 = CFS River Flow at Oakland **July 1, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[redacted] (23 to 26.4)	Check Again at 0900
0900	[redacted] (23 to 25.9)	Check Again at 1100
1100	[redacted] (23 to 25.4)	Check Again at 1200
1200	[redacted] (23 to 25.3)	Check Again at 1400
1400	[redacted] (23 to 25.2)	Check Again at 1500
1500	[redacted]	Check Again Tomorrow at 0700

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	17.84	River Temp Sang Run @700		
T9	17.67	River Temp Sang Run @900		
T11	19.37	River Temp Sang Run @1100		
T12	20.64	River Temp Sang Run @1200		
T14	21.90	River Temp Sang Run @1400		
T15	22.98	River Temp Sang Run @1500		
Q	36.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

24 = CFS River Flow at Oakland July 2, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Check Again at 0900
0900	[illegible] (23 to 25.9)	Check Again at 1100
1100	[illegible] (23 to 25.4)	Check Again at 1200
1200	[illegible] (23 to 25.3)	Check Again at 1400
1400	18.10 (23 to 25.2)	No Further Predictions Necessary Today
1500	--	--

Tair °C	26.11	Air Temp, Elkins WV - Degree C	79	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	16.36	River Temp Sang Run @700		
T9	16.02	River Temp Sang Run @900		
T11	17.79	River Temp Sang Run @1100		
T12	19.10	River Temp Sang Run @1200		
T14	17.19	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	24.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

18 = CFS River Flow at Oakland July 3, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible]	Check Again at 0900
	(23 to 26.4)	
0900	[illegible]	Check Again at 1100
	(23 to 25.9)	
1100	22.79	No Further Predictions Necessary Today
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	MOCLDY	Cloud Cover, Elkins WV
T7	15.66	River Temp Sang Run @700		
T9	16.14	River Temp Sang Run @900		
T11	17.43	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	18.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

16 = CFS River Flow at Oakland July 4, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25.1 (23 to 26.4)	Check Again at 0900
0900	24.1 (23 to 25.9)	Check Again at 1100
1100	23.4 (23 to 25.4)	Check Again at 1200
1200	23.1 (23 to 25.3)	Check Again at 1400
1400	21.86 (23 to 25.2)	No Further Predictions Necessary Today
1500	--	--

Tair °C	28.89	Air Temp, Elkins WV - Degree C	84	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	17.48	River Temp Sang Run @700		
T9	17.41	River Temp Sang Run @900		
T11	18.54	River Temp Sang Run @1100		
T12	19.28	River Temp Sang Run @1200		
T14	19.83	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	16.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

18 = CFS River Flow at Oakland July 5, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	24.1	Check Again at 0900
	(23 to 26.4)	
0900	22.65	No Further Predictions Necessary Today
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	23.89	Air Temp, Elkins WV - Degree C	75	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.80	River Temp Sang Run @700		
T9	18.55	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	18.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

1540 = CFS River Flow at Oakland July 6, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.95 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	26.11	Air Temp, Elkins WV - Degree C	79	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	19.04	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	1540.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

373 = CFS River Flow at Oakland July 7, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	18.02	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	373.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

178 = CFS River Flow at Oakland July 8, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	33.89	Air Temp, Elkins WV - Degree C	93	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	18.94	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	178.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

115 = CFS River Flow at Oakland **July 9, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	25	Temperature Plan not Required Today - Flow Exceeds 100 CFS
	(23 to 26.4)	
0900	--	--
	(23 to 25.9)	
1100	--	--
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	33.89	Air Temp, Elkins WV - Degree C	93	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	19.44	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	115.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

80 = CFS River Flow at Oakland July 10, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	24.01	Check Again at 0900
	(23 to 26.4)	
0900	24.01	Check Again at 1100
	(23 to 25.9)	
1100	26.01	Release at 1230 for 2 Hours
	(23 to 25.4)	
1200	--	--
	(23 to 25.3)	
1400	--	--
	(23 to 25.2)	
1500	--	--

Tair °C	32.78	Air Temp, Elkins WV - Degree C	91	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.25	River Temp Sang Run @700		
T9	20.40	River Temp Sang Run @900		
T11	21.25	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	80.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

80 = CFS River Flow at Oakland July 11, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Check Again at 0900
0900	[illegible] (23 to 25.9)	Check Again at 1100
1100	[illegible] (23 to 25.4)	Check Again at 1200
1200	[illegible] (23 to 25.3)	Check Again at 1400
1400	[illegible] (23 to 25.2)	Check Again at 1500
1500	22.87	No Further Predictions Necessary Today

Tair °C	27.22	Air Temp, Elkins WV - Degree C	81	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	21.37	River Temp Sang Run @700		
T9	21.47	River Temp Sang Run @900		
T11	21.64	River Temp Sang Run @1100		
T12	21.64	River Temp Sang Run @1200		
T14	21.97	River Temp Sang Run @1400		
T15	22.11	River Temp Sang Run @1500		
Q	80.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

367 = CFS River Flow at Oakland **July 12, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.51 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	24.44	Air Temp, Elkins WV - Degree C	76	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	MOCLDY	Cloud Cover, Elkins WV
T7	19.90	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	367.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

156 = CFS River Flow at Oakland **July 13, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.02 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	23.89	Air Temp, Elkins WV - Degree C	75	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.05	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	156.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

106 = CFS River Flow at Oakland **July 14, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[redacted] (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	[redacted] (23 to 25.9)	--
1100	[redacted] (23 to 25.4)	--
1200	[redacted] (23 to 25.3)	--
1400	[redacted] (23 to 25.2)	--
1500	[redacted]	--

Tair °C	30.56	Air Temp, Elkins WV - Degree C	87	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	17.33	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	106.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

82 = CFS River Flow at Oakland July 15, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.20 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	27.78	Air Temp, Elkins WV - Degree C	82	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.66	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	82.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

233 = CFS River Flow at Oakland **July 16, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.72 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	27.22	Air Temp, Elkins WV - Degree C	81	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.90	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	233.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

156 = CFS River Flow at Oakland **July 17, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.99 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	32.22	Air Temp, Elkins WV - Degree C	90	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.89	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	156.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

106 = CFS River Flow at Oakland **July 18, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.86 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	30.00	Air Temp, Elkins WV - Degree C	86	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.62	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	106.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

101 = CFS River Flow at Oakland **July 19, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.78 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	SHWRS	Cloud Cover, Elkins WV
T7	20.18	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	101.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

373 = CFS River Flow at Oakland July 20, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.08 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	22.22	Air Temp, Elkins WV - Degree C	72	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTSUNY	Cloud Cover, Elkins WV
T7	19.18	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	373.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

218 = CFS River Flow at Oakland **July 21, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.24 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	23.89	Air Temp, Elkins WV - Degree C	75	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	HAZE	Cloud Cover, Elkins WV
T7	18.05	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	218.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

133 = CFS River Flow at Oakland **July 22, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.07 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	24.44	Air Temp, Elkins WV - Degree C	76	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	HAZE	Cloud Cover, Elkins WV
T7	17.02	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	133.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

93 = CFS River Flow at Oakland **July 23, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.11 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	24.44	Air Temp, Elkins WV - Degree C	76	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	16.95	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	93.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

75 = CFS River Flow at Oakland July 24, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.31 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	22.78	Air Temp, Elkins WV - Degree C
CCF	100	Cloud Cover Factor, Elkins WV
T7	16.99	River Temp Sang Run @700
T9	--	River Temp Sang Run @900
T11	--	River Temp Sang Run @1100
T12	--	River Temp Sang Run @1200
T14	--	River Temp Sang Run @1400
T15	--	River Temp Sang Run @1500
Q	75.00	River Flow at Oakland

73	Air Temp, Elkins WV - Degree F
TSTRMS	Cloud Cover, Elkins WV

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

78 = CFS River Flow at Oakland July 25, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.89 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	16.94	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	78.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

90 = CFS River Flow at Oakland July 26, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.81 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	17.61	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	90.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

70 = CFS River Flow at Oakland **July 27, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.97 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.19	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	70.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

272 = CFS River Flow at Oakland July 28, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.91 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.89	Air Temp, Elkins WV - Degree C	84	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.87	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	272.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

145 = CFS River Flow at Oakland **July 29, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.59 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	26.67	Air Temp, Elkins WV - Degree C	80	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.04	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	145.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

175 = CFS River Flow at Oakland **July 30, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.32 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	26.67	Air Temp, Elkins WV - Degree C	80	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.25	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	175.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

109 = CFS River Flow at Oakland July 31, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.96 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.56	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	109.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

82 = CFS River Flow at Oakland **August 1, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	**Deep Creek Action**
0700	(23 to 26.4)	Check Again at 0900
0900	(23 to 25.9)	Check Again at 1100
1100	26.36 (23 to 25.4)	Release at 1230 for 2 Hours
1200	25.99 (23 to 25.3)	--
1400	26.76 (23 to 25.2)	--
1500	--	--

Tair °C	29.44	Air Temp, Elkins WV - Degree C	85	Air Temp, Elkins WV - Degree F
CCF	9	Cloud Cover Factor, Elkins WV	MOSUNNY	Cloud Cover, Elkins WV
T7	19.44	River Temp Sang Run @700		
T9	19.46	River Temp Sang Run @900		
T11	20.88	River Temp Sang Run @1100		
T12	21.64	River Temp Sang Run @1200		
T14	24.45	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	82.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

82 = CFS River Flow at Oakland **August 2, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Check Again at 0900
0900	[illegible] (23 to 25.9)	Check Again at 1100
1100	26.15 (23 to 25.4)	Release at 1230 for 2 Hours
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	30.56	Air Temp, Elkins WV - Degree C	87	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.40	River Temp Sang Run @700		
T9	20.40	River Temp Sang Run @900		
T11	21.75	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	82.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

60 = CFS River Flow at Oakland **August 3, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Check Again at 0900
0900	26.25 (23 to 25.9)	Release at 1100 for 2 Hours
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	31.67	Air Temp, Elkins WV - Degree C	89	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	20.44	River Temp Sang Run @700		
T9	20.64	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	60.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

48 = CFS River Flow at Oakland **August 4, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Check Again at 0900
0900	26.22 (23 to 25.9)	Release at 1100 for 2 Hours
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	32.22	Air Temp, Elkins WV - Degree C	90	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	MOCLDY	Cloud Cover, Elkins WV
T7	20.54	River Temp Sang Run @700		
T9	20.64	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	48.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

41 = CFS River Flow at Oakland **August 5, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Check Again at 0900
0900	(23 to 25.9)	Check Again at 1100
1100	(23 to 25.4)	Check Again at 1200
1200	(23 to 25.3)	Check Again at 1400
1400	22.95 (23 to 25.2)	No Further Predictions Necessary Today
1500	--	--

Tair °C	26.67	Air Temp, Elkins WV - Degree C	80	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	21.15	River Temp Sang Run @700		
T9	21.16	River Temp Sang Run @900		
T11	21.37	River Temp Sang Run @1100		
T12	21.33	River Temp Sang Run @1200		
T14	21.71	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	41.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

241 = CFS River Flow at Oakland **August 6, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	31.11	Air Temp, Elkins WV - Degree C	88	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.65	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	241.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

200 = CFS River Flow at Oakland **August 7, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	31.67	Air Temp, Elkins WV - Degree C	89	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	21.10	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	200.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

121 = CFS River Flow at Oakland August 8, 2007

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	32.78	Air Temp, Elkins WV - Degree C	91	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	21.67	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	121.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER **TEMPERATURE ENHANCEMENT PLAN**

Simulate a Ra

272 = CFS River Flow at Oakland **August 9, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	**Deep Creek Action**
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	30.56	Air Temp, Elkins WV - Degree C	87	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	22.08	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	272.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

233.8510122 = CFS River Flow at Oakland **August 10, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.37 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	26.67	Air Temp, Elkins WV - Degree C	80	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	22.36	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	233.85	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

474.9360423 = CFS River Flow at Oakland **August 11, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.14 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	27.78	Air Temp, Elkins WV - Degree C	82	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	VARCLDY	Cloud Cover, Elkins WV
T7	20.62	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	474.94	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

286.1277195 = CFS River Flow at Oakland **August 12, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	19.93	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	286.13	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

188.2368624 = CFS River Flow at Oakland **August 13, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	29.44	Air Temp, Elkins WV - Degree C	85	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	20.11	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	188.24	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

141.9906013 = CFS River Flow at Oakland **August 14, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	18.98	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	141.99	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

111.1423853 = CFS River Flow at Oakland **August 15, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.65 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTCLDY	Cloud Cover, Elkins WV
T7	18.00	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	111.14	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

93 = CFS River Flow at Oakland **August 16, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Check Again at 0900
0900	22.94 (23 to 25.9)	No Further Predictions Necessary Today
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	31.67	Air Temp, Elkins WV - Degree C	89	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.52	River Temp Sang Run @700		
T9	19.51	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	93.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

197 = CFS River Flow at Oakland **August 17, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	SHWRS	Cloud Cover, Elkins WV
T7	21.02	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	197.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

103 = CFS River Flow at Oakland **August 18, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.73 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	25.56	Air Temp, Elkins WV - Degree C	78	Air Temp, Elkins WV - Degree F
CCF	1	Cloud Cover Factor, Elkins WV	SUNNY	Cloud Cover, Elkins WV
T7	18.91	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	103.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ri

78 = CFS River Flow at Oakland **August 19, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.52 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	23.33	Air Temp, Elkins WV - Degree C	74	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	SHWRS	Cloud Cover, Elkins WV
T7	15.41	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	78.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER **TEMPERATURE ENHANCEMENT PLAN**

Simulate a Ra

70 = CFS River Flow at Oakland **August 20, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.98 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	20.56	Air Temp, Elkins WV - Degree C	69	Air Temp, Elkins WV - Degree F
CCF	64	Cloud Cover Factor, Elkins WV	SHWRS	Cloud Cover, Elkins WV
T7	18.47	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	70.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

1260 = CFS River Flow at Oakland **August 21, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	20.90 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	26.11	Air Temp, Elkins WV - Degree C	79	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	18.53	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	1260.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

1990 = CFS River Flow at Oakland **August 22, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.99 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.63	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	1990.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

745 = CFS River Flow at Oakland **August 23, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.13 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.89	Air Temp, Elkins WV - Degree C	84	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	19.51	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	745.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

448 = CFS River Flow at Oakland **August 24, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	34.44	Air Temp, Elkins WV - Degree C	94	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.43	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	448.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

256 = CFS River Flow at Oakland **August 25, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	-- (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	35.56	Air Temp, Elkins WV - Degree C	96	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.67	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	256.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

200 = CFS River Flow at Oakland **August 26, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	21.67 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	25.00	Air Temp, Elkins WV - Degree C	77	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	21.86	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	200.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

168 = CFS River Flow at Oakland **August 27, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.12 (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	20.01	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	168.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

133 = CFS River Flow at Oakland **August 28, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	[illegible] (23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.89	Air Temp, Elkins WV - Degree C	84	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTSUNY	Cloud Cover, Elkins WV
T7	19.80	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	133.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

106 = CFS River Flow at Oakland **August 29, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Temperature Plan not Required Today - Flow Exceeds 100 CFS
0900	(23 to 25.9)	--
1100	(23 to 25.4)	--
1200	(23 to 25.3)	--
1400	(23 to 25.2)	--
1500	--	--

Tair °C	30.00	Air Temp, Elkins WV - Degree C	86	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	PTSUNY	Cloud Cover, Elkins WV
T7	19.98	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	106.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

93 = CFS River Flow at Oakland **August 30, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	22.76 (23 to 26.4)	No Further Predictions Necessary Today
0900	-- (23 to 25.9)	--
1100	-- (23 to 25.4)	--
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	28.33	Air Temp, Elkins WV - Degree C	83	Air Temp, Elkins WV - Degree F
CCF	100	Cloud Cover Factor, Elkins WV	TSTRMS	Cloud Cover, Elkins WV
T7	21.08	River Temp Sang Run @700		
T9	--	River Temp Sang Run @900		
T11	--	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	93.00	River Flow at Oakland		

YOUGHIOGHENY RIVER WATER TEMPERATURE ENHANCEMENT PLAN

Simulate a Ra

85 = CFS River Flow at Oakland **August 31, 2007**

Print Info for file

Time	Predicted Maximum River Water Temperature Degree C	Deep Creek Action
0700	(23 to 26.4)	Check Again at 0900
0900	(23 to 25.9)	Check Again at 1100
1100	20.37 (23 to 25.4)	No Further Predictions Necessary Today
1200	-- (23 to 25.3)	--
1400	-- (23 to 25.2)	--
1500	--	--

Tair °C	27.22	Air Temp, Elkins WV - Degree C	81	Air Temp, Elkins WV - Degree F
CCF	36	Cloud Cover Factor, Elkins WV	HAZE	Cloud Cover, Elkins WV
T7	21.32	River Temp Sang Run @700		
T9	21.32	River Temp Sang Run @900		
T11	18.28	River Temp Sang Run @1100		
T12	--	River Temp Sang Run @1200		
T14	--	River Temp Sang Run @1400		
T15	--	River Temp Sang Run @1500		
Q	85.00	River Flow at Oakland		

APPENDIX D

FLOW BYPASS OPERATION RECORD

TABLE D-1

Youghiogheny River Bypass Flow Provision				
MONTH	**DAY**	**Flow at Oakland**	**Bypass Flow Required**	**% Valve Open**
June	28	19	11	35
July	3	18	12	36
July	4	16	15	40
July	5	18	12	36
September	25	18	12	36
September	26	17	14	39
September	27	16	15	40
October	2	19	11	35
October	3	17	14	39
October	4	16	15	40
October	5	15	17	42
October	6	13	20	47
October	7	13	20	47
October	8	12	21	48
October	9	12	21	48
October	10	15	17	42
October	11	16	15	40

USGS PROVISIONAL WATER DATA FOR THE OAKLAND GAGE

GAGE NO. 03075500

FROM JANUARY 1, 2007 THROUGH DECEMBER 31, 2007

TABLE D-_

USGS - Oakland Gage No. 03075500

Discharge, cubic feet per second (Mean)

Month / Day of Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	268	135	566	205	184	80	36	82	80	22	58	190
2	365	142	2660	323	171	54	24	82	64	19	52	162
3	295	139	3260	218	162	48	18	60	56	17	45	2278
4	254	106	1420	190	142	80	16	48	48	16	41	994
5	229	109	910	184	124	95	18	41	46	15	38	641
6	317	106	625	171	130	66	1540	241	41	13	60	454
7	268	123	437	162	106	62	373	200	36	13	103	337
8	542	126	503	156	95	48	178	121	33	12	70	383
9	801	120	317	145	88	43	115	272	35	12	64	894
10	591	118	346	142	85	43	80	234	32	15	73	3840
11	397	118	1810	133	78	33	80	475	35	16	64	2500
12	317	115	1410	194	70	29	367	286	139	18	58	1250
13	903	112	0	383	66	43	156	188	62	22	88	916
14	1060	123	1710	297	58	62	106	142	39	19	142	3030
15	1720	129	1860	590	54	60	82	111	38	17	759	1250
16	1640	126	1710	1750	52	38	233	93	56	18	616	1050
17	1130	115	1370	1000	197	32	156	197	38	19	352	994
18	780	118	963	1430	98	27	106	103	32	18	301	647
19	625	109	726	1090	590	24	101	78	27	17	233	483
20	466	101	1370	894	268	30	373	70	25	21	197	437
21	306	616	1320	673	207	43	218	1260	24	26	178	393
22	306	1220	940	501	165	35	133	1990	21	18	156	328
23	295	699	823	388	142	43	93	745	20	15	151	323
24	233	384	837	319	124	27	75	448	20	29	121	603
25	217	340	859	284	133	22	78	256	18	431	109	437
26	145	1870	699	248	101	21	90	200	17	171	106	383
27	193	1040	480	256	80	20	70	168	16	328	660	342
28	190	699	410	280	70	19	272	133	98	156	431	284
29	151		306	237	68	24	145	106	68	115	301	466
30	158		250	207	62	64	175	93	30	82	233	431
31	135		225		54		109	85		70		415

The above data obtained from the automated U.S. Geological Survey database have not received Director's approval and as such are provisional and subject to revision. The data are released on the condition that neither the USGS nor the United States Government may be held liable for any damages resulting from its use.

APPENDIX E

RECORD OF
DISSOLVED OXYGEN MONITORING

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

DATE JUNE 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM FROM WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEV	OPERATI TAILRAC ELEV
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
6-1	10:30	17.0	8.95	10:35	10.1	8.68	NONE	———	4 OPEN	2021.9	———
6-1	11:30	24.5	7.74	11:33	12.0	9.81	2	11:00 -14:00	4 OPEN	2021.9	2028.0
6-1	14:23	25.7	7.56	14:26	12.8	8.79	NONE	———	4 OPEN	2021.9	———
6-2	13:03	27.4	7.33	13:05	12.3	9.56	2	12:30-13:30	4 OPEN	2021.8	2028.0
6-2	13:54	25.2	7.63	13:57	12.9	8.88	NONE	———	4 OPEN	2021.8	———
6-4	10:41	21.8	8.16	10:52	10.1	8.84	None	———	4 OPEN	2022.0	———
6-4	11:40	22.2	8.08	11:51	11.7	9.48	2	11:00 - 14:00	4 open	2022.0	2028.0
6-4	14:30	20.8	7.94	14:41	12.2	8.80	None	———	" "	2022.0	———
6-7	14:39	24.5	7.73	14:41	12.7	9.27	2	14:20 -15:20	4 OPEN	2021.8	2028.0
6-8	10:43	25.6	6.81	10:51	11.1°	7.78	NONE	———	4 open	2021.8	———
6-8	11:35	26.1	7.52	11:48	13.3	9.78	2	11:00-14:00	4 open	2021.8	20280
6-8	14:50	28.3	7.22	14:52	13.7	9.00	NONE	———	4 OPEN	2021.8	———
6-10	14:45	24.5	7.74	14:47	12.3	9.42	2	14:15 - 15:30	4 OPEN	2021.7	2028.0
6-11	10:37	24.7	7.71	10:50	10.5	8.58	None	———	4 open	2021.6	———
6-11	11:47	25.4	7.49	12:00	13.1	9.31	2	11:00-14:00	4 open	2021.6	2028.0
6-11	14:30	25.0	7.67	14:32	13.6	8.30	NONE	———	4 OPEN	2021.6	———
6-13	14:30	25.9	7.53	14:42	12.8	9.00	2	14:00 - 15:00	4 open	2021.7	2028.0
6-15	10:31	19.8	8.42	10:43	10.6	8.12	NONE	———	4 open	2021.8	———
6-15	11:28	19.3	6.31	11:38	13.6	8.93	2	11:00 - 14:00	4 open	2021.8	2028.0
6-15	14:20	20.7	8.32	14:29	14.1	7.53	NONE	———	4 open	2021.8	———

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

DATE JUNE 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM FROM WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEV	OPERATI TAILRAC ELEV
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
6-17-2007	14:30	24.8	7.71	14:41	12.31	9.3	2	14:00-15:00	4 OPEN	2021.7	2027.6
6-18	10:34	26.7	7.43	10:36	11.5	7.54	NONE	———	4 OPEN	2021.6	———
6-18	11:32	26.4	7.47	11:34	12.9	9.02	2	11:00 - 14:00	4 OPEN	2021.6	2028.0
6-18	14:33	27.1	7.37	14:35	13.6	7.74	NONE	———	4 OPEN	2021.6	———
6-22	10:28	23.3	7.71	10:37	10.6	6.87	NONE	———	4 OPEN	2021.6	———
6-22	11:16	20.6	8.33	11:18	12.1	8.09	2	11:00 - 14:00	4 OPEN	2021.7	2028.0
6-22	14:33	23.1	7.93	14:35	14.3	7.53	NONE	———	4 OPEN	2021.7	———
6-23	10:30	21.5	8.10	10:42	10.6	6.57	NONE	———	4 OPEN	2021.7	———
6-23	11:28	22.0	8.10	11:36	12.9	8.57	2	11:00 - 14:00	4 OPEN	2021.7	2028.0
6-23	14:27	22.2	8.09	14:33	13.4	7.62	NONE	———	4 OPEN	2021.7	———
6-26	12:00	27.8	7.00	12:02	12.0	6.41	NONE	———	4 OPEN	2021.6	———
6-26	13:04	26.8	7.42	13:06	13.6	8.80	2	12:30 - 14:30	4 OPEN	2021.6	2027.9
6-26	14:50	27.1	7.38	14:52	14.1	7.87	NONE	———	4 OPEN	2021.6	———
6-27	12:03	27.3	7.34	12:05	11.6	7.06	NONE	———	4 OPEN	2021.6	———
6-27	12:58	28.2	7.23	13:00	13.3	8.88	2	12:30 - 14:30	4 OPEN	2021.6	2028.0
6-27	14:50	31.8	6.79	14:52	15.2	7.72	NONE	———	4 OPEN	2021.6	———
6-28	14:20	25.8	7.55	14:29	13.6	7.53	2	14:00 - 15:00	4 OPEN	2021.6	2028.0
6-29	11:20	24.2	7.76	11:30	13.1	8.24	2	11:00 - 14:00	4 OPEN	2021.7	2028.0
6-29	14:16	23.9	7.82	14:18	14.2	7.50	NONE	———	4 OPEN	2021.8	———
6-30	10:31	24.1	7.79	10:43	11.0	6.33	NONE	———	4 OPEN	2021.8	———

(Instrument Calibrated to 2000 ft. MSL)

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

DATE JUNE & JULY 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM FROM WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEV	OPERATI TAILRAC ELEV
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
6/30	11:35	24.5	7.66	11:47	13.5	8.17	2	11:00-14:00	4 open	2021.8	2028.0
6/30	14:33	23.9	7.83	14:41	13.7	7.22	0	———	4open	2021.8	———
7-2	10:32	22.4	8.06	10:35	11.2	5.82	0	———	4 OPEN	2021.6	———
7-2	11:36	22.6	7.99	11:47	13.3	7.94	2	11:00-14:00	4 OPEN	2021.6	2028.0
7-2	14:17	21.4	8.22	14:30	14.4	6.98	0	———	4open	2021.6	———
7-7	10:40	24.5	7.71	10:51	10.9	5.60	0	———	4open	2022.7	———
7-7	11:45	23.2	7.92	11:53	13.1	6.83	2	11:00-14:00	4open	2022.7	2026.1
7-7	14:23	24.6	7.68	14:35	13.4	5.90	0	———	4open	2022.7	———
7-9	10:37	26.5	7.46	10:39	11.6	5.15	0	———	4 OPEN	2022.0	———
7-9	11:31	26.9	7.41	11:33	14.0	7.74	2	11:00-14:00	4 OPEN	2022.0	2028.0
7-9	14:33	27.0	7.38	14:35	15.2	6.93	0	———	4 OPEN	2022.0	———
7-10	13:05	26.1	7.51	13:13	14.4	7.76	2	12:30-14:30	4open	2021.9	2028.0
7-10	14:38	27.2	7.21	14:50	14.8	6.56	0	———	4open	2021.9	———
7-13	10:29	21.7	8.16	10:32	11.1	5.04	0	———	4 OPEN	2022.1	———
7-13	11:31	21.8	8.13	11:33	14.8	7.37	2	11:00-14:00	4 OPEN	2022.1	2028.0
7-13	14:34	22.3	8.06	14:36	14.9	6.29	0	———	4 OPEN	2022.1	———
7-14	10:33	23.7	7.83	10:47	12.1	4.74	0	———	4open	2022.0	———
7-14	11:38	20.7	8.32	11:45	14.3	7.39	2	1100-14:00	4open	2022.0	2028.0
7-14	14:22	23.9	7.81	14:33	14.9	5.98	0	———	4open	2022.0	———
7-15	10:34	22.3	8.04	10:40	11.6	4.77	0	———	4 open	2022.6	———

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

DATE JULY 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM FROM WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEV	OPERATI TAILRAC ELEV
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
7-16	11:27	22.8	7.99	11:29	14.6	6.76	2	11:00 -14:00	4 OPEN	2022.6	2027.8
7-16	14:35	23.8	7.75	14:40	15.2	5.78	0	—	4 OPEN	2022.6	—
7-20	10:25	21.9	7.88	10:30	11.5	4.18	0	—	4 OPEN	2022.9	—
7-20	11:28	18.9	8.62	11:30	13.3	5.17	2	11:00-14:00	4 OPEN	2022.9	2026.3
7-20	14:25	21.0	8.21	14:30	13.9	4.46	0	—	4 open	2022.9	—
7-21	10:28	20.9	8.28	10:31	11.2	3.95	0	—	4 OPEN	2022.3	—
7-21	11:47	21.1	8.27	11:49	14.7	6.33	2	11:00 - 14:00	4 OPEN	2022.3	2028.0
7-21	14:30	22.8	8.09	14:33	15.6	5.14	0	—	4 OPEN	2022.2	—
7-23	10:28	19.2	8.57	10:30	12.1	4.01	0	—	4 OPEN	2021.9	—
7-23	11:30	19.2	8.57	11:32	14.8	6.05	2	11:00 - 14:00	4 OPEN	2021.9	2027.7
7-23	14:30	21.9	8.12	14:32	15.3	4.64	0	—	4 OPEN	2021.9	—
7-26	13:31	23.3	7.92	13:34	12.1	4.78	0	—	2 CLOSED 2 6" OPEN	2021.9	—
7-26	14:29	23.5	7.88	14:31	14.8	7.14	2	14:00 - 17:00	2 CLOSED 2 6" OPEN	2021.9	2028.4
7-27	10:26	21.7	8.13	10:35	11.9	3.60	0	—	2 closed 2 6" open	2021.9	—
7-27	11:46	21.9	7.99	11:53	14.6	6.93	2	11:00 - 14:00	2 - closed 2-6" open	2021.9	2028.4
7-27	14:28	21.3	8.23	14:30	15.0	4.48	0	—	2-CLOSED 2-6" OPEN	2021.9	—
7-28	10:29	23.5	7.88	10:31	12.9	3.67	0	—	2-CLOSED 2-6" OPEN	2022.4	—
7-28	11:40	23.6	7.87	11:42	14.1	6.99	2	11:00 - 17:00	2-CLOSED 2-6" OPEN	2022.4	2028.4
07-30	10:31	22.7	8.00	10:39	11.5	3.50	0	—	2 - closed 2-6" open	2022.2	—
7-30	11:45	22.9	7.93	11:53	15.5	7.03	2	11:00 - 14:00	2-closed 2-6" open	2022.2	2028.4

(Instrument Calibrated to 2000 ft. MSL)

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

DATE JULY AUG 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM FROM WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEV	OPERATI TAILRAC ELEV
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
07/30	14:40	25.4	7.58	14:51	16.3	4.62	0	——	2-closed 2-6" open	2022.2	——
8-01	13:10	26.1	7.51	13:12	13.9	6.82	2	12:30-14:45	2-closed 2-6" open	2022.0	2028.4
8-02	12:16	26.0	7.51	12:18	12:18	3.78	0	——	2 closed 2 6" open	2021.9	——
8-02	13:01	23.0	7.96	13:03	14:7	6.75	2	12:30-14:30	2 closed 2 6" open	2021.9	2028.4
8-03	10:25	24.9	7.68	10:34	12.0	3.10	0	——	2-closed 2-6" open	2021.8	——
8-03	11:52	25.5	7.46	12:04	15.4	6.76	2	11:00-16:15	2-closed 2-6" open	2021.8	2028.4
8-04	09:36	25.1	7.61	09:38	13.2	3.15	0	——	2-closed 2-6" open	2021.8	——
8-04	10:28	25.7	7.55	10:30	15.0	6.95	2	10:00-14:00	2-closed 2-6" open	2021.8	2028.5
8-04	14:28	28.4	7.22	14:30	15.9	3.70	0	——	2-closed 2-6" open	2021.8	——
8-06	10:31	22.6	8.01	10:34	12.5	3.63	0	——	2-closed 2-6" open	2022.4	——
8-06	11:30	24.3	7.74	11:32	15.1	6.21	2	11:00-14:00	2-closed 2-6" open	2022.4	2028.5
8-06	14:20	23.9	7.88	14:32	15.0	3.04	0	——	2-closed 2-6" open	2022.4	——
8-08	13:24	25.3	7.68	13:32	15.3	6.33	2	13:00-17:00	2-closed 2-6" open	2022.0	2028.4
8-09	13:41	27.6	7.31	13:49	15.8	6.70	2	12:45-14:45	2-closed 2-6" open	2022.5	2028.5
8-11	10:31	23.6	7.72	10:33	16.5	4.95	0	——	2-closed 2-6" open	2023.2	——
8-11	11:29	24.4	7.76	11:32	13.2	5.20	1	11:00-14:00	2-closed 2-6" open	2023.2	2028.2
8-11	14:29	25.2	7.63	14:32	14.0	3.71	0	——	2-closed 2-6" open	2023.2	——
8-13	10:29	23.0	7.96	10:31	13.0	3.25	0	——	2-closed 2-6" open	2022.3	——
8-13	11:31	24.5	7.74	11:33	15.3	6.23	2	11:00-14:00	2-closed 2-6" open	2022.3	2028.5
8-13	14:29	25.5	7.59	14:35	15.9	2.56	0	——	2-closed 2-6" open	2022.3	——

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

DATE AUG 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM FROM WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEV	OPERATI TAILRAC ELEV
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
8-16	11:42	22.3	7.84	11:56	16.7	6.01	2	10:45 - 15:00	2-closed 2-6" open	2022.0	2028.5
8-17	10:35	22.9	7.82	10:43	13.2	2.35	0	———	2-Closed 2-6" open	2022.3	———
8-17	11:17	23.1	7.68	11:24	11.3	5.96	2	11:00 - 14:00	2-Closed 2-6" open	2022.3	2028.5
8-18	10:30	18.8	8.54	10:36	12.1	2.33	0	———	2-closed 2-6" open	2022.0	———
8-18	11:48	19.8	8.45	12:02	15.7	5.91	2	11:00 - 14:00	2-closed 2-6" open	2022.0	2028.5
8 18	14:30	20.8	8.30	14:38	16.6	2.37	0	———	2-Closed 2-6" open	2022.0	———
8-20	10:25	21.1	8.26	10:33	12.4	2.49	0	———	2-closed 2-6" open	2021.9	———
8-20	11:23	21.5	7.90	11:31	16.7	6.10	2	11:00 - 14:00	2-closed 2-6" open	2021.9	2028.5
8-20	14:19	24.1	7.77	14:26	16.9	2.93	0	———	2-closed 2-6" open	2021.9	———
8-21	11:17	23.0	7.95	11:19	16.5	5.50	2	10:45 - 13:00	2-CLOSED 2-6" OPEN	2025.3	2028.5
8-21	13:17	26.4	7.46	13:19	17.2	6.29	0	———	2-CLOSED 2-6" OPEN	2025.3	———
8-22	11:44	24.2	7.77	11:46	15.9	5.71	2	11:15 - 19:00	2-CLOSED 2-6" OPEN	2024.2	2028.5
8-23	11:25	24.6	7.72	11:38	15.8	5.90	2	11:00 - 18:00	2-closed 2-6" open	2023.3	2028.5
8-24	10:18	24.0	7.81	10:21	17.0	6.27	2	09:45 - 18:00	2-CLOSED 2-6" OPEN	2022.9	2028.5
8-25	10:43	24.2	7.54	10:56	12.7	3.10	0	———	2-closed 2-6" open	2022.6	———
8-25	11:20	21.7	7.95	11:26	16.3	5.74	2	11:00 - 18:00	2-Closed 2-6" open	2022.6	2028.5
8-27	10:28	22.4	8.06	10:31	12.3	3.01	0	———	2-CLOSED 2-6" OPEN	2022.3	———
8-27	11:20	22.6	8.02	11:23	16.1	5.79	2	10:45 - 14:00	2-CLOSED 2-6" OPEN	2022.3	2028.5
8-27	14:09	24.2	7.77	14:20	16.6	2.76	0	———	2-Closed 2-6" open	2022.3	———
8-28	11:32	27.5	7.33	11:34	11.9	5.35	2	11:00 — 22:15	2-CLOSED 2-6" OPEN	2022.2	2028.5

DEEP CRE. TATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

Data 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM OF WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEVATION	OPERATING TAILRACE ELEV.
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
8-29	11:39	24.6	7.72	11:41	16.4	6.10	2	11:00-19:00	2-CLOSED 2-6"OPEN	2022.1	2028.5
8-31	11:33	23.1	7.94	11:36	16.1	5.87	2	08:15-14:00	2-CLOSED 2-6"OPEN	2022.0	2028.5
8-31	14:33	23.6	7.87	14:36	17.0	2.04	0	——	2-CLOSED 2-6"OPEN	2022.0	——
9-01	09:32	16.3	9.10	09:40	12.7	2.15	0	——	2-Closed 2-6"open	2021.9	——
9-01	10:26	17.1	8.84	10:35	16.4	5.89	2	10:00-13:00	2-Closed 2-6"open	2021.9	2028.5
9-01	13:20	19.7	8.40	13:32	17.6	2.34	0	——	2-Closed 2-6"open	2021.9	——
9-03	08:15	20.1	8.27	08:25	12.3	2.33	0	——	2-closed 2-6"open	2021.8	——
9-03	11:38	22.5	7.73	11:45	16.9	5.85	2	10:00-13:00	2-closed 2-6"open	2021.8	2028.5
9-03	13:42	23.0	7.62	13:50	17.5	2.43	0	——	2-closed 2-6"open	2021.8	——
9-04	12:47	22.7	7.91	12:56	17.2	5.92	2	11:30-21:00	2-closed 2-6"open	2021.8	2028.5
9-05	10:20	21.1	8.25	10:27	13.4	2.23	0	——	2-closed 2-6"open	2021.7	——
9-05	11:30	20.5	8.33	11:39	16.7	5.77	2	11:00-21:00	2-closed 2-6"open	2021.7	2028.4
9-06	10:15	21.2	8.26	10:23	13.4	2.62	0	——	2-closed 2-6"open	2021.7	——
9-06	12:34	23.3	7.80	12:48	17.0	5.72	2	12:00-16:00	2-closed 2-6"open	2021.7	2028.4
9-07	09:31	22.8	7.82	09:45	13.0	2.16	0	——	2-closed 2-6"open	2021.7	——
9-07	10:17	21.1	8.27	10:35	17.5	5.82	2	10:00-13:00	2-closed 2-6"open	2021.7	2028.5
9-08	09:26	23.4	7.81	09:36	13.2	2.63	0	——	2-closed 2-6"open	2021.7	——
9-08	10:43	22.3	8.07	10:59	17.5	5.68	2	10:00-13:00	2-closed 2-6"open	2021.7	2028.5
9-08	14:03	26.6	7.45	14:12	18.2	2.99	0	——	2-closed 2-6"open	2021.7	——
9-09	12:31	27.0	7.39	12:34	13.2	2.38	0	——	2-CLOSED 2-6"OPEN	2021.7	——
9-09	13:30	27.0	7.39	13:32	16.4	5.62	2	13:00-16:15	2-CLOSED 2-6"OPEN	2021.7	2028.4
9-10	08:45	23.9	7.74	08:47	13.7	2.34	0	——	2-CLOSED 2-6"OPEN	2021.6	——
9-10	12:39	25.5	7.38	12:48	17.3	5.60	2	10:00-13:00	2-Closed 2-6"open	2021.6	2028.5
9-11	12:39	22.8	7.99	12:46	13.4	2.38	0	——	2-closed 2-6"Open	2021.7	——

DEEP CREEK STATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

Date 2007	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM OF WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEVATION	OPERATING TAILRACE ELEV.
	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
09-12-07	13:22	19.9	8.39	13:29	15.7	5.54	2	13:00-16:30	2-closed 2-6" open	2022.2	2028.4
9-13-07	14:02	19.9	8.39	14:14	17.1	5.71	2	13:00-19:00	2-closed 2-6" open	2022.0	2028.3
9-14	10:48	18.2	8.72	10:50	18.6	6.08	2	10:30-21:00	2-CLOSED 2-6" OPEN	2021.6	2028.5
9-17	09:49	14.0	9.45	09:56	16.6	5.74	1	08:45-21:00	2-closed 2-6" open	2021.8	2028.2
9-18	13:12	15.8	9.06	13:20	18.5	6.53	2	11:15-21:00	2-closed 2-6" open	2021.7	2028.5
9-20	09:30	16.5	9.06	09:32	14.5	3.38	0	——	2-CLOSED 2-6" OPEN	2021.6	——
9-20	10:31	16.6	9.00	10:33	18.3	6.80	2	10:00-21:00	2-CLOSED 2-6" OPEN	2021.6	2028.5
9-21	09:28	16.5	9.05	09:30	14.4	2.68	0	——	2-CLOSED 2-6" OPEN	2021.6	——
9-21	10:22	16.9	8.70	10:36	18.4	6.34	2	10:00-13:00	2-closed 2-6" open	2021.6	2028.5
9-21	14:56	20.1	8.40	14:58	18.9	4.76	0	——	2-CLOSED 2-6" OPEN	2021.6	——
9-24	09:29	15.1	9.25	09:32	13.8	2.62	0	——	2-CLOSED 2-6" OPEN	2021.6	——
9-24	10:28	16.0	9.16	10:35	18.2	6.65	2	13:00-13:00	2-closed 2-6" open	2021.6	2028.5
9-24	13:30	26.1	7.29	13:48	18.7	4.31	0	——	2-Closed 2-6" open	2021.6	——
9-25	14:33	22.1	6.05	14:41	18.1	6.67	2	13:45-18:00	2-closed 2-6" open	2021.6	2028.5
9-26	14:21	23.6	8.92	14:30	18.1	6.71	2	14:00-16:30	2-closed 2-6" open	2021.6	2028.5
9-28	09:29	19.9	8.46	09:33	14.1	1.92	0	——	2-CLOSED 2-6" OPEN	2022.0	——
9-28	10:51	18.3	8.74	10:53	17.9	6.44	2	10:00-13:00	2-CLOSED 2-6" OPEN	2022.0	2028.5
9-28	13:24	21.4	8.16	13:32	18.2	3.27	0	——	2-Closed 2-6" open	2022.0	——
10-01-07	09:28	16.8	8.64	09:36	14.2	2.06	0	——	2-closed 2-6" open	2021.7	——
10-1	10:23	20.0	7.87	10:32	18.3	6.64	2	10:00-13:00	2-closed 2-6" open	2021.7	2028.5
10-1	13:30	20.0	8.46	13:32	18.9	4.61	0	——	2-CLOSED 2-6" OPEN	2021.7	——
10-5	09:24	20.9	8.26	09:36	14.1	5.37	0	——	2-Closed 2-6" open	2021.7	——
10-05	10:31	22.5	7.54	10:39	18.5	6.94	2	10:00-19:00	2-closed 2-6" open	2021.7	2028.5
10-6	09:34	21.2	8.24	09:37	14.9	5.53	0	——	2-CLOSED 2-6" OPEN	2021.7	——

DEEP CREE ATION
DISSOLVED OXYGEN MONITORING LOG

(Instrument Calibrated to 2000 ft. MSL)

Date	INSTRUMENT CALIBRATION CAL. READINGS			DO MEASUREMENTS DOWNSTREAM OF WEIR			NO. UNITS GENERATING	TIMES OF GENERATION	SLUICE GATE POSITION	NON-OPERATING TAILRACE ELEVATION	OPERATING TAILRACE ELEV.
2007	TIME	TEMP °C	DO (mg/l)	TIME	TEMP °C	DO (mg/l)					
10-6	10:28	19.8	8.48	10:31	18.6	7.28	2	09:45-13:00	2-CLOSED 2-6" OPEN	2021.7	2028.5
10-6	13:30	23.7	7.85	13:32	18.9	6.25	0	—	2-CLOSED 2-6" OPEN	2021.7	—
10-8	10:13	20.0	8.46	10:20	18.4	7.14	2	10:00-21:15	2-CLOSED 2-6" OPEN	2021.7	2028.5
10-9	10:06	22.8	7.99	10:08	17.4	6.68	2	7:00-23:00	2-CLOSED 2-6" OPEN	2021.7	2028.3

APPENDIX F

WATER APPROPRIATION AND USE PERMIT
GA1992S009(07)

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION

WATER APPROPRIATION AND USE PERMIT

PERMIT NUMBER: GA1992S009(07)

EFFECTIVE DATE: APRIL 1, 2007

EXPIRATION DATE: APRIL 1, 2019

FIRST APPROPRIATION: JANUARY 1, 1925

BROOKFIELD POWER PINEY & DEEP CREEK LLC

HEREINAFTER REFERRED TO AS THE "PERMITTEE", IS AUTHORIZED BY THE WATER MANAGEMENT ADMINISTRATION, HEREINAFTER REFERRED TO AS THE "ADMINISTRATION" PURSUANT TO THE PROVISIONS OF TITLE 5 OF THE ENVIRONMENT ARTICLE, ANNOTATED CODE OF MARYLAND (1996 REPLACEMENT VOLUME) AS AMENDED, TO APPROPRIATE AND USE WATERS OF THE STATE SUBJECT TO THE FOLLOWING CONDITIONS:

1. ALLOCATION - THE WATER WITHDRAWAL GRANTED BY THIS PERMIT IS LIMITED TO:
   A DAILY AVERAGE OF 94,000,000 GALLONS ON A YEARLY BASIS AND A MAXIMUM DAILY WITHDRAWAL OF 420,000,000 GALLONS.

2. USE - THE WATER IS TO BE USED FOR HYDROELECTRIC GENERATION, TEMPERATURE ENHANCEMENT, WHITEWATER BOATING ENHANCEMENT, AND MAINTENANCE OF MINIMUM FLOWS IN THE YOUGHIOGHENY RIVER.

3. SOURCE - THE WATER SHALL BE TAKEN FROM DEEP CREEK LAKE.

4. LOCATION - THE POINT(S) OF WITHDRAWAL SHALL BE LOCATED AT THE EXISTING INTAKE STRUCTURE AT THE DEEP CREEK LAKE DAM, THREE MILES WEST OF THAYERVILLE, GARRETT COUNTY, MARYLAND.

CONTINUED ON PAGE 2

5. RIGHT OF ENTRY - THE PERMITTEE SHALL ALLOW AUTHORIZED REPRESENTATIVES OF THE ADMINISTRATION ACCESS TO THE PERMITTEE'S FACILITY TO CONDUCT INSPECTIONS AND EVALUATIONS NECESSARY TO ASSURE COMPLIANCE WITH THE CONDITIONS OF THIS PERMIT. THE PERMITTEE SHALL PROVIDE SUCH ASSISTANCE AS MAY BE NECESSARY TO EFFECTIVELY AND SAFELY CONDUCT SUCH INSPECTIONS AND EVALUATIONS.

6. PERMIT REVIEW - THE PERMITTEE WILL BE QUERIED EVERY THREE YEARS (TRIENNIAL REVIEW) REGARDING WATER USE UNDER THE TERMS AND CONDITIONS OF THIS PERMIT. FAILURE TO RETURN THE TRIENNIAL REVIEW QUERY WILL RESULT IN SUSPENSION OR REVOCATION OF THIS PERMIT.

7. PERMIT RENEWAL - THIS PERMIT WILL EXPIRE ON THE DATE INDICATED ON THE FIRST PAGE OF THIS PERMIT. IN ORDER TO RENEW THE PERMIT THE PERMITTEE SHALL FILE A RENEWAL APPLICATION WITH THE ADMINISTRATION NO LATER THAN 45 DAYS PRIOR TO THE EXPIRATION.

8. PERMIT SUSPENSION OR REVOCATION - THIS PERMIT MAY BE SUSPENDED OR REVOKED BY THE ADMINISTRATION UPON VIOLATION OF THE CONDITIONS OF THIS PERMIT, OR UPON VIOLATION OF ANY REGULATION PROMULGATED PURSUANT TO TITLE 5 OF THE ENVIRONMENT ARTICLE, ANNOTATED CODE OF MARYLAND (1996 REPLACEMENT VOLUME) AS AMENDED.

9. CHANGE OF OPERATIONS - ANY ANTICIPATED CHANGE IN APPROPRIATION WHICH MAY RESULT IN A NEW OR DIFFERENT USE, QUANTITY, SOURCE, OR PLACE OF USE OF WATER SHALL BE REPORTED TO THE ADMINISTRATION BY THE PERMITTEE BY SUBMISSION OF A NEW APPLICATION.

10. ADDITIONAL PERMIT CONDITIONS - THE ADMINISTRATION MAY AT ANYTIME (INCLUDING TRIENNIAL PERMIT REVIEW OR WHEN A CHANGE APPLICATION IS SUBMITTED) REVISE ANY CONDITION OF THIS PERMIT OR ADD ADDITIONAL CONDITIONS CONCERNING THE CHARACTER, AMOUNT, MEANS AND MANNER OF THE APPROPRIATION OR USE, WHICH MAY BE NECESSARY TO PROPERLY PROTECT, CONTROL AND MANAGE THE WATER RESOURCES OF THE STATE. CONDITION REVISIONS AND ADDITIONS WILL BE ACCOMPLISHED BY ISSUANCE OF A REVISED PERMIT.

11. NON-TRANSFERRABLE - THIS PERMIT IS NON-TRANSFERRABLE. A NEW OWNER MAY ACQUIRE AUTHORIZATION TO CONTINUE THIS APPROPRIATION BY FILING A NEW APPLICATION WITH THE ADMINISTRATION. AUTHORIZATION WILL BE ACCOMPLISHED BY ISSUANCE OF A NEW PERMIT.

CONTINUED ON PAGE 3

12. FLOW MEASUREMENT - THE PERMITTEE SHALL MEASURE ALL WATER USED UNDER THIS PERMIT BY A METHOD WHICH SHALL BE APPROVED BY THE ADMINISTRATION. THE PERMITTEE SHALL MAINTAIN A DAILY LOG, SUBJECT TO INSPECTION BY AN AUTHORIZED REPRESENTATIVE OF THE ADMINISTRATION.

13. WITHDRAWAL REPORTS - THE PERMITTEE SHALL SUBMIT TO THE ADMINISTRATION, SEMI-ANNUALLY (JULY-DECEMBER, NO LATER THAN JANUARY 31 AND JANUARY-JUNE, NO LATER THAN JULY 31), WATER USE RECORDS. THESE RECORDS SHALL SHOW THE TOTAL QUANTITY OF WATER RELEASED EACH MONTH UNDER THIS PERMIT.

14. RULE BAND AND OPERATION PROTOCOLS - THE PERMITTEE SHALL OPERATE THE DEEP CREEK HYDROELECTRIC PROJECT (PROJECT) ACCORDING TO THE PROJECT OPERATING RULES SPECIFIED THROUGHOUT THIS PERMIT SUCH THAT WATER ELEVATIONS IN DEEP CREEK LAKE ARE MAINTAINED WITHIN THE OPERATING RULE BAND, EXCEPT IN THE EVENT OF UNUSUAL OR EMERGENCY CONDITIONS AS DEFINED BELOW. THE UPPER AND LOWER RULE BANDS ARE THE HIGHEST AND LOWEST DESIRABLE RESERVOIR LEVELS AT THE END OF EACH MONTH. THE UPPER AND LOWER END OF EACH MONTH ARE DEFINED IN THE FOLLOWING TABLE. WHEN LAKE LEVELS ARE ABOVE THE UPPER RULE BAND, THE PERMITTEE MAY RELEASE WATER AS NEEDED TO DRAW DOWN THE LAKE TO A LEVEL WITHIN THE RULE BAND. ELEVATIONS ARE GIVEN IN FEET ABOVE MEAN SEA LEVEL.

PROJECT OPERATING RULE BAND

MONTH	UPPER BAND ELEVATIONS	LOWER BAND ELEVATIONS
JANUARY	2457.9	2455.0
FEBRUARY	2457.9	2456.0
MARCH	2459.5	2458.0
APRIL	2461.0	2459.6
MAY	2461.0	2460.0
JUNE	2461.0	2460.0
JULY	2460.0	2459.0
AUGUST	2459.0	2458.0
SEPTEMBER	2458.5	2457.0
OCTOBER	2457.9	2456.0
NOVEMBER	2457.9	2455.0
DECEMBER	2457.9	2455.0

IN THE EVENT OF UNUSUAL OR EMERGENCY CONDITIONS, THE NORMAL MONTHLY OPERATING RULES MAY BE MODIFIED OR SUSPENDED UNTIL SUCH TIME AS UNUSUAL OR EMERGENCY CONDITIONS NO LONGER EXIST. UNUSUAL OR EMERGENCY CONDITIONS ARE DEFINED AS:

CONTINUED ON PAGE 4

14. CONT'D

(A) A SYSTEM EMERGENCY, DEFINED AS MAXIMUM EMERGENCY GENERATION UNDER THE PENNSYLVANIA-NEW JERSEY-MARYLAND INTERCONNECTION (PJM) HIERARCHY OF EMERGENCY ORDERS, OR EMERGENCY LOADING OF SPINNING RESERVE CAPACITY, OR EMERGENCY CONTROL OF TRANSMISSION FACILITY LOADING;

(B) A SITE EMERGENCY SUCH AS FAILURE OR PROBABLE FAILURE OF THE DAM THAT REQUIRES MAXIMUM RELEASE FOR RAPID DRAWDOWN OF THE RESERVOIR;

(C) A SITE EMERGENCY OR OTHER FORCED (UNSCHEDULED) OUTAGE REQUIRING SHUTDOWN OF THE INTAKE, POWER TUNNEL, PENSTOCKS, OR GENERATING UNITS, RESULTING IN THE INABILITY TO GENERATE OR TO OPERATE THE PROPOSED MINIMUM RELEASE BYPASS;

(D) MAINTENANCE OF THE DAM OR REPAIR OF LAKE SHORELINE EROSION WHICH REQUIRES LOWERING OF LAKE LEVEL BELOW THE LOWER RULE BAND TO ALLOW ACCESS OR TO CONTROL INFLOW;

(E) ACTUAL OR FORECAST EXTRAORDINARILY HIGH RUNOFF OR RAINFALL WHICH REQUIRES UNLIMITED GENERATION IN ORDER TO KEEP THE LAKE LEVEL BELOW THE UPPER RULE BAND AND/OR AVOID SPILLING OVER THE TOP OF THE DAM.

THE DURATION AND TIMING OF PLANNED OUTAGES SHALL BE APPROVED IN ADVANCE BY THE ADMINISTRATION. IN PROPOSING PLANNED OUTAGES, THE PERMITTEE SHALL DETAIL REASONS WHY THE OUTAGE IS NECESSARY AS WELL AS HOW THE OUTAGE WILL IMPACT THE FISHERY AND WHITEWATER RECREATION IN THE YOUGHIOGHENY RIVER. TO THE EXTENT POSSIBLE, PLANNED OUTAGES SHALL NOT OCCUR DURING MID-APRIL THROUGH MID-OCTOBER.

15. LAKE LEVEL MONITORING AND REPORTING - THE PERMITTEE SHALL MEASURE AND RECORD THE WATER ELEVATIONS IN THE DEEP CREEK LAKE AT APPROXIMATELY THE SAME TIME EACH DAY. THE PERMITTEE SHALL REPORT THE RESULTS OF WATER-LEVEL MONITORING TO THE ADMINISTRATION ON AN ANNUAL BASIS, AND SHALL MAINTAIN A DAILY LOG OF MEASUREMENTS, SUBJECT TO INSPECTION BY THE ADMINISTRATION.

16. TEMPERATURE ENHANCEMENT IN THE YOUGHIOGHENY RIVER - THE PERMITTEE SHALL IMPLEMENT A PLAN APPROVED BY THE DEPARTMENT FOR USING PROJECT OPERATION, OR A COMBINATION OF MINIMUM FLOW RELEASES AND PROJECT OPERATION, TO MAINTAIN WATER TEMPERATURES LESS THAN 25 DEGREES C IN THE YOUGHIOGHENY RIVER BETWEEN THE PROJECT TAILRACE AND SANG RUN, DURING THE MONTHS OF JUNE, JULY

CONTINUED ON PAGE 5

16. CONT'D
AND AUGUST. THE PLAN MUST INCLUDE A TRIGGERING MECHANISM AND REAL-TIME MONITORING OF RIVER TEMPERATURE. THE PLAN MUST INCLUDE A PROTOCOL FOR PREDICTING TEMPERATURE RELEASES ON THE MORNING OF THE RELEASE, AS EARLY AS THREE HOURS IN ADVANCE. THE PERMITTEE SHALL REPORT TO THE DEPARTMENT ALL OCCURRENCES OF WATER TEMPERATURES EQUALING OR EXCEEDING 25 DEGREES C WITHIN 30 DAYS OF THE DATE OF OCCURRENCE, INCLUDING PROPOSED MEASURES OR CHANGES TO THE PLAN TO PRECLUDE FUTURE INCIDENTS WHERE WATER TEMPERATURE EQUALS OR EXCEEDS 25 DEGREES C. THE PERMITTEE SHALL INCLUDE THE RESULTS OF TEMPERATURE MONITORING IN AN ANNUAL REPORT. THE PERMITTEE SHALL, IN CONSULTATION WITH THE DEPARTMENT, CONTINUE TO REFINE OR REVISE THE PLAN WITH THE OBJECTIVE OF MAINTAINING WATER TEMPERATURES IN THE RIVER BETWEEN THE PROJECT TAILRACE AND SANG RUN BELOW 25 DEGREES C AT ALL TIMES DURING THE MONTHS OF JUNE, JULY AND AUGUST.

17. MINIMUM FLOW RELEASES - THE PERMITTEE SHALL MAINTAIN AND OPERATE A BYPASS SYSTEM AT THE PROJECT TO MAINTAIN A MINIMUM FLOW OF 40 CFS IN THE YOUGHIOGHENY RIVER DOWNSTREAM OF THE PROJECT TAILRACE. THE MINIMUM FLOW SHALL BE MAINTAINED AT ALL TIMES BELOW THE TAILRACE. A REDUCTION IN THE MINIMUM FLOW BELOW 40 CFS MAY BE REQUESTED OF THE ADMINISTRATION WHEN RESERVOIR LEVELS ARE ONE FOOT OR MORE BELOW THE LOWER RULE BAND. THE PERMITTEE SHALL ESTIMATE FLOW IN THE YOUGHIOGHENY RIVER IMMEDIATELY BELOW THE TAILRACE AT APPROXIMATELY THE SAME TIME EACH DAY. A REPORT OF FLOW ESTIMATES AND THE OCCURRENCE OF BYPASS RELEASES SHALL BE SUBMITTED TO THE DEPARTMENT IN AN ANNUAL REPORT, AND A DAILY LOG OF SUCH RELEASES SHALL BE MAINTAINED, SUBJECT TO INSPECTION BY AN AUTHORIZED REPRESENTATIVE OF THE ADMINISTRATION. THE PERMITTEE SHALL PROVIDE A CONTINUOUS FLOW INTO THE TAILRACE OF APPROXIMATELY 9 CFS DURING THE MONTHS OF JUNE, JULY AND AUGUST, EVEN WHEN THERE IS NO MINIMUM BYPASS FLOW AS REQUIRED BY THIS CONDITION.

18. DISSOLVED OXYGEN MITIGATION - THE PERMITTEE SHALL MAINTAIN AND OPERATE A TAILRACE WEIR DESIGNED TO INCREASE DISSOLVED OXYGEN LEVELS IN ALL PROJECT DISCHARGES ABOVE MARYLAND WATER QUALITY STANDARDS AS OUTLINED IN COMAR 26.08.02 (5 PPM MINIMUM, 6 PPM DAILY AVERAGE). THE PERMITTEE SHALL MONITOR DISSOLVED OXYGEN LEVELS OF PROJECT DISCHARGES BY A METHOD APPROVED BY THE ADMINISTRATION DURING JUNE 1 TO OCTOBER 1. THE RESULTS OF DISSOLVED OXYGEN MONITORING SHALL BE SUBMITTED TO THE DEPARTMENT IN AN ANNUAL REPORT. THE PERMITTEE SHALL MAINTAIN A LOG OF MEASUREMENTS, SUBJECT TO INSPECTION BY AN AUTHORIZED REPRESENTATIVE OF THE ADMINISTRATION.

CONTINUED ON PAGE 6

19. RELEASES FOR WHITEWATER RECREATION

A) WHITEWATER RELEASES. THERE ARE TWO TYPES OF SCHEDULED WHITEWATER RELEASES (WWR); STANDARD AND SPECIAL RELEASES. ALL WWR ARE SUBJECT TO THE RULE BAND AND OPERATION REQUIREMENTS IN CONDITION 14, THE TEMPERATURE ENHANCEMENT RELEASE (TER) REQUIREMENTS IN CONDITION 16 AND THE PARAMETERS DEFINED BELOW IN PARAGRAPH B. THE INTENT OF WWR IS TO ENHANCE RECREATIONAL WHITEWATER ENJOYMENT FROM THE PROJECT TAILRACE TO FRIENDSVILLE.

I) STANDARD WWR. WITH THE EXCEPTION OF THE SPECIAL WWR CONDITIONS IN PARAGRAPH II) BELOW, STANDARD WWR WILL OCCUR ON SUNDAYS, MONDAYS, FRIDAYS, AND SATURDAYS BETWEEN APRIL 15TH AND OCTOBER 15TH IN ACCORDANCE WITH THE FOLLOWING TABLE AND MAY BE MODIFIED BY ITEMS II) AND III) BELOW.

MONTH	SUNDAY	MONDAY	FRIDAY	SATURDAY
APRIL	NONE	NONE	ALL FRIDAYS AFTER APRIL 14TH (1000 HR TO 1300 HR)	NONE
MAY	NONE	1ST TWO MONDAYS (1000 HR TO 1300 HR)	1ST THREE FRIDAYS (1000 HR TO 1300 HR)	1ST SATURDAY (1000 HR TO 1300 HR)
MEMORIAL DAY WEEKEND	ODD NUMBERED YEARS (1000 HR TO 1300 HR)	ODD NUMBERED YEARS (1000 HR TO 1300 HR)	EVEN NUMBERED YEARS (1000 HR TO 1300 HR)	EVEN NUMBERED YEARS (1000 HR TO 1300 HR)
JUNE	NONE	EVERY MONDAY (1100 HR TO 1400 HR)	EVERY FRIDAY (1100 HR TO 1400 HR)	LAST TWO SATURDAYS (1100 HR TO 1400 HR)
JULY	NONE	EVERY MONDAY (1100 HR TO 1400 HR)	EVERY FRIDAY (1100 HR TO 1400 HR)	EVERY SATURDAY (1100 HR TO 1400 HR) (see also Special WWR below)
AUGUST	NONE	EVERY MONDAY (1100 HR TO 1400 HR)	EVERY FRIDAY (1100 HR TO 1400 HR)	EVERY SATURDAY (1100 HR TO 1400 HR)
SEPTEMBER	NONE	EVERY MONDAY (1000 HR TO 1300 HR)	EVERY FRIDAY (1000 HR TO 1300 HR)	FIRST TWO SATURDAYS (1000 HR TO 1300 HR)
OCTOBER	NONE	ALL MONDAYS BEFORE OCTOBER 16TH (1000 HR TO 1300 HR)	ALL FRIDAYS BEFORE OCTOBER 16TH (1000 HR TO 1300 HR)	FIRST SATURDAY (1000 HR TO 1300 HR)

II) SPECIAL WWR. SPECIAL WWR MUST BE REQUESTED IN WRITING TO MDE NO LATER THAN 30 CALENDAR DAYS BEFORE THE SPECIAL WWR AND WILL, AT A MINIMUM, INCLUDE:

+ ANNUAL TEAM FRIENDSVILLE UPPER YOUGH RACE WWR. THE FOURTH SATURDAY WWR IN JULY WILL BE AN EXTENDED SIX (6) HOUR CONTINUOUS RELEASE BETWEEN 1100 HOURS AND 1700 HOURS TO ACCOMMODATE THE ANNUAL TEAM FRIENDSVILLE UPPER YOUGH RACE. THE ANNUAL TEAM FRIENDSVILLE UPPER YOUGH RACE WWR IS CONTINGENT ON THE LAKE LEVEL ELEVATION BEING HIGHER THAN THE ONE (1) FOOT BELOW THE LOWER RULE BAND ON THE DAY OF THE WWR.

+ GAULEY WEEK WWR. GAULEY WEEK RELEASES INCLUDE CONTINUOUS THREE (3) HOUR RELEASES FROM 1000 HOURS TO 1300 HOURS ON TUESDAY, WEDNESDAY, AND THURSDAY OF THE WEEK BEFORE THE GAULEY FESTIVAL WEEKEND IN SUMMERSVILLE, WEST VIRGINIA. THE GAULEY FESTIVAL WEEKEND IS TYPICALLY SCHEDULED DURING THE SECOND HALF OF SEPTEMBER. EACH DAY OF THE GAULEY WEEK WWR IS CONTINGENT ON THE LAKE LEVEL ELEVATION BEING HIGHER THAN THE LOWER RULE BAND.

III) SYNCHRONIZATION OF WWR WITH TER. THE EXTENT PRACTICABLE AND AT THE DISCRETION OF THE PERMITTEE, ANY WWR MAY BE SYNCHRONIZED WITH ANY TER THAT MAY BE REQUIRED DURING THE MONTHS OF JUNE, JULY, AND AUGUST. SYNCHRONIZATION MEANS COMMENCING A WWR UP TO ONE (1) HOUR EARLIER TO MORE ACCURATELY COINCIDE WITH A TER. IN THE EVENT THE PERMITTEE EXPECTS TO SYNCHRONIZE A WWR WITH A TER ON A GIVEN DAY, IT SHALL PLACE NOTICE OF THE SAME ON A RECORDED MESSAGE, ACCESSIBLE TO THE PUBLIC BY TELEPHONE AS SOON AS THE DECISION TO SYNCHRONIZE IS MADE.

B) FROM APRIL 15TH THROUGH OCTOBER 15TH, THE FOLLOWING ADDITIONAL OPERATING RULES WILL ALSO BE IN EFFECT:

I) THE PERMITTEE SHALL NOT OPERATE THE PROJECT FOR HYDROELECTRIC GENERATION BEFORE 1300 HOURS WHEN NATURAL FLOWS AS MEASURED AT FRIENDSVILLE USGS GAGE 03076500 (FRIENDSVILLE) ARE BETWEEN 1300 AND 2500 CFS UNLESS AN UNUSUAL OR EMERGENCY CONDITION EXISTS, OR LAKE EXCEEDS THE UPPER RULE BAND.

CONTINUED ON PAGE 8

II) WHEN NATURAL FLOWS AS MEASURED AT FRIENDSVILLE ARE GREATER THAN 600, BUT LESS THAN 1300 CFS, AND LAKE ELEVATION IS WITHIN THE RULE BANDS SPECIFIED IN CONDITION 14, POWERHOUSE DISCHARGE SHALL BE NO GREATER THAN THE MAXIMUM DISCHARGE OF ONE TURBINE FOR THE FIRST THREE (3) HOURS OF SCHEDULED GENERATION.

III) DURING WEEKS THAT CONTAIN A SATURDAY RELEASE, THE PERMITTEE SHALL MAKE RELEASES ON SATURDAYS WHEN THE LAKE LEVEL IS HIGHER THAN ELEVATION THAT IS ONE FOOT BELOW THE LOWER RULE BAND, AND ON SUNDAYS, MONDAYS AND FRIDAYS WHEN THE LAKE LEVEL IS ABOVE THE LOWER RULE BAND.

IV) DURING WEEKS THAT DO NOT CONTAIN A SATURDAY RELEASE, THE PERMITTEE SHALL MAKE RELEASES ON FRIDAYS WHEN THE LAKE LEVEL IS HIGHER THAN AN ELEVATION THAT IS ONE FOOT BELOW THE LOWER RULE BAND, AND ON SUNDAYS AND MONDAYS WHEN THE LAKE LEVEL IS ABOVE THE LOWER RULE BAND.

V) THE PERMITTEE MAY VARY POWERHOUSE DISCHARGE DURING ANY WWR IN ACCORDANCE WITH EITHER OF THE FOLLOWING TWO APPROACHES EXCEPT DURING THE ANNUAL TEAM FRIENDSVILLE UPPER YOUGH RACE WWR AND EXCEPT WHEN A WWR IS SYNCHRONIZED WITH A TER.

(1) 3RD HOUR REGULATION APPROACH

+ WHEN NATURAL FLOW AS MEASURED AT FRIENDSVILLE IS LESS THAN 600 CFS, POWERHOUSE DISCHARGE MAY VARY BETWEEN 320 CFS AND MAXIMUM DISCHARGE OF TWO TURBINES DURING THE THIRD HOUR OF ANY WWR SO LONG AS POWERHOUSE DISCHARGE DURING THE FIRST TWO HOURS OF THE WWR IS HELD CONSTANT AT MAXIMUM DISCHARGE OF TWO TURBINES.

+ WHEN NATURAL FLOW AS MEASURED AT FRIENDSVILLE IS GREATER THAN 600 CFS BUT LESS THAN 1300 CFS, POWERHOUSE DISCHARGE MAY VARY BETWEEN 220 CFS AND MAXIMUM DISCHARGE OF ONE TURBINE DURING THE THIRD HOUR OF ANY WWR SO LONG AS POWER HOUSE DISCHARGE DURING THE FIRST TWO HOURS OF THE WWR IS HELD CONSTANT AT MAXIMUM DISCHARGE OF ONE TURBINE.

CONTINUED ON PAGE 9

(2) ALL HOUR REGULATION APPROACH.

+ WHEN NATURAL FLOW AS MEASURED AT FRIENDSVILLE IS LESS THAN OR EQUAL TO 200 CFS, POWERHOUSE DISCHARGE WILL BE HELD CONSTANT AT MAXIMUM DISCHARGE OF TWO TURBINES FOR ALL THREE HOURS OF ANY WWR.

+ WHEN NATURAL FLOW AS MEASURED AT FRIENDSVILLE IS BETWEEN 200 AND 300 CFS, POWERHOUSE DISCHARGE MAY VARY BETWEEN 440 CFS AND MAXIMUM DISCHARGE OF TWO TURBINES DURING ANY PART OF ANY THREE HOUR WWR.

+ WHEN NATURAL FLOW AS MEASURED AT FRIENDSVILLE IS BETWEEN 300 AND 600 CFS, POWERHOUSE DISCHARGE MAY VARY BETWEEN 320 AND MAXIMUM DISCHARGE OF TWO TURBINES DURING ANY PART OF ANY THREE HOUR WWR.

+ WHEN NATURAL FLOW AS MEASURED AT FRIENDSVILLE IS GREATER THAN 600 CFS BUT LESS THAN 1300 CFS, POWERHOUSE DISCHARGE MAY VARY BETWEEN 220 CFS AND MAXIMUM DISCHARGE OF ONE TURBINE DURING ANY PART OF ANY THREE HOUR WWR.

20. ANNOUNCEMENT OF EXPECTED RELEASES - ON EACH THURSDAY, THE PERMITTEE SHALL PLACE ON A RECORDED MESSAGE ACCESSIBLE TO THE PUBLIC BY TELEPHONE, A FORECAST OF EXPECTED RELEASES FOR THE FOLLOWING WEEK. EACH MORNING, BETWEEN 0700 AND 0800 HOURS, THE PERMITTEE SHALL PLACE ON THE RECORDED MESSAGE INFORMATION ON THE SCHEDULED RELEASES FOR THE NEXT 48 HOURS.

21. ZEBRA MUSSEL MONITORING - THE PERMITTEE SHALL IMPLEMENT A ZEBRA MUSSEL (DREISSENA POLYMORPHA) MONITORING PROGRAM APPROVED BY THE ADMINISTRATION. THE RESULTS OF SUCH MONITORING SHALL BE SUBMITTED IN AN ANNUAL REPORT.

22. NOTICE OF GENERATION RELEASES - AT STRATEGIC LOCATIONS, SELECTED IN CONSULTATION WITH THE ADMINISTRATION AND INCLUDING THE SANG RUN AND HOYES RUN ACCESS AREAS, THE PERMITTEE SHALL PROMINENTLY DISPLAY WARNING NOTICES REGARDING THE HAZARD OF RAPID WATER LEVEL FLUCTUATIONS ASSOCIATED WITH WATER RELEASES FROM DEEP CREEK LAKE.

CONTINUED ON PAGE 10

23. ANNUAL REPORT - THE PERMITTEE SHALL SUBMIT AN ANNUAL REPORT TO THE ADMINISTRATION NO LATER THAN JANUARY 31 OF EACH YEAR. THE REPORT SHALL INCLUDE THE FOLLOWING DATA FOR THE PREVIOUS CALENDAR YEAR:

A) LAKE LEVEL MONITORING (CONDITION 15);
B) TEMPERATURE MONITORING (CONDITION 16);
C) MINIMUM FLOW RELEASE MONITORING (CONDITION 17);
D) DISSOLVED OXYGEN MONITORING (CONDITION 18);
E) RELEASES UNSUITABLE FOR WHITEWATER RECREATION (CONDITION 19);
F) ZEBRA MUSSEL MONITORING (CONDITION 21).

24. PERMIT SUPERSESSION - THIS PERMIT HAS BEEN REVIEWED AND REVISED AND SUPERSEDES THE APPROPRIATION AND USE GRANTED BY THE FOLLOWING PRIOR PERMIT ISSUED TO:
BRASCAN POWER PINEY AND DEEP CREEK LLC ON APRIL 27, 2005 (GA1992S009(06))

BY AUTHORITY OF THE DIRECTOR
WATER MANAGEMENT ADMINISTRATION

4/12/07
John W. Grace, Chief
SOURCE PROTECTION AND APPROPRIATION DIV

APPENDIX G

WHITEWATER RELEASE EMAIL COMMUNICATON WITH MARYLAND DEPARTMENT OF THE ENVIRONMENT

Jones, Scott

From: Becker, Eric J [eric.becker@brookfieldpower.com]
Sent: Thursday, January 03, 2008 10:44 AM
To: Curtis, Scott
Cc: Jones, Scott
Subject: FW: permit deviation support document

fyi

-----Original Message-----
From: Zarrella, Antonio
Sent: Friday, June 29, 2007 11:03 AM
To: Becker, Eric J; Roy, Vaughn
Subject: FW: permit deviation support document

Fyi...

-----Original Message-----
From: John Grace [mailto:jgrace@mde.state.md.us]
Sent: Friday, June 29, 2007 10:39 AM
To: Zarrella, Antonio
Cc: Kemp, Ken; Uncher, Thomas
Subject: Re: permit deviation support document

Dear Mr. Zarrella,

This email is to confirm, that based on the consensus of all the stakeholders on today's conference call, MDE is authorizing a one time deviation from rule band conditions, to allow Brookfield Power to execute a whitewater release on Friday June 29, 2007 and to change Monday's release (July 2, 2007) from one dependent on the Lower Rule Band level to a scheduled release. The unique conditions that are present during this year, including the later lowering of the lake level are also the basis for this decision as noted during today's call.

If you have any questions please call me at (410) 537-3714

John Grace
Water Supply Program

****
******
>>> "Zarrella, Antonio" <antonio.zarrella@brookfieldpower.com> 06/29/07 10:02 AM >>>
John, please send a confirmation for the discussed level excursion as stated in this morning's conference call. thanks and call with any issues,

Tony Zarrella
315-247-0253

<<<<GWIASIG 0.07>>>>

APPENDIX H

ZEBRA MUSSEL MONITORING REPORT

CPU Laboratory
Reading Airport Building

(610) 375-5046

Zebra Mussel Monitoring Report

(official use only - leave blank)
ZM Monitoring Network #:

1.) RANDY GARLETTS
(COLLECTOR'S NAME)

2.) BROOKFIELD POWER (COMPANY OR AFFILIATION) 3.) 301-387-6616 (PHONE NUMBER)

4.) 14 RIVERVIEW TERRACE OAKLAND, MD
(ADDRESS)

5.) DEEP CREEK POWER PLANT
(NAME OF STATION)

Physical / Chemical / and Biological Data

6.) _____ (STATION LATITUDE) 7.) _____ (STATION LONGITUDE) 8.) _____ (RIVER MILE INDEX)

9.) **Date and time this data was collected (circle year, month, day, & hour)**

Year: '98 '99 '00 '01 (07)

Month: 01 02 03 04 05 06 07 08 09 10 (11) 12

Day: 01 02 03 04 (05) 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Hour: ~~06:30am~~ (if before 7am) 07 08 09 10 11 12 (noon) 13 (1pm) 14 (2pm) 15 (3pm) 16 (4pm) 17 18 _____ (if after 6pm)

10.) 42° F (TEMPERATURE °C) 11.) _____ (pH) 12.) _____ (DISSOLVED OXYGEN mg/l) 13.) _____ (CONDUCTIVITY umhos/cm³)

14.) _____ (TOTAL CALCIUM mg/l) 15.) _____ (SECCHI DEPTH meters) 16.) _____ (CURRENT VELOCITY meters/sec) 17.) _____ (WATER DEPTH meters)

18.) How far above the natural substrate is the sampler? (in meters) _____

19.) How many days was the sampler exposed to the water prior to collecting this data? 32

20.) Are zebra mussels present at this site? (X NO) (_____ YES) - if yes, comment below and notify the Zebra Mussel Monitoring Coordinator immediately.

21.) Other organisms observed on the sampler / site? (please list) _____

22.) Comments (if more space is needed, continue on the back of this form): _____

GPU Laboratory
Reading Airport Building
(610) 375-5046

Zebra Mussel Monitoring Report

(official use only - leave blank)
ZM Monitoring Network #:

1.) RANDY GARLETTS
(COLLECTOR'S NAME)

2.) BROOKFIELD POWER
(COMPANY OR AFFILIATION)

3.) 301-387-6616
(PHONE NUMBER)

4.) 14 RIVERVIEW TERRACE OAKLAND, MD
(ADDRESS)

5.) DEEP CREEK POWER PLANT
(NAME OF STATION)

Physical / Chemical / and Biological Data

6.) _____ (STATION LATITUDE) 7.) _____ (STATION LONGITUDE) 8.) _____ (RIVER MILE INDEX)

9.) Date and time this data was collected (circle year, month, day, & hour)

Year: '98 '99 '00 '01 (01)

Month: 01 02 03 04 05 06 07 08 09 (10) 11 12

Day: 01 02 03 (04) 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Hour: ~~06:30AM~~ (if before 7am) 07 08 09 10 11 12 (noon) 13 (1pm) 14 (2pm) 15 (3pm) 16 (4pm) 17 18 _____ (if after 6pm)

10.) 81 °F (TEMPERATURE °C) 11.) _____ (pH) 12.) _____ (DISSOLVED OXYGEN mg/l) 13.) _____ (CONDUCTIVITY umhos/cm^3)

14.) _____ (TOTAL CALCIUM mg/l) 15.) _____ (SECCHI DEPTH meters) 16.) _____ (CURRENT VELOCITY meters/sec) 17.) _____ (WATER DEPTH meters)

18.) How far above the natural substrate is the sampler? (in meters) _____

19.) How many days was the sampler exposed to the water prior to collecting this data? 27

20.) Are zebra mussels present at this site? (X NO) (_____ YES) - if yes, comment below and notify the Zebra Mussel Monitoring Coordinator immediately.

21.) Other organisms observed on the sampler / site? (please list) NONE

22.) Comments (if more space is needed, continue on the back of this form): _____

GPU Laboratory
Reading Airport Building
(610) 375-5046

Zebra Mussel Monitoring Report

(official use only - leave blank)
ZM Monitoring Network #:

1.) RANDY GARLETTS
(COLLECTOR'S NAME)

2.) BROOKFIELD POWER
(COMPANY OR AFFILIATION)

3.) 301-387-6616
(PHONE NUMBER)

4.) 14 RIVERVIEW TERRACE OAKLAND, MD.
(ADDRESS)

5.) DEEP CREEK POWER PLANT
(NAME OF STATION)

Physical / Chemical / and Biological Data

6.) _____ (STATION LATITUDE)

7.) _____ (STATION LONGITUDE)

8.) _____ (RIVER MILE INDEX)

9.) Date and time this data was collected (circle year, month, day, & hour)

Year: '98 '99 '00 '01 (01)

Month: 01 02 03 04 05 06 07 08 (09) 10 11 12

Day: 01 02 03 04 05 06 07 (08) 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Hour: 06:30am (if before 7am) 07 08 09 10 11 12 (noon) 13 (1pm) 14 (2pm) 15 (3pm) 16 (4pm) 17 18 _____ (if after 6pm)

10.) 85° F (TEMPERATURE °C)

11.) _____ (pH)

12.) _____ (DISSOLVED OXYGEN mg/l)

13.) _____ (CONDUCTIVITY umhos/cm³)

14.) _____ (TOTAL CALCIUM mg/l)

15.) _____ (SECCHI DEPTH meters)

16.) _____ (CURRENT VELOCITY meters/sec)

17.) _____ (WATER DEPTH meters)

18.) How far above the natural substrate is the sampler? (in meters) _____

19.) How many days was the sampler exposed to the water prior to collecting this data? 31

20.) Are zebra mussels present at this site? (X NO) (_____ YES) - if yes, comment below and notify the Zebra Mussel Monitoring Coordinator immediately.

21.) Other organisms observed on the sampler / site? (please list) NONE

22.) Comments (if more space is needed, continue on the back of this form): _____

GPU Laboratory
Reading Airport Building
(610) 375-5046

Zebra Mussel Monitoring Report

(official use only - leave blank)
ZM Monitoring Network #:

1.) RANDY GARLETTS
(COLLECTOR'S NAME)

2.) BROOKFIELD POWER
(COMPANY OR AFFILIATION)

3.) 301-387-6616
(PHONE NUMBER)

4.) 14 RIVERVIEW TERRACE OAKLAND, MD.
(ADDRESS)

5.) DEEP CREEK POWER PLANT
(NAME OF STATION)

Physical / Chemical / and Biological Data

6.) _____ (STATION LATITUDE)

7.) _____ (STATION LONGITUDE)

8.) _____ (RIVER MILE INDEX)

9.) Date and time this data was collected (circle year, month, day, & hour)

Year: '98 '99 '00 '01 (07)

Month: 01 02 03 04 05 06 07 (08) 09 10 11 12

Day: 01 02 03 04 05 06 07 (08) 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Hour: ~~01:30pm~~ (if before 7am) 07 08 09 10 11 12 (noon) 13 (1pm) 14 (2pm) 15 (3pm) 16 (4pm) 17 18 _____ (if after 6pm)

10.) 83°F (TEMPERATURE °C)

11.) _____ (pH)

12.) _____ (DISSOLVED OXYGEN mg/l)

13.) _____ (CONDUCTIVITY umhos/cm)

14.) _____ (TOTAL CALCIUM mg/l)

15.) _____ (SECCHI DEPTH meters)

16.) _____ (CURRENT VELOCITY meters/sec)

17.) _____ (WATER DEPTH meters)

18.) How far above the natural substrate is the sampler? (in meters) _____

19.) How many days was the sampler exposed to the water prior to collecting this data? 27

20.) Are zebra mussels present at this site? (X NO) (_____ YES) - if yes, comment below and notify the Zebra Mussel Monitoring Coordinator immediately.

21.) Other organisms observed on the sampler / site? (please list) NONE

22.) Comments (if more space is needed, continue on the back of this form): _____

GPU Laboratory
Reading Airport Building
(610) 375-5046

Zebra Mussel Monitoring Report

(official use only - leave blank)
ZM Monitoring Network #:

1.) RANDY GARLETTS
(COLLECTOR'S NAME)

2.) BROOKFIELD POWER
(COMPANY OR AFFILIATION)

3.) 301-387-6616
(PHONE NUMBER)

4.) 14 RIVERVIEW TERRACE, OAKLAND, MD.
(ADDRESS)

5.) DEEP CREEK POWER PLANT
(NAME OF STATION)

Physical / Chemical / and Biological Data

6.) _____ (STATION LATITUDE) 7.) _____ (STATION LONGITUDE) 8.) _____ (RIVER MILE INDEX)

9.) **Date and time this data was collected (circle year, month, day, & hour)**

Year: '98 '99 '00 '01 (01)

Month: 01 02 03 04 05 06 (07) 08 09 10 11 12

Day: 01 02 03 04 05 06 07 08 09 10 11 (12) 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Hour: 0a-30am (if before 7am) 07 08 09 10 11 12 (noon) 13 (1pm) 14 (2pm) 15 (3pm) 16 (4pm) 17 18 _____ (if after 6pm)

10.) 78° F (TEMPERATURE °C) 11.) _____ (pH) 12.) _____ (DISSOLVED OXYGEN mg/l) 13.) _____ (CONDUCTIVITY umhos/cm²)

14.) _____ (TOTAL CALCIUM mg/l) 15.) _____ (SECCHI DEPTH meters) 16.) _____ (CURRENT VELOCITY meters/sec) 17.) _____ (WATER DEPTH meters)

18.) **How far above the natural substrate is the sampler? (in meters)** _____

19.) **How many days was the sampler exposed to the water prior to collecting this data?** 23

20.) **Are zebra mussels present at this site?** (X NO) (_____ YES) - *if yes, comment below and notify the Zebra Mussel Monitoring Coordinator immediately.*

21.) **Other organisms observed on the sampler / site? (please list)** NONE

22.) **Comments (if more space is needed, continue on the back of this form):** _____

GPU Laboratory
Reading Airport Building
(610) 375-5046

Zebra Mussel Monitoring Report

(official use only - leave blank)
ZM Monitoring Network #:

1.) Randy Gaciotts
(COLLECTOR'S NAME)

2.) Brookfield Power
(COMPANY OR AFFILIATION)

3.) 301-387-6076
(PHONE NUMBER)

4.) 14 Riverview Terrace, Oakland Md
(ADDRESS)

5.) Deep Creek Power Plant
(NAME OF STATION)

Physical / Chemical / and Biological Data

6.) _____ (STATION LATITUDE)

7.) _____ (STATION LONGITUDE)

8.) _____ (RIVER MILE INDEX)

9.) Date and time this data was collected (circle year, month, day, & hour)

Year: '98 '99 '00 '01 (07)

Month: 01 02 03 04 05 (06) 07 08 09 10 11 12

Day: 01 02 03 04 05 06 07 08 09 (10) 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Hour: 06:30^am (if before 7am) 07 08 09 10 11 12 (noon) 13 (1pm) 14 (2pm) 15 (3pm) 16 (4pm) 17 18 _____ (if after 6pm)

10.) 75° F (TEMPERATURE °C)

11.) _____ (pH)

12.) _____ (DISSOLVED OXYGEN mg/l)

13.) _____ (CONDUCTIVITY umhos/cm³)

14.) _____ (TOTAL CALCIUM mg/l)

15.) _____ (SECCHI DEPTH meters)

16.) _____ (CURRENT VELOCITY meters/sec)

17.) _____ (WATER DEPTH meters)

18.) How far above the natural substrate is the sampler? (in meters) _____

19.) How many days was the sampler exposed to the water prior to collecting this data? 41

20.) Are zebra mussels present at this site? (_X_ NO) (_____ YES) - if yes, comment below and notify the Zebra Mussel Monitoring Coordinator immediately.

21.) Other organisms observed on the sampler / site? (please list): NONE

22.) Comments (if more space is needed, continue on the back of this form): _____