

UNITED STATES OF AMERICA 118 FERC ¶ 62,149
FEDERAL ENERGY REGULATORY COMMISSION

Appalachian Power Company

Project No. 2210-148

ORDER AMENDING SHORELINE MANAGEMENT PLAN

(Issued February 23, 2006)

On January 24, 2007, Appalachian Power Company (AEP or licensee) filed a request to amend its approved shoreline management plan (SMP) for the Smith Mountain Pumped Storage Project, FERC No. 2210.¹ Specifically, the licensee requests authorization to permit in-water construction to occur in areas other than those identified as Conservation/Environmental or Impact Minimization Zone from February 15 to June 15 each year. The project is located on the Roanoke and Blackwater Rivers in Bedford, Campbell, Pittsylvania, and Franklin Counties, Virginia.

BACKGROUND

On September 2, 2003, the licensee filed an application for Commission approval of its SMP for the project. By Order Modifying and Approving Shoreline Management Plan issued July 5, 2005, the Commission approved the SMP with modifications. One of these modifications regarded a time-of-year restriction for in-water construction. Specifically, ordering paragraph (D) stated that “all in-water construction, except pile driving and associated above water dock construction activities, is prohibited from February 15 through June 15. Pile driving and associated in-water dock construction activities are prohibited from April 15 to June 15. Installation or maintenance of navigational markers is exempt from these time-of-year restrictions.” The purpose of this restriction was to protect fish and fish habitat during spawning and rearing seasons. The

¹ Order Modifying and Approving Shoreline Management Plan, issued July 5, 2005, (112 FERC ¶ 61,026) and Order Denying Rehearing, issued November 17, 2005 (113 FERC ¶ 61,168).

Tri-County AEP Relicensing Committee (Relicensing Committee) filed a timely request for rehearing, in part, regarding the time-of-year restrictions.

In the rehearing order issued on November 17, 2005,² the Commission noted that as part of its relicensing proceeding, AEP developed a littoral zone habitat and fish spawning and rearing assessment study. The objectives of this study are to: (1) identify and quantify the amount of littoral zone habitats available in Smith Mountain and Leesville lakes; (2) determine the effects of littoral zone construction activities on littoral zone habitats as it relates to fish spawning and rearing success in Smith Mountain and Leesville lakes; and (3) determine potential measures to minimize and/or mitigate the effects of construction activities on littoral zone habitats and fish spawning and rearing. If this study demonstrates that the time-of-year restrictions are not needed to mitigate potential impact to the egg nests, the Commission would revisit the issue at that time. On March 16, 2006, AEP filed a request to amend its approved SMP to allow pile driving and associated above water dock construction activities currently being prohibited annually between April 15 and June 15. On April 14, 2006, the Commission amended the SMP to state: "All in-water construction, except pile driving and associated above water dock construction activities, is prohibited from February 15 through June 15. Pile driving shall include the removal of existing piles necessary for construction of the associated facility and be limited to piling installed utilizing impact equipment. The licensee shall ensure that, prior to the planned pile driving, the locations of the proposed piles be inspected for the presence of a largemouth bass nest. If a largemouth bass nest is detected where a proposed pile would be driven, the proposed pile shall be relocated to a nest free area or the pile-driving work shall be delayed until after June 15."³LICENSEE'S FILING

The licensee states that recent discussions regarding the in-water restrictions along with other information provided to the licensee have highlighted the need to reconsider the restrictions imposed by the July 5, 2005, and April 14, 2006 orders. The licensee specifically requests that ordering paragraph (D) of the July 5, 2005 order and ordering paragraph (A) of the April 14 order be further modified to read as follows: "All in-water construction, within areas identified as "Conservation/Environmental" or "Impact Minimization Zone" within the Shoreline Management Plan as currently exists or as modified in the future shall be prohibited from February 15 through June 15. In-water

² See Order Denying Rehearing (113 FERC ¶ 61,168).

³ See Order Amending Shoreline Management Plan (115 FERC ¶ 62,071).

construction will be permitted in all other areas identified within the Shoreline Management Plan. During the period from April 15 through June 15, the licensee shall ensure that prior to the work taking place, the locations of the proposed work be inspected for the presence of largemouth bass nests. If a largemouth bass nest is detected where the work is to take place, the work shall be modified to not disturb the nest or the work delayed until after June 15.”

AEP included with its filing an interim study report , “Recommendations for the Spring Ban On In-Water Construction Activities on Smith Mountain and Leesville Lakes,” prepared by Devine, Tarbell & Associates (December 2006). This interim report includes the results to date of the littoral zone studies being completed during relicensing. The report includes several recommendations for mitigation strategies which could be implemented at Smith Mountain and Leesville lakes such as:

1. Environmentally sensitive littoral zones areas as defined in the SMP should remain prohibited from construction activities in the spring;
2. A certain percentage of woody debris (which would be removed during riprap or dock construction) should remain or be bundled, secured, and placed under docks or along riprap areas for structures;
3. Enhancement and monitoring of native submerged aquatic vegetation and emergent plant growth/plantings in construction areas should be required;
4. Dredging should still be prohibited;
5. Based on bathymetry mapping, construction should be allowed in areas where the littoral zone is relatively narrow; and
6. Construction site specifics in a written report, including type of substrate, exact location on lake, photographs, and/or any visual signs of nests before construction in the spring should be required.

The licensee has agreed to incorporate these recommendations into any permit it issues for construction of docks and other in-water construction activities. It also agrees the requirements for inspection of largemouth bass nests should remain in force.

CONSULTATION AND PUBLIC NOTICE

The licensee consulted with many parties during the preparation of the application including the Virginia Department of Conservation and Recreation (VDCR), the Virginia

Department of Game and Inland Fisheries (VDGIF), the Smith Mountain Lake Chamber of Commerce (Chamber), and the Relicensing Committee. The Relicensing Committee and the Chamber support the revision. The VDCR states that it is not convinced adequate analysis has been conducted and requests that the littoral study be continued into the 2007 spawning and rearing season to ensure there is adequate data to draw conclusions on the impact construction activities would have on the fisheries. It further recommends that construction companies that normally do riprap work be allowed to continue their scheduled activities during April 15-June 15, 2007. The VDGIF also states that the results of the littoral study to date are very general and it does not agree to drop the time-of-year restrictions for in-water construction as outlined in the SMP. The VDGIF

proposes that the Commission issue a variance for the 2007 season and that the time-of-year restrictions should be revisited once the studies have been completed and the final report approved.

The Commission issued, on January 26, 2007, a public notice of the licensee's proposed amendment and requested comments, motions to intervene and protests with a comment closing date of February 16, 2007. In a letter dated February 9, 2007, the Tri-County Lake Administration Commission endorsed the recommendation to amend the license. In a letter dated February 12, 2007, the Smith Mountain Lake Association (SMLA) stated it supported AEP's request to modify the SMP. SMLA further states that the provisions to preclude in-water construction between February 15 and June 15 within designated Impact Minimization and Conservation/Environmental areas and examining other areas for the presence of large mouth bass nests are reasonable compromises to protect shallow water habitats during spawning periods. The Department of the Interior, Office of the Secretary filed a letter on February 13, 2007, stating that it has no comment on the application.

DISCUSSION

The November 17, 2005 Order Denying Rehearing specifically noted that as part of its relicensing proceeding, the licensee developed a littoral zone habitat and fish spawning and rearing assessment study. The objectives of this study are listed above. Further, the November 2005 Order indicated that if this study demonstrates that the time-of-year restrictions are not needed to mitigate potential impact to the egg nests, the Commission will revisit the issue at that time.

During 2006, the licensee implemented portions of the littoral zone habitat study. After the initial year of study, the licensee prepared a report analyzing the results of the study completed to date (i.e., through December 2006). The report reviewed annual estimates of dock construction, riprap installation, and dredging between 2000 and 2005 around the shoreline at Smith Mountain Lake.

The report concluded that the average rate of dock construction during the 4-month construction ban period for each year between 2000 and 2005 is 94 docks at Smith Mountain Lake. The area covered by the docks and physically impacted by pilings equates to 124,502 square feet (2.86 acres) and 1,130 square feet (0.02 acres), respectively, which is relatively small when compared to the total area of littoral zone available. The limited amount of construction on Leesville Lake would have little effect on spawning success.

The licensee determined that riprap installation typically occurs at a rate of 2,282 feet per month. Over the 4-month period, riprap installation could alter approximately 9,128 feet (1.73 miles) while bulkhead installation could affect 798 feet (0.15 miles). Due to the localized nature of shoreline stabilization, the limited number of riprap installers, and the relatively small amount of shoreline impacted by construction during a 4-month period, effects from riprap and bulkhead construction of fish spawning success would be minimal.

The licensee's report was unable to determine an annual rate of dredging during the construction activity analysis, but it was found that areas as large as 3,000 square feet could have been dredged since 2000. As such, the licensee concludes that dredging during the 4-month period could have an impact on spawning fish due to the loss of substrate and possible physical removal of nests and eggs, which could lead to direct impact on fish in a given area.

As listed above, the report contains recommendations to be applied to both Smith Mountain and Leesville Lakes. The licensee's filing states that it concurs with the recommendations in the report, and further states the recommendations should be incorporated into any permit issued by the licensee for construction of docks and other in-water construction activities.

The VDCR and VDGIF both propose that a variance to the SMP be issued to allow the riprap installers to work during the 2007 restriction period if field research is coordinated with the riprap work being done during that period to better address the objectives of the littoral habitat study. The licensee, in its filing, indicates it will consult with the resource agencies and other stakeholders regarding the study as it relates to relicensing and within a work group environment determine the need for additional work to complete the study.

Smith Mountain Lake is a reservoir encompassing 26,000 acres in surface area and has 500 miles of shoreline. As indicated in the licensee's report, annual dock construction during the 4-month period each year only impacts 3 acres of littoral zone, which is extremely small in comparison to the total acreage of littoral area around the reservoir. Further, riprap installation and bulkhead installation during the 4-month period would impact only 2 miles of shoreline for those four months each year. This equates to less than 0.4 of the shoreline around Smith Mountain Lake.

In regards to dredging, the licensee indicates that dredging would still be prohibited during the 4-month period. This is one of the six mitigation strategies recommended in

the report that would be incorporated into any permit issued by the licensee for construction of docks and other in-water construction activities.

Further, the licensee states that areas delineated as conservation/environmental represent 18.19 miles of the shoreline and areas defined as impact minimization zone represent 17.29 miles of shoreline at Smith Mountain Lake. For Leesville Lake,

conservation/environmental areas represent 17 miles and impact minimization zone represent 2.6 miles of shoreline. The licensee states that it will not allow any construction during the 4-month period in these areas.

Since the licensee's proposed wording does not reflect its proposal to prohibit dredging during February 15 through June 15 (as indicated by its concurrence to include such language in any permit issued for construction), we assume the licensee would handle requests for dredging according by only granting permits for dredging outside of the February 15 through June 15 window under their permitting program. We believe this approach is appropriate and is consistent with the SMP.

The proposed restriction will provide 35 miles of shoreline protection on Smith Mountain Lake and 20 miles on Leesville Lake in areas designated in the SMP as Conservation/Environmental areas and Impact Minimization Zones during the February 15 through June 15 period as no in-water construction will be allowed. For the remainder of the shoreline, riprap and bulkhead installation will only occur, at the most, along 2 total miles of shoreline during this period each year. Since riprap and/or bulkhead installation will be spread out across small areas over the entire length of shoreline, any potential impacts from the construction work would be localized. The area associated with the amount of riprap/bulkhead installation and the area associated with dock construction which will occur around the reservoir during the 4-month period is very minimal in comparison to the available habitat around the reservoir for fish spawning and rearing.

Given the total length of shoreline around the reservoir (500 miles) and the large amount of available spawning habitat around the reservoir that will not be impacted by construction during the 4-month period, we conclude there will be minimal impact to fish and/or fish habitat at Smith Mountain Hydroelectric Project as a result of riprap or bulkhead installation during the February 15 through April 15 period.

The licensee, along with the relicensing working group, plan to collect additional information in 2007 to determine the effects of in-water construction activities. The licensee is already providing, in annual filings with the Commission, reports on activities it approves under the SMP. These reports will allow Commission staff to verify that the rate of installation of docks, riprap, and/or bulkhead structures occurring each year is consistent with the rate of installation that has occurred between 2000 and 2005. If annual rates of installation stay consistent through the term of the project license, it is not likely there will be any negative impacts to fish and/or fish populations as a result of in-water construction.

In the event that results from the efforts conducted in 2007 to collect additional information, or if information becomes available thereafter through the term of the current license, that indicates impacts are occurring to fish and/or fish habitat as a result of the in-water construction during the February 15 through June 15 period and the license and the working group determine that revisions to the restrictions are necessary based on the newly acquired information, the licensee could request the Commission modify the restrictions accordingly. The licensee's proposed revision should, therefore, be approved through the term of license.

The Director orders:

(A) Ordering paragraph (D) of the July 5, 2005 Order Modifying and Approving Shoreline Management Plan for the Smith Mountain Lake Project (FERC No. 2210) and ordering paragraph (A) of the April 14, 2006 Order Amending Shoreline Management Plan are modified to read as follows:

All in-water construction, within areas identified as "Conservation/Environmental" or "Impact Minimization Zone" within the Shoreline Management Plan as currently exists or as modified in the future shall be prohibited from February 15 through June 15. In-water construction will be permitted in all other areas identified within the Shoreline Management Plan. During the period from April 15 through June 15, the licensee shall ensure that prior to the work taking place, the locations of the proposed work be inspected for the presence of largemouth bass nests. If a largemouth bass nest is detected where the work is to take place, the work shall be modified to not disturb the nest or the work delayed until after June 15.

(B) The licensee shall include in its permit provisions to state that:

1. Environmentally sensitive littoral zones areas as defined in the shoreline management plan shall remain prohibited from construction activities in the spring;
2. A certain percentage of woody debris (which would be removed during riprap or dock construction) should remain or be bundled, secured, and placed under docks or along riprap areas for structures;
3. Enhancement and monitoring of native submerged aquatic vegetation and emergent plant growth/plantings in construction areas shall be required;
4. Dredging shall prohibited from February 15 to June 15;

5. Based on bathymetry mapping, construction shall be allowed in areas where the littoral zone is relatively narrow; and

6. Construction site specifics in a written report, including type of substrate, exact location on lake, photographs, and/or any visual signs of nests before construction in the spring shall be required.

(C) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR § 385.713.

Joseph D. Morgan
Director
Division of Hydropower Administration
and Compliance