WATER QUALITY MONITORING CONCEPTUAL PLAN

R.L. Harris Hydroelectric Project

FERC No. 2628

HARRIS DAM RELICENSING

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June 2022

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1 INTRODUCTION

On June 29, 2021, Alabama Power filed its Preliminary Licensing Proposal (PLP) for relicensing the R.L. Harris Hydroelectric Project (FERC No. 2628). In the PLP, Alabama Power indicated it would develop and implement a Water Quality Management Plan to monitor compliance with its water quality requirements. On October 1, 2021, Federal Energy Regulatory Commission (FERC) staff issued a letter to Alabama Power commenting on the PLP. In this letter, FERC staff required Alabama Power to develop "conceptual elements" for the Water Quality Monitoring Plan that includes: (1) the goals of the monitoring; (2) anticipated water quality parameters to be monitored and methods for monitoring those parameters; (3) the number and general locations of monitoring sites; (4) provisions for reporting results and making recommendations; (5) monitoring and reporting frequency; (6) a schedule for developing and implementing the plan; (7) estimated capital and annual costs associated with the plan. The purpose of this document is to address FERC staff's requirements. Note that it is premature to provide too much detail on the Water Quality Monitoring Plan before the 401 Water Quality Certification (WQC) has been issued by the Alabama Department of Environmental Management (ADEM).

2 MONITORING GOAL

The goal of the Water Quality Monitoring Plan is to ensure compliance with applicable water quality standards and the conditions of the 401 WQC to be issued by ADEM.

3 ANTICIPATED WATER QUALITY PARAMETERS TO BE MONITORED AND MONITORING METHODS

Alabama Power proposes to monitor dissolved oxygen and water temperature year-round in the Harris Project tailrace during periods of discharge associated with generation or minimum flow releases and at two United States Geological Survey (USGS) gages on the Tallapoosa River downstream of Harris Dam for the term of the new FERC license.

4 MONITORING SITES

The number and general locations of the monitoring sites will be determined based on the requirements in ADEM's 401 WQC. Based on consultation with ADEM, Alabama Power proposes to monitor in the tailrace at the current site located approximately 800 feet downstream of the Harris Dam on the west bank of the river. Although not a compliance point to determine if the turbine or minimum flow discharge is meeting the state standard, Alabama Power also proposes to monitor dissolved oxygen and temperature year-round at the USGS gages on the Tallapoosa River downstream of Harris Dam:

1. Tallapoosa River at Malone (USGS Site No. 02414300)

2. Tallapoosa River at Wadley (USGS Site No. 02414500)

This would likely be accomplished through a cooperative partnership with the USGS, through which the monitoring data would be made available for use by ADEM.

5 MONITORING AND REPORTING FREQUENCY

Following license issuance and subsequent installation of the minimum flow unit, Alabama Power will provide annual tailrace monitoring data to ADEM and file with FERC following each monitoring year for the first three years. The data will be filed by February 28 for the preceding year. Following the third full year of monitoring, Alabama Power will provide a Water Quality Assessment within six months, including if additional measures are needed, to ADEM for determination if the conditions of the WQC are being met. The assessment and ADEM consultation will be filed with FERC. If after the initial three years of year-round monitoring ADEM determines that conditions of the WQC are not being met, Alabama Power will determine, in consultation with ADEM, additional ways to increase DO and file a plan with FERC for approval. In addition, at any point during the term of the license, Alabama Power and ADEM may work together to modify the year-round monitoring requirement.

Alabama Power proposes to monitor dissolved oxygen and water temperature year-round at the two USGS gages on the Tallapoosa River at Malone and Wadley for the term of the new FERC license. This would likely be accomplished through a cooperative partnership with the USGS, through which the monitoring data would be made available for use by ADEM. At any point during the term of the license, the Applicant and ADEM may work together to modify the year-round monitoring requirement.

6 SCHEDULE FOR DEVELOPING AND IMPLEMENTING THE WATER QUALITY MONITORING PLAN

Alabama Power will develop the Water Quality Monitoring Plan, consult with appropriate agencies and file for FERC approval within 6 months of license issuance.

7 ESTIMATED CAPITAL AND ANNUAL COSTS ASSOCIATED WITH THE WATER QUALITY MONITORING PLAN

Alabama Power estimates the capital cost to develop and implement the Water Quality Monitoring Plan is $65,000 and the annual operations and maintenance cost is $200,000. Operations and Maintenance costs include monitoring at the tailrace and USGS monitors year-round.