

**ROANOKE RAPIDS AND GASTON  
FERC PROJECT NUMBER 2009  
ARTICLE 424 WHITEWATER BOATING PLAN  
2007, SECOND ANNUAL REPORT**

Introduction

Article 424 of the Roanoke Rapids and Gaston Hydropower License as amended on March 4, 2005 by the Federal Energy Regulatory Commission (Commission) required the development of a Whitewater Boating Plan (Plan). The plan was submitted to the Commission on December 9, 2004 and approved by the Commission on December 13, 2005. This is the second annual report. After the fifth annual report, the plan will be reviewed by the Cooperative Management Team.

Requirements

The Plan requires an annual report for the whitewater releases from the Roanoke Rapids dam to support paddler recreation. The report is to cover nine weekends of whitewater releases inclusive of the four advanced planned release weekends and quantify (a) the weekly USACE Kerr declaration, (b) time and date peaking ceased prior to the whitewater flow day and (c) USGS Halifax gage readings for the nine weekends at 9:00 AM, 12 Noon and 3:00 PM. The whitewater flow period is from the end of the anadromous fish spawning flows (June 16) through the end of October. The Plan further requires the report to be submitted to the North Carolina Department of Environment and Natural Resources (NCDENR), the US Army Corps of Engineers (USACE), the Carolina Canoe Club, the City of Roanoke Rapids and the County of Halifax, NC; and be posted on Dominion's paddler web page.

Target Whitewater Conditions

In order for desired whitewater conditions to occur, Dominion targets flows to be between 2000 cfs and 3500 cfs and have the river stage at the Halifax USGS gage at 20' or less. In order to accomplish this, Dominion ceases peaking the evening before the planned whitewater flow day.

Statistical Summary

1. Whitewater flow releases

The whitewater flow period covered 39 potential required whitewater flow days. Of those days, whitewater flow was provided 37 days (95%). Flows were not provided on two days during the whitewater boating season for the reason noted below.

2. Days when whitewater releases did not occur.

Paddler flow did not occur on October 6 or 7. For most of the last half of the paddler season, per the USACE, the Roanoke River system was in a declared drought. For the week of October 6 - 12, the Kerr declaration was 1,800 cfs. Paragraph 5.2 of the

Whitewater Boating Plan states that under a declared drought, Roanoke Rapids will release flows less than 2,000 cfs when so directed by the USACE.

3. Halifax / Weldon Rapids stage.
  - a. Halifax stage < 20'.
    - At 9:00 AM, 38 times out of 39 days (97%).
    - At 12:00 Noon, 38 times out of 39 days (97%).
    - At 3:00 PM, 38 times out of 39 days (97%).
  - b. Halifax stage < 20' when Roanoke Rapids peaked the previous day.
    - At 9:00 AM, 18 times out of 19 days (95%).
    - At 12:00 Noon, 18 times out of 19 days (95%).
    - At 3:00 PM, 18 times out of 19 days (95%).
  - c. Average Halifax stage for 39 days:
    - At 9:00 AM: 18.56'.
    - At 12:00 Noon: 18.51'.
    - At 3:00 PM: 18.47'.
  - d. Average Halifax stage when Roanoke Rapids peaked the previous day:
    - At 9:00 AM: 18.86'.
    - At 12:00 Noon: 18.75'.
    - At 3:00 PM: 18.67'.
  - e. Average Halifax stage difference between 9 AM and 3 PM when Roanoke Rapids peaked the previous day: 0.18'.

#### Advanced Planned Releases

In early March, Dominion posted on its paddler web page that the following weekends would be Advanced Planned releases: July 7 and 8, July 21 and 22, August 18 and 19 and September 1 - 3.

#### Data

The plan requires recording and reporting of data from 9 paddler flow weekends. Data from the entire paddler season is included as Appendix 1.

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ROANOKE RAPIDS WHITEWATER FLOW DATA - APPENDIX 1  
2007

ID	Date	Weekly Dec	Date Peaking Ceased	Time Peaking Ceased	RRFlow 9am	RRFlow 12pm	RRFlow 3pm	Halifax Stage 9am	Halifax Stage 12pm	Halifax Stage 3pm	Change 9am to 3pm
1	6/23/2007	2700	6/22/2007	2000	3122	3122	3122	19.69	19.68	19.68	0.01
2	6/24/2007	2700	6/22/2007	2000	3176	3176	3176	19.71	19.71	19.72	-0.01
3	6/30/2007	3100	6/29/2007	2000	3287	3287	3231	19.81	19.8	19.8	0.01
4	7/1/2007	3100	6/29/2007	2000	3194	3194	3194	19.78	19.77	19.77	0.01
5	7/7/2007	3200	7/6/2007	2000	3213	3231	3176	19.71	19.72	19.72	-0.01
6	7/8/2007	3200	7/6/2007	2000	3268	3231	3287	19.78	19.83	19.8	-0.02
7	7/14/2007	3200	7/13/2007	2000	3231	3231	3194	19.79	19.79	19.81	-0.02
8	7/15/2007	3200	7/13/2007	2000	3194	3194	3213	19.79	19.79	19.8	-0.01
9	7/21/2007	3200	7/20/2007	2000	2271	2306	2271	18.42	18.4	18.38	0.04
10	7/22/2007	3200	7/20/2007	2000	2271	2271	2271	18.34	18.35	18.34	0.00
11	7/28/2007	3300	7/27/2007	2000	2271	2271	2241	19.71	19.34	19.07	0.64
12	7/29/2007	3300	7/27/2007	2000	2426	2426	2426	18.59	18.6	18.61	-0.02
13	8/4/2007	3300	8/3/2007	2000	2737	2737	2737	19.97	19.71	19.53	0.44
14	8/5/2007	3300	8/3/2007	2000	2737	2737	2737	19.11	19.09	19.09	0.02
15	8/11/2007	3300	8/10/2007	2000	2620	2426	2296	19.42	19.33	19.19	0.23
16	8/12/2007	3300	8/10/2007	2000	2620	2522	2256	18.79	18.85	18.8	-0.01
17	8/18/2007	3400	8/17/2007	1730	2271	2271	2271	18.65	18.51	18.42	0.23
18	8/19/2007	3400	8/17/2007	1730	2490	2490	2506	18.43	18.42	18.44	-0.01
19	8/25/2007	3400	8/24/2007	2000	2571	2587	2571	22.39	21.48	20.85	1.54
20	8/26/2007	3400	8/24/2007	2000	2555	2571	2571	18.99	18.88	18.78	0.21
21	9/1/2007	3400	8/31/2007	2000	2874	2891	2839	18.42	18.48	18.58	-0.16
22	9/2/2007	3400	8/31/2007	2000	2874	2874	2926	18.72	18.77	18.78	-0.06
23	9/3/2007	3400	8/31/2007	2000	2604	2604	2620	18.51	18.45	18.41	0.10
24	9/8/2007	2000	9/7/2007	1700	2271	2241	2210	19.3	18.9	18.6	0.70
25	9/9/2007	2000	9/7/2007	1700	2210	2210	2241	17.84	17.8	17.77	0.07
26	9/15/2007	2000	9/14/2007	2000	2271	2256	2302	17.68	17.66	17.64	0.04
27	9/16/2007	2000	9/14/2007	2000	2241	2241	2241	17.6	17.6	17.57	0.03
28	9/22/2007	2000	9/21/2007	2000	2136	2150	2106	17.09	17.13	17.16	-0.07
29	9/23/2007	2000	9/21/2007	2000	2092	2092	2092	17.17	17.17	17.17	0.00
30	9/29/2007	2000	9/28/2007	2000	2092	2077	2048	17.15	17.19	17.2	-0.05
31	9/30/2007	2000	9/28/2007	2000	2106	2106	2106	17.26	17.26	17.26	0.00
32	10/6/2007	1800	10/4/2007	2000	1729	1729	1756	16.88	16.84	16.8	0.08
33	10/7/2007	1800	10/4/2007	2000	1743	1729	1716	16.72	16.71	16.71	0.01
34	10/13/2007	2000	10/12/2007	2000	2048	2048	2048	17.01	17.1	17.16	-0.15
35	10/14/2007	2000	10/12/2007	2000	2033	2019	2019	17.26	17.25	17.26	0.00
36	10/20/2007	2000	10/19/2007	1700	2033	2048	2048	17.24	17.26	17.28	-0.04
37	10/21/2007	2000	10/19/2007	1700	2092	2077	2077	17.39	17.4	17.39	0.00
38	10/27/2007	2000	10/26/2007	2000	2150	2136	2121	17.96	18	18.02	-0.06
39	10/28/2007	2000	10/26/2007	2000	2062	2077	2048	17.91	17.91	17.88	0.03
Average					2492	2484	2470	18.56	18.51	18.47	0.10
Average Halifax gage for peaking days								18.86	18.75	18.67	0.18
Yellow blocks indicate advanced planned release weekends											
Green blocks indicate 0900 stage at Halifax when Roanoke Rapids peaked the previous											