

147 FERC ¶ 62,166
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Appalachian Power Company

Project No. 2210-238

ORDER APPROVING NON-PROJECT USE OF PROJECT LANDS
AND WATERS: WATER WITHDRAWAL EXPANSION

(May 29, 2014)

1. On October 2, 2013, Appalachian Power Company (licensee) filed an application to expand an existing water withdrawal at the Smith Mountain Pumped Storage Project (Smith Mountain Project) (FERC No. 2210).¹ The existing water withdrawal is owned by the Bedford Regional Water Authority (BRWA)² and was authorized by the Commission's Order Approving Non-Project Use of Project Lands and Waters: Water Withdrawal Increase.³ The Smith Mountain Lake Project is located on the Roanoke River in Bedford, Campbell, Franklin, and Pittsylvania counties, Virginia. The project does not occupy any federal land.

BACKGROUND

2. The existing BRWA water withdrawal extracts water from Smith Mountain Lake and is located on Lakewood Drive, south of High Point Road and west of State Route 654 in Bedford County, Virginia. The approved water withdrawal allows an annual daily average withdrawal of 2.0 million gallons per day (MGD) and a maximum withdrawal rate of 2.99 MGD. Currently, water is withdrawn through a 12-inch diameter raw water intake pipe that extends 100 feet into Smith Mountain Lake from the shoreline at the normal operating level of 795 feet National Geodetic Vertical Datum (NGVD).

LICENSEE'S FILING

3. The licensee filed its application based on a request from the BWRA to increase its water withdrawal from Smith Mountain Lake. The BWRA requests to increase the

¹ See Order Issuing New License, 129 FERC ¶ 62,201 (issued December 15, 2009).

² The BRWA was previously the Bedford County Public Service Authority.

³ See 125 FERC ¶ 62,047 (issued October 10, 2008).

annual daily average withdrawal to 6.0 MGD and the maximum daily withdrawal rate to 12 MGD. In addition, the maximum annual withdrawal would be limited to 2,306 million gallons (MG) and the maximum monthly withdrawal would be limited to 288 MG. These rates are stipulations of the Virginia Water Protection Permit (VWP Permit) issued by the Virginia Department of Environmental Quality (Virginia DEQ) to the BWRA for the water withdrawal. The permit is included as an attachment to the licensee's application.

4. In order to increase the withdrawal capacity, the licensee would grant permission to BRWA to install two new 30-inch diameter intake pipes adjacent to the existing water withdrawal pipes. The pipes would extend approximately 100 to 125 feet into Smith Mountain Lake. One pipe would be connected to an upper intake with a centerline at elevation 780 feet NGVD. The other pipe would be connected to a lower intake with a centerline at elevation 772 feet NGVD (more than 4 feet off the bottom of the reservoir). The intake screens would have openings not wider than 1 millimeter and have a maximum through screen intake velocity of 0.50 feet per second or less. The intake pipes would provide raw water to a pump station located outside the project boundary.

CONSULTATION

5. As part of the review process for the VWP Permit and in support of the licensee's application, the following entities were provided an opportunity to comment on the proposed water withdrawal increase: Virginia DEQ, Virginia Department of Game and Inland Fisheries, Virginia Department of Conservation and Recreation, Virginia Department of Health, Virginia Marine Resources Commission, Virginia Department of Historic Resources, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Tri-County Relicensing Committee, Tri-County Lake Administration, Leesville Lake Association, Association of Lake Area Communities, Staunton River Watch, Citizens for Preservation of the River, Dominion Power Company, adjacent property owners, and the following counties in Virginia: Franklin, Pittsylvania, Bedford, and Campbell. In addition, two separate public meetings were held regarding the proposed water withdrawal increase.

6. Comments and questions received regarding the permit were addressed during the VWP Permit process. Comments received on the licensee's application were minor and were addressed in the amendment application.

COMMISSION'S PUBLIC NOTICE

7. On November 20, 2013, the Commission issued a public notice of the amendment application. Only one entity, Bedford Weaving, Inc., provided comments on the application. By letter filed February 3, 2014, Bedford Weaving, Inc. withdrew its comments on the application.

ENVIRONMENTAL REVIEW

8. No concerns regarding environmental impacts of the proposed expansion of the water withdrawal have been identified or raised by the resource agencies or other consulted entities. To analyze the environmental impacts of the proposed expansion of the water withdrawal, Commission staff reviewed the licensee's environmental assessment included in the application; the VWP Permit; and the Final Environmental Impact Statement (FEIS) for the relicensing of the project, issued August 7, 2009. The FEIS included an analysis of the environmental impacts of both current and projected (future) water withdrawals from project waters.

9. Based on the review of available information, staff concludes that there are no historic resources, cultural resources, or threatened or endangered species present in the affected area. Therefore, there would be no impacts to these resources and they are not discussed further.

Recreation

10. The intake structure would be located no higher than elevation 782 feet NGVD which is 13 feet below the normal water surface elevation of 795 feet NGVD and more than 5 feet below the lowest recorded surface water elevation (which was 787.6 feet NGVD and occurred in January, 1970). In addition, there have been no reported impacts to recreation caused by the existing water withdrawal facility. Therefore, staff concludes that there will be no impact to recreation as a result of the proposed expansion.

Fisheries and Aquatic Life

11. The VWP Permit requires the intake screen openings to be less than 1 millimeter and the intake velocity through the screens to have a maximum velocity of 0.50 feet per second in order to minimize the impingement and entrainment of fish eggs, larvae and other aquatic life. These design features are included in the application; therefore, impacts to fish and aquatic life during operation of the intakes would be negligible.

12. In order to avoid impacts to nesting largemouth bass, the Shoreline Management Plan⁴ for the project and the VWP Permit do not permit any construction activities between February 15 and June 15. The licensee's application incorporates this construction restriction. Although some fish may be temporarily displaced during the construction activities, the proposed amendment will have no major or long-term impacts to fisheries resources.

⁴ See Order Modifying and Approving Updated Shoreline Management Plan, 146 FERC ¶ 62,083 (issued January 30, 2014).

Terrestrial Resources

13. The proposed intake facilities would be located in a previously disturbed area of the shoreline which is currently covered by riprap. Therefore, there are no anticipated impacts to vegetation or terrestrial resources.

Water Quality

14. Construction of the new intake facilities has the potential to impact water quality through disturbance of soils on the shoreline and within the reservoir. The VWP Permit requires, and the licensee's application includes the following provisions to minimize or avoid impacts to water quality: 1) all excavation, dredging, or filling of surface waters must be accomplished in a manner that minimizes reservoir bottom disturbance and turbidity; 2) construction or waste materials must be prevented from entering surface waters; 3) all fill material placed in surface waters must be clean and free of contaminants; 4) measures to prevent and contain spills of fuels, lubricants, or other pollutants must be in place; and 5) any instream construction features such as cofferdams must be made of non-erodible materials. Implementation of these measures should minimize or avoid any impacts to water quality from the proposed expansion of water withdrawal facilities.

Reservoir Elevations and Minimum Flows

15. The existing intake (described above) is currently the only domestic water withdrawal in Smith Mountain Lake. The FEIS for relicensing the project included an analysis of the impacts of projected (future) water withdrawals on reservoir elevations and the ability to meet downstream minimum flow requirements. Of particular concern during the relicensing was the impact that water withdrawals could have during drought conditions.

16. The results of the analysis indicated that at a total withdrawal amount up to 12.5 MGD could be sustained without impacting reservoir elevations or the ability to meet minimum flow requirements, even during drought conditions. The analysis concluded that a water withdrawal of 12.5 MGD would result in an additional drop of 2.73 to 3.23 inches in the reservoir elevation for Smith Mountain Lake during an extended drought period.

17. In addition, the Water Management Plan⁵ for the Smith Mountain Project includes specific provisions for responding to drought conditions. In particular, the Water Management Plan requires the licensee to use an Operations Model to forecast future

⁵ See Order Modifying and Approving Water Management Plan 135 FERC ¶ 62,058 (issued April 19, 2011).

Smith Mountain Lake levels and adjust downstream flow releases based on the probability of Smith Mountain Lake elevations reaching certain levels (trigger conditions) in the future. Under the VWP Permit for the water withdrawals proposed by BRWA, if the licensee declares a "Trigger 3" drought event as defined by the Water Management Plan, or if the Commonwealth of Virginia declares a drought in the project area or Roanoke River basin, the BRWA would be required to implement certain water conservation measures. These provisions would help minimize the impact that the requested water withdrawal would have on project operations during drought conditions.

18. Based on the information and conditions contained in the VWP Permit, the analysis included in the FEIS, and because BRWA's withdrawal rate under the proposed expansion would be less than 12.5 MGD, we conclude that the withdrawal expansion is not expected to impact project operations or the licensee's ability to meet minimum flow requirements.

CONCLUSION

19. The licensee's application for a non-project use of project lands to increase the capacity of BRWA's water withdrawal would enable the BRWA to provide water for consumption to meet the domestic water needs of the surrounding communities. The application includes appropriate provisions to minimize or avoid impacts to environmental resources. Based on an independent review of the application and supporting analysis, Commission staff concludes that expanding the raw water intake, as described in the licensee's application, would not constitute a major federal action significantly affecting the quality of the human environment.

20. In order to monitor the specific location of the approved facilities, ordering paragraph (B) requires the licensee to provide geographical location point data to the Commission.

The Director orders:

(A) The Appalachian Power Company's (licensee), request for a non-project use of project lands for a water withdrawal expansion, filed October 2, 2013, for the Smith Mountain Pumped Storage Project (FERC No. 2210), is approved.

(B) Within 45 days of the issuance date of this order, the licensee shall file location point data representative of the approved intake facility. The location point must be positionally accurate to comply, at a minimum, with National Map Accuracy Standards for maps at a 1:24,000 scale. The location point must include latitude/longitude in decimal degrees, based on the horizontal reference datum of the North American Datum of 1983 (NAD 83).

(C) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. § 8251 (2012), and the Commission's regulations at 18 C.F.R. § 385.713 (2013). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The licensee's failure to file a request for rehearing shall constitute acceptance of this order.

for Steve Hocking
Chief, Environmental Review Branch
Division of Hydropower Administration
and Compliance

Document Content(s)

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