Roanoke Rapids and Gaston FERC Project No. 2009 NC & VA WHITEWATER BOATING PLAN

1.0 Goals

1.1 This Whitewater Boating Plan (Plan) is intended to enhance conditions for recreational paddling between Highway 48 and the Weldon boat ramp by improving public information, and increasing the reliability and frequency at which water elevation and flow conditions are maintained within a desirable range. The Plan has been developed in consultation with 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. This plan was developed in coordination with license Articles 404, 405, 414, and 415.

1.2 General

- 1.2.1 Preferred flows for whitewater boating in the Weldon reach of the lower Roanoke River vary from about 2000 cfs to 3300 cfs. Concurrent with these flows, the stage for the Halifax USGS gage should ideally be less than 20 feet.
- 1.2.2 For the purposes of this Plan, a Cooperative Management Team (CMT) will be formed by the licensee to provide feedback and direction for improvement to the plan. The CMT will also provide a mechanism for responding to changing river management conditions if they occur during the life of the license.
- 1.2.3 The CMT will consist of one representative from the Licensee, the Carolina Canoe Club, the NCDENR and one representative from the City of Roanoke Rapids and Halifax County area as appointed by these jurisdiction's City or County Manager.
- 1.2.4 The provisions of the Plan will be superceded by Settlement Agreement Appendix B articles FL2, FL3, FL4, FL5, FL6, and FL7 (License Articles 402, 404, 405, 409, 410, 414 and 415) if they are in conflict. Any changes to the listed articles that result in an effect on whitewater boating flows as described in this Plan will be addressed per sections 7 and 8 of this Plan.
- 1.2.5 The Commission will be notified within 30 days of any changes made to the Plan by the CMT as a result of section 1.2.4 above.

2.0 Advanced Planned Releases

- 2.1 The licensee will provide whitewater boating flow releases and long term advance notice for two weekends in July, one weekend in August and Labor Day weekend (for a total of four weekends). One of the July weekends will be the weekend closest to the Fourth of July.
- 2.2 The Licensee will post these weekend dates on its web page by April 1 each calendar year. The web page address is http://www.dom.com/about/companies/ncpower/whitewater/index.jsp

- 2.3 The Licensee will provide releases for one weekend day only, if the USACE weekly declaration is greater than 6,000 cfs. The single weekend day release will be designated on the April 1 notification.
 - 2.3.1 Of the four planned weekends, the single day planned releases (when flow greater than or equal to 6000 cfs but not in flood control) will be two Saturdays and two Sundays.
- 2.4 If a planned weekend flow release is cancelled due to emergencies or flood control, the Licensee will make a good faith effort to reschedule another planned weekend release.
- 2.5 The Licensee will post the planned whitewater boating flow release and times that the scheduled flow will be provided on the Licensee's web page by 10:00 a.m. the Friday preceding the whitewater boating flow release.

3.0 Short-term Planned Releases

- 3.1 During weekends other than those for which whitewater boating flows are planned in advance, the Licensee will provide whitewater boating flow releases for at least one of the two weekend days when the weekly declaration is less than 6000 cfs, and greater than 4,000 cfs and both weekend days when the weekly declaration is less than 4000 cfs.
- 3.2 When weekly flow declarations are equal to or greater than 6,000 cfs the Licensee will not be obligated to provide whitewater boating flows during the weekend.
- 3.3 The scheduled flow and times that the scheduled flow will be provided will be posted on the Licensee's web page by 10:00 a.m. the Friday preceding the whitewater boating flow release.
- 3.4 The days of whitewater boating flow releases will occur between June 16 and October 31 of each calendar year.
- 4.0 <u>Dam Flow Scheduling</u>
- 4.1 On advanced planned release weekends scheduled on April 1 of each year, the Licensee will end peaking operations:
 - 4.1.1 By 2000 hours on Friday on weekends when the weekly declaration is below 6000 cfs. Peaking may commence again at 2000 hours Sunday.
 - 4.1.2 By 1800 hours on the preceding Friday or 1600 hours on the preceding Saturday prior to the advanced planned release when the weekly declaration is greater than 6000 cfs. Peaking may commence again at 2000 hours the day of the advanced planned release.
- 4.2 On short-term planned release weekends the Licensee will end peaking operations:
 - 4.2.1 When the weekly declaration is greater than 4000 but less than 6000 cfs, the Licensee will end peaking by 1800 hours on the preceding Friday or 1600 hours on the preceding Saturday. Peaking may commence again at 2000 hours Sunday of the short term planned whitewater boating flows.

4.2.2 When the weekly declaration is less than 4000 cfs, the Licensee will end peaking by 2000 hours on Friday and may commence peaking again on Sunday at 2000 hours.

5.0 <u>Emergencies</u>

- 5.1 Licensee will not be required to provide whitewater boating flows during an electrical demand emergency or if the USACE Kerr facility is in a flood control mode as defined in section 10 below.
- 5.2 During droughts, the Licensee works in cooperation with the USACE to provide lower Roanoke River flows that balance the water demand needs of all basin stakeholders. Under a declared drought, the Licensee will release flows less than 2000 cfs when so directed by the USACE.
- 6.0 <u>Flow Information</u> The Licensee will provide the following:
- 6.1 A web page that addresses paddler flows.
- 6.2 A daily update of predicted load-following conditions for the next two days by 10:00 a.m. for that day and the next day.
- 6.3 A link to the USGS Roanoke Rapids flow and gage data -

http://waterdata.usgs.gov/nc/nwis/uv?02080500

6.4 A link to the USGS Halifax gage -

http://waterdata.usgs.gov/nc/nwis/uv?0208062765

- 6.5 The dates of the long range planned weekend releases.
- 6.6 The USACE weekly flow declaration.
- 7.0 Monitoring, Reporting and Review of Whitewater Boating Releases
- 7.1 The Licensee will prepare an annual report of the nine weekend whitewater boating flows released during the previous season. This report will include:
 - 7.1.1 The dates of these nine weekend whitewater boating releases (indicate which dates are advanced planned versus short-term planned releases). These nine weekends for the report will include one in June and two in July, August, September and October and will be inclusive of the four advanced planned releases.
 - 7.1.2 The USACE's weekly declarations affecting each whitewater boating weekend release.
 - 7.1.3 The time that peaking ceased on the day preceding each weekend whitewater boating release day.
 - 7.1.4 The Halifax gage readings for 9:00 AM, 12:00 PM and 3:00 PM on the first day of each of the nine reported whitewater boating weekend release (the first day following peaking operation)
- 7.2 The Licensee will provide each annual report to the NCDENR Division of Water Resources, USACE, Carolina Canoe Club, City of Roanoke Rapids, Halifax County and the Commission by no later than February 15 of the year following each season of

whitewater boating releases. The report will also be posted on the web site where whitewater boating flow information is listed.

- 7.3 Within one year of the License issuance, the CMT for this article will meet to establish indicators that determine whether the objectives of this article are being met or modifications of whitewater boating releases are needed.
- 7.4 The Licensee will convene a meeting of the CMT for this Plan by February 15 of the year following the fifth year of whitewater boating releases.
 - 7.4.1 The purpose of the meeting will be to review the implementation of enhanced whitewater boating flows and identify any possible improvements.
 - 7.4.2 These meetings will be repeated every five years for the term of the license.
 - 7.4.3 The Licensee will keep minutes of these meetings and finalize them after review and approval of all attendees.
 - 7.4.4 The Licensee will file with the Commission the finalized minutes of each meeting within 30 days of the meeting.
- 7.5. If as a result of the reports reviewed and discussions at the CMT meetings the CMT agrees by consensus (as defined in the Settlement Agreement) that whitewater boating releases are not achieving the objectives of this Plan, the Licensee will revise the Plan and submit it to the Commission for its approval to improve whitewater boating.
 - 7.5.1 Any adjustments to flow releases will be recommended by the CMT.
 - 7.5.2 Any recommended flow adjustments submitted for the Commission's approval will be consistent with the limits described in section 8.0 of this Plan.
 - 7.5.3 Adjustments where appropriate will be made stepwise toward the limits described in section 8.0 of this Plan
 - 7.5.4 Any adjustments to the flow releases provided by this Plan will not be implemented until approved by the Commission.
- 7.6 If after a 5-year review cycle the CMT determines that no further flow adjustments to whitewater flow releases can be made, the Licensee may request the Commission to terminate the reporting requirements described in this Plan.
- 7.7 If changes to the river regulation rules (USACE Kerr Reservoir) or adaptive changes made through SA Appendix B Articles FL3 or FL4 (license Articles 414 and 415) occur:
 - 7.7.1 Licensee will convene a joint CMT meeting (CMTs from license Articles 414, 415 and 424) to address effects of these changes to whitewater boating releases, and seek an approach for modifying operations that can meet the objectives of Settlement Agreement Articles FL3 and /or FL4 while retaining the enhancements of RC2 as much as possible (License Articles 414, 415 and 424).
 - 7.7.2 Licensee will submit amendments pursuant to section 7.7.1 of this Plan for the Commission's approval once the CMT has reached consensus on said amendments.
 - 7.7.3 Licensee will implement amendments pursuant to section 7.7.2 of this Plan within 60 days of receiving the Commission's approval.

8.0 Limitations To the Licensee's Responsibilities

- 8.1 At the 5-year meeting to be convened pursuant to section 7.4 of this Plan, adjustments to this Plan will be recommended for the Commission's approval only if the preponderance of evidence indicates (and agreed to by consensus as defined in the Settlement Agreement) a significant improvement would be made for paddler use of the resource.
- 8.2 Maximum adjustments that will be required:
 - 8.2.1 Licensee will not be required to cease peaking operations on any Friday prior to 1700 hours local time.
 - 8.2.2 Licensee will not be required to cease peaking operations on any Saturday prior to 1600 hours local time.
- 8.3 If as a result of the impending USACE Roanoke River Basin 216 study, changes are made to the guide curve or reservoir rule of operation, (or for any other reason the USACE changes the guide curve) the CMT will meet within 6 months of implementation of new USACE operational rules and submit to the Commission for approval an amended Plan within 1 year of the implementation date of the new USACE rules. The Licensee will implement the amended Plan within 60 days of receiving approval from the Commission.

9.0 Schedule of Implementation

The Licensee will implement the whitewater boating flow releases and web page provisions of this Plan within 30 days of the Commission's approval of the Plan.

10.0 Glossary

- 10.1 Advanced Planned Release A planned flow release from the Roanoke Rapids Dam for the purpose of recreational paddling (canoe and kayak) for four specified weekends during the year, posted on the Licensee's website by April 1 of each year.
- 10.2 Cubic Feet Per Second (CFS) Volume of one cubic foot of water passing a given point in one second.
- 10.3 Electrical Demand Emergency A condition of the Licensee's power grid that potentially would lead to reduction in voltage (brownouts) or removing alternating customers from electrical service (rolling black-outs) because demand exceeds production within the Licensee's service area.
- 10.4 Flood Control The controlled release of water from the USACE Kerr dam when the level in Kerr Reservoir is in or above Zone E of the guide curve.
- 10.5 Short-term Planned Release A planned flow release from the Roanoke Rapids Dam for the purpose of recreational paddling (canoe or kayak) for any weekend from June 16 to October 31 when the weekly declaration is less than 6000 cfs.
- 10.6 USACE Weekly declaration The total amount of water the USACE allocates for release in one week, plus additional water (energy) utilized by the Licensee or Progress Energy (an investor owned electric utility serving north-central North Carolina that schedules energy from Kerr) from their storage accounts, including adjustments the USACE may make during the week. The declaration may be referred to in either

energy (MWH) or flow (cfs) units. When compared to or used to define minimum flow or target flow, the weekly declaration shall be net of evaporation, consumptive uses and local inflows into Lake Gaston and Roanoke Rapids Lake, except that water withdrawals shall not be considered consumptive uses to the extent they are supported by the release of water from dedicated storage in Kerr Reservoir.