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FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426
February 4, 2022

OFFICE OF ENERGY PROJECTS

Project No. 2628-066—Alabama
R.L. Harris Hydroelectric Project
Alabama Power Company

VIA FERC Service

Reference: Summary of Technical Meeting

To the Parties Addressed:

Enclosed is a summary of the technical meeting regarding hydrologic modeling for the R.L. Harris Hydroelectric Project No. 2628-066. This meeting was publicly noticed on January 5, 2022, and held by Federal Energy Regulatory Commission staff on January 20, 2022.

Sincerely,

Allan E. Creamer

for
Stephen Bowler, Chief
South Branch
Division of Hydropower Licensing

Enclosure: Summary of technical meeting w/ list of meeting attendees

Summary of Technical Meeting for the R.L. Harris Hydroelectric Project (FERC No. 2628-066)

The technical meeting was held via teleconference on January 20, 2022, at 2:00pm.

Attendees:

Federal Energy Regulatory Commission (FERC) licensing team:
Sarah Salazar—Environmental Biologist; Relicensing Coordinator
Stephen Bowler—Chief, South Branch
Allan Creamer—Fisheries Biologist
Monte Terhaar—Engineer

FERC's WSP contract team:
Alynda Forman—Lead Scientist/ Ecologist; Project Manager
Jay Greska—Lead Engineer, Energy
Ken Hodge—Lead Civil Engineer
Bethany Belmonte—Environmental Analyst
Nicholas Funk—Environmental Analyst

Alabama Power Company representatives:
Angie Anderegg—Harris Relicensing Project Manager
Dave Anderson—Hydro Licensing Specialist
Alan Peeples—Hydro Licensing and Compliance Manager
Kenneth Odom—Principle Engineer
Stacey Graham—Senior Engineer
Amanda Fleming—Environmental Affairs Specialist
Keith Chandler—Environmental Affairs Engineer
Jason Moak—Senior Scientist (Kleinschmidt Associates)
Michael Hross—Project Engineer (Kleinschmidt Associates)
Kelly Schaeffer—Principal Consultant (Kleinschmidt Associates)
Sandra Wash—Associate Scientist (Kleinschmidt Associates)

U.S. National Park Service (NPS):
Jeff Duncan—SE Region Hydropower Coordinator

Alabama Dept. of Conservation and Natural Resources:
Todd Fobian— Supervisor, Environmental Coordinator
Matthew Marshall—Assistant Chief (Management)

Alabama Rivers Alliance:
Jack West—Policy and Advocacy Director

Other Stakeholders:
Donna Matthews –Downstream landowner
Barry Morris—Harris Lake Association

Background:

On November 23, 2021, Alabama Power filed an application to relicense the R.L. Harris Hydroelectric Project (Harris Project). The application includes analysis and proposals based on results of studies that involved the use of models, including the Hydrologic Engineering Center's River Analysis System (HEC-RAS) and Hydrologic Engineering Center's Reservoir System Simulation (HEC-ResSim). On December 23, 2021, Commission staff issued a letter with additional information requests (AIRs) regarding the models. Alabama Power representatives requested a teleconference so their modeling experts could address the AIRs.

Summary of teleconference:

Discussion of Commission staff's AIR #8:

- Alabama Power stated that HEC-RAS modeling files with ".p01" in the file name were part of a test run and not used in the models or analysis associated with the study plans.

- As is the case for WSP staff, Alabama Power also gets error messages during HEC-RAS model runs between .p61 and .p69. The errors relate to the large size of output files, given that the model run is coupled with a water quality simulation that runs concurrently and causes data processing delays/conflicts. To resolve this issue, Alabama Power suggested running the model and water quality simulation separately by unchecking the "Water Quality Simulation" box on the left side of the "Unsteady Flow Analysis" window. Alabama Power stated that even after decoupling the two analyses, it is normal for the model to take roughly an hour to complete a run. To run the water quality simulation, Alabama Power recommended clicking the "Water Quality Simulation" button (12th button from the left) at the top of the HEC-RAS home screen.

Discussion of Commission staff's AIR #9:

- Alabama Power stated that for the corrected water quality data, they attribute the extremely high temperature readings at the Wadley sampling location to possible exposure to air or very shallow water. High temperatures weren't deleted because Alabama Power did not have a definitive basis to eliminate the questionable data points.

- As to what data was provided to Auburn University, Alabama Power stated that it provided the corrected water quality data to Auburn University to include in its final bio-energetics modeling report, and that the models were re-run using that data. The other models and study reports used the corrected water quality data as well, except the HEC-RAS model (used to model flows in the Tallapoosa River), which used only water quality data collected by 28 loggers in 2019 and 2020.

Discussion of Commission staff's request for clarification of Alabama Power's response to AIR #33 in staff's comments on the preliminary licensing proposal issued on October 1, 2021 (*see* Alabama Power's response in the Harris Project license application, Exhibit. E, Part 1, Table 5-1, pg. E-44):

- To identify the inflection point for downstream continuous minimum flow releases that do not affect lake levels, Alabama Power used HEC-ResSim to determine effects to the reservoir elevation for continuous downstream minimum flow releases of 350 cubic feet per second (cfs), 400 cfs, and 450 cfs. In response to staff's question related to downstream flow effects, Alabama Power confirmed that, due to time limitations, HEC-RAS was not used to model the three flows identified above to determine the effect on lake levels for each flow. Thus, Alabama Power did not conduct the same downstream resource effects analyses that they had performed for 150 cfs, 300 cfs, 600 cfs, and 800 cfs continuous minimum flow alternatives.

Discussion of Alabama Power's request to clarify Commission staff's AIRs #4 and #5:

- Staff explained that we are asking about the upstream boundary conditions used in the HEC-RAS model (i.e., clarifying whether the HEC-ResSim rules were adjusted to ensure no releases less than 150 cfs/300 cfs, or if the HEC-RAS upstream hydrograph was adjusted such that any discharges less than 150 cfs/300 cfs were increased to 150 cfs/300 cfs). Commission staff noted that the release volume in acre-feet for the 150 cfs continuous minimum flow (from Aug. 1 - Dec. 31) is about 6 percent higher than for the Green Plan, with the release volume for the 300 cfs continuous minimum flow more than 18 percent higher than for the Green Plan. Alabama Power confirmed that the HEC-ResSim and HEC-RAS models were run independently to address two separate issues. Alabama Power indicated that when they established the Green Plan releases in 2005, they used real-time (actual) operations data, not output from HEC-ResSim. Therefore, the input boundary condition for HEC-RAS is not from the HEC-ResSim model output. Rather, the upstream hydrographs for the HEC-RAS model established boundary conditions whereby flows were revised to increase the discharges less than 150 cfs to 150 cfs, with a similar methodology used for the 300 cfs continuous minimum flow scenario. Alabama Power states that this approach was taken due to time constraints which would not allow for a more detailed evaluation. This approach essentially prioritizes Tallapoosa River flows over Harris Lake levels.

There were no additional comments or questions from the meeting participants.

Meeting adjourned at approximately 3:00pm.