FEDERAL ENERGY REGULATORY COMMISSION

Washington, DC 20426 March 8, 2019

OFFICE OF ENERGY PROJECTS

Project No. P-2514-186 – Virginia Byllesby-Buck Hydroelectric Project Appalachian Power Company

Subject: Scoping Document 1 for the Byllesby-Buck Hydroelectric Project, P-2514-186

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Document submitted by Appalachian Power Company (Appalachian) for relicensing the Byllesby-Buck Hydroelectric Project (FERC No. 2514) (Byllesby-Buck Project). The project consists of two developments, Byllesby and Buck, and is located on the New River in Carroll County, Virginia.

Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Commission staff intends to prepare an environmental assessment (EA), which will be used by the Commission to determine whether, and under what conditions, to issue a new license for the project. To support and assist our environmental review, we are beginning the public scoping process to ensure that all pertinent issues are identified and analyzed, and that the EA is thorough and balanced.

We invite your participation in the scoping process, and are circulating the attached Scoping Document 1 (SD1) to provide you with information on the Byllesby-Buck Project. We also are soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EA, and requesting that you identify any studies that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA for the project.

We will hold two scoping meetings for the Byllesby-Buck Project to receive input on the scope of the EA. An evening meeting will be held at 7:00 p.m. on Wednesday, April 10, 2019, at the Hampton Inn-Galax. A daytime meeting will be held at 9:00 a.m. on Thursday, April 11, 2019 at the same location. We will also visit the project facilities on Wednesday, April 10, 2019, starting at 10:00 a.m.

Project No. 2514-186

2

We invite all interested agencies, Indian tribes, non-governmental organizations, and individuals to attend one or all of these meetings. Further information on our environmental site review and scoping meetings is available in the enclosed SD1.

SD1 is being distributed to both Appalachian's distribution list and the Commission's official mailing list (see section 10.0 of the attached SD1). If you wish to be added to or removed from the Commission's official mailing list, please send your request by email to ferc.gov or by mail to: Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written or emailed requests must specify your wish to be removed from or added to the mailing list and must clearly identify the following on the first page: Byllesby-Buck Hydroelectric Project No. 2514-186.

Please review the SD1 and, if you wish to provide comments, follow the instructions in section 6.0, *Request for Information and Studies*. If you have any questions about SD1, the scoping process, or how Commission staff will develop the EA for this project, please contact Brandi Sangunett at (202) 502-8393 or brandi.sangunet@ferc.gov. Additional information about the Commission's licensing process and the Byllesby-Buck Project may be obtained from our website (www.ferc.gov) or Appalachian's licensing website, www.aephydro.com. The deadline for filing comments and study requests is **May 7, 2019.** The Commission strongly encourages electronic filings.

Enclosure: Scoping Document 1

SCOPING DOCUMENT 1 BYLLESBY-BUCK HYDROELECTRIC PROJECT

VIRGINIA

PROJECT NO. 2514-186



Federal Energy Regulatory Commission Office of Energy Projects Division of Hydropower Licensing Washington, DC

MARCH 2019

TABLE OF CONTENTS

TABL	LE OF CONTENTS	II
1.0 IN	NTRODUCTION	1
2.0 S	Resources that could be Cumulatively Affected 13 RESOURCE ISSUES 13 Geologic and Soils Resources 13 Aquatic Resources 14	
2.1 2.2 REVI	COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL	SITE
3.1	NO-ACTION ALTERNATIVE	7
3.1.1		
3.1.2		
3.2	U J 1	
3.2.1		
3.2.2		
3.3	*	
3.4	ALTERNATIVES TO THE PROPOSED ACTION	11
3.5	ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DE	ETAILED
STUD	OY	11
3.5.1	Federal Government Takeover	11
3.5.2	Non-power License	12
3.5.3	Project Decommissioning	12
ISSUI	ES	13
4.1	CUMULATIVE EFFECTS	13
4.1.1	Resources that could be Cumulatively Affected	13
4.2	RESOURCE ISSUES	13
4.2.1	Geologic and Soils Resources	13
4.2.2	Aquatic Resources	13
4.2.3		
4.2.4	Threatened and Endangered Species	
4.2.5	Recreation, Land Use, and Aesthetic Resources	
4.2.6	Cultural Resources	
4.2.7	Developmental Resources	15

5.0 PROPOSED STUDIES	16
6.0 REQUEST FOR INFORMATION AND STUDIES	19
7.0 EA PREPARATION SCHEDULE	21
8.0 PROPOSED EA OUTLINE	22
9.0 COMPREHENSIVE PLANS	24
10.0 MAILING LIST	26
APPENDIX A	1
APPENDIX B	1
LIST OF FIGURES	
Figure 1. Location of the project. (Source: Appalachian)	2
LIST OF TABLES	
Table 1. Appalachian's initial study proposals. (Source: Appalachian)	16

SCOPING DOCUMENT 1

Byllesby-Buck Hydroelectric Project, No. 2514-186

1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA), may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On January 7, 2019, Appalachian Power Company (Appalachian) filed a Pre-Application Document (PAD) and Notice of Intent to seek a new license for the Byllesby-Buck Hydroelectric Project, FERC Project No. 2514 (Byllesby-Buck Project or project).²

The Byllesby-Buck Project consists of two developments, Byllesby and Buck, and is located on the New River in Carroll County, Virginia. The average annual generation from 2012 to 2016 of the Byllesby Development was 36,906 megawatt-hours (MWh) and of the Buck Development was 30,874 MWh.

A detailed description of the project is provided in section 3.0. The location of the project is shown on figure 1. The Byllesby-Buck Project does not occupy federal lands.

The National Environmental Policy Act (NEPA) of 1969,³ the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Byllesby-Buck Project as proposed, and also consider reasonable alternatives to the licensee's proposed action. At this time, we intend to prepare an environmental assessment (EA) that describes and evaluates the probable effects, including an assessment of the site-specific and cumulative effects, if any, of the proposed action and alternatives. The EA preparation will be supported by a scoping process to ensure identification and analysis of all pertinent issues. Although our current intent is to prepare an EA, there is a possibility that an environmental impact statement (EIS) will be required. The scoping process will satisfy the NEPA scoping requirements, irrespective of whether the Commission issues an EA or an EIS.

¹ 16 U.S.C. § 791(a)-825(r) (2012).

² The current license for the Byllesby-Buck Project was issued on March 28, 1994, and expires on February 29, 2024.

³ National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2012).

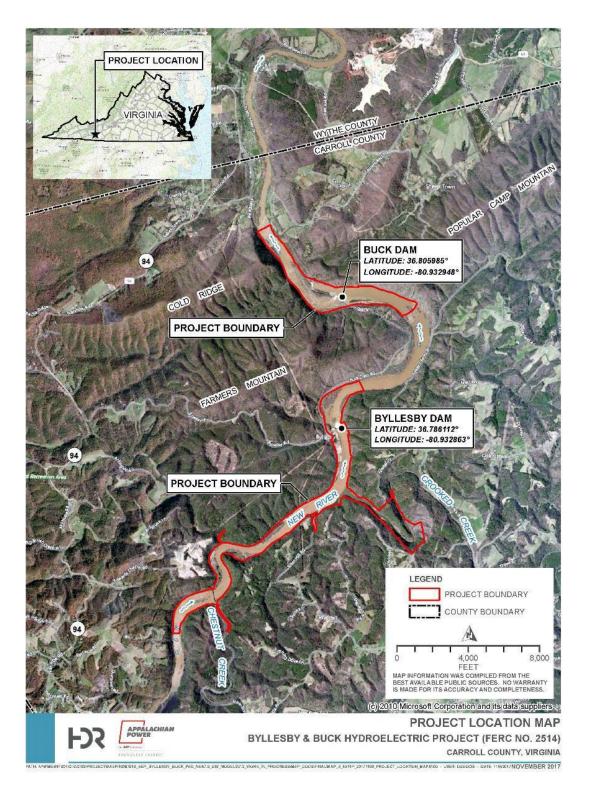


Figure 1. Location of the project. (Source: Appalachian).

2.0 SCOPING

Scoping Document 1 (SD1) is intended to advise all participants as to the proposed scope of the EA and to seek additional information pertinent to this analysis. This document contains: (1) a description of the scoping process and schedule for the development of the EA; (2) a description of the proposed action and alternatives; (3) a preliminary identification of environmental issues and proposed studies; (4) a request for comments and information; (5) a proposed EA outline; and (6) a preliminary list of comprehensive plans that are applicable to the project.

2.1 PURPOSES OF SCOPING

Scoping is the process used to identify issues, concerns, and opportunities for enhancement or mitigation associated with a proposed action. In general, scoping should be conducted during the early planning stages of a project. The purposes of the scoping process are as follows:

- invite participation of federal, state, and local resource agencies, Indian tribes, non-governmental organizations (NGOs), and the public to identify significant environmental and socioeconomic issues related to the proposed project;
- determine the resource issues, depth of analysis, and significance of issues to be addressed in the EA;
- identify how the project would or would not contribute to cumulative effects in the project area;
- identify reasonable alternatives to the proposed action that should be evaluated in the EA;
- solicit, from participants, available information on the resources at issue, including existing information and study needs; and
- determine the resource areas and potential issues that do not require detailed analysis during review of the project.

2.2 COMMENTS, SCOPING MEETINGS, AND ENVIRONMENTAL SITE REVIEW

During preparation of the EA, there will be several opportunities for the resource agencies, Indian tribes, NGOs, and the public to provide input. These opportunities occur:

- during the public scoping process and study plan meetings, when we solicit oral and written comments regarding the scope of issues and analysis for the EA;
- in response to the Commission's notice that the project is ready for environmental analysis; and
- after issuance of the EA when we solicit written comments on the EA.

In addition to written comments solicited by this SD1, we will hold two public scoping meetings and an environmental site review in the vicinity of the project. A daytime meeting will focus on concerns of the resource agencies, NGOs, and Indian tribes, and an evening meeting will focus on receiving input from the public. We invite all interested agencies, Indian tribes, NGOs, and individuals to attend one or both of the meetings to assist us in identifying the scope of environmental issues that should be analyzed in the EA. All interested parties are also invited to participate in the environmental site review. The times and locations of the meetings and environmental site review are as follows:

Evening Scoping Meeting

Date and Time: Wednesday, April 10, 2019 at 7:00 p.m.

Location: Hampton Inn-Galax

205 Cranberry Road Galax, VA 24333 Phone: (276) 238-4605

Daytime Scoping Meeting

Date and Time: Thursday, April 11, 2019 at 9:00 a.m.

Location: Hampton Inn-Galax

205 Cranberry Road Galax, VA 24333 Phone: (276) 238-4605

Environmental Site Review

Date and Time: Wednesday, April 10, 2019 at 10:00 a.m.

Location: Participants will meet at Byllesby Dam located at the intersection of

Byllesby Road and the New River Trail near Ivanhoe, VA 24350; thereafter, participants should be prepared to drive or carpool to

other locations within the project boundary.

Please RSVP via email to Elizabeth B. Parcell at ebparcell@aep.com on or before **April 3, 2019** if you plan to attend the environmental site review. Persons not providing an RSVP by April 3, 2019, will not be allowed on the environmental site review. Individuals may not access the site without escort of the facility owner, Appalachian Power Company. Also, persons attending the environmental site review must adhere to the following requirements: (1) persons must be 18 years or older; (2) persons must have a current, valid, government-issued or school photo identification (i.e., driver's license, etc.); (3) persons with open-toed shoes/sandals/flip flops/high heels, etc. will not be allowed on the environmental site review; (4) no photography will be allowed inside the powerhouses; (5) small bags containing personal items for the site visit (i.e., notebooks, maps, water, etc.) will be allowed, but are subject to search; (6) no weapons are allowed on-site; (7) no alcohol/drugs are allowed on-site (or persons exhibiting the effects thereof); (8) hard hats and safety glasses (PPE) will be required while on-site, please bring personal PPE if available, otherwise PPE will be provided; (9) no animals (except for service animals) are allowed on the environmental site review; and (10) individuals participating in the environmental site review will be required to sign a waiver of liability.

The scoping meetings will be recorded by a court reporter, and all statements (verbal and written) will become part of the Commission's public record for the project. Before each meeting, all individuals who attend, especially those who intend to make statements, will be asked to sign in and clearly identify themselves for the record. Interested parties who choose not to speak or who are unable to attend the scoping meetings may provide written comments and information to the Commission as described in section 6.0. These meetings are posted on the Commission's calendar located on the internet at www.ferc.gov/EventCalendar/EventsList.aspx, along with other related information

Meeting participants should come prepared to discuss their issues and/or concerns as they pertain to the relicensing of the Byllesby-Buck Project. It is advised that participants review the PAD in preparation for the scoping meetings. Copies of the PAD are available for review at the Commission in the Public Reference Room or may be viewed on the Commission's website (www.ferc.gov), using the "eLibrary" link. Enter the docket number, P-2514, to access the documents. For assistance, contact FERC

Online Support at <u>FERCOnlineSupport@ferc.gov</u> or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. A copy of the PAD also can be obtained from Appalachian's licensing website (http://www.aephydro.com) or be available for inspection and reproduction at the following address: Appalachian Power Company, 40 Franklin Road SW, Roanoke, Virginia, 24011.

Following the scoping meetings and comment period, all issues raised will be reviewed and decisions made as to the level of analysis needed. If preliminary analysis indicates that any issues presented in this scoping document have little potential for causing significant effects, the issue(s) will be identified and the reasons for not providing a more detailed analysis will be given in the EA.

If we receive no substantive comments on SD1, then we will not prepare a Scoping Document 2 (SD2). Otherwise, we will issue SD2 to address any substantive comments received. The SD2 will be issued for informational purposes only; no response will be required. The EA will address recommendations and input received during the scoping process.

3.0 PROPOSED ACTION AND ALTERNATIVES

In accordance with NEPA, the environmental analysis will consider the following alternatives, at a minimum: (1) the no-action alternative, (2) the applicant's proposed action, and (3) alternatives to the proposed action.

3.1 NO-ACTION ALTERNATIVE

Under the no-action alternative, the Byllesby-Buck Project would continue to operate as required by the current project license (i.e., there would be no change to the existing environment). No new environmental protection, mitigation, or enhancement measures would be implemented. We use this alternative to establish baseline environmental conditions for comparison with other alternatives.

3.1.1 Existing Project Facilities

The Byllesby Development consists of: (1) a 64-foot-high, 528-foot-long concrete dam and main spillway section topped with four sections of 9-foot-high flashboards, five sections of 9-foot-high inflatable Obermeyer crest gates, and six bays of 10-foot-high Tainter gates; (2) an auxiliary spillway including six sections of 9-foot-high flashboards; (3) a 239-acre impoundment with a gross storage capacity of 2,000 acre-feet; (4) a powerhouse containing four generating units with a total authorized installed capacity of 21.6 megawatts (MW); and (5) appurtenant facilities.

The Buck Development consists of: (1) a 42-foot-high, 353-foot-long concrete dam; (2) a 1,005-foot-long, 19-foot-high spillway section topped with 20 sections of 9-foot-high flashboards, four sections of 9-foot-high inflatable Obermeyer crest gates, and six bays of 10-foot-high Tainter gates; (3) a 66-acre impoundment with a gross storage capacity of 661 acre-feet; (4) a powerhouse containing three generating units with a total authorized installed capacity of 8.5 MW; and (5) appurtenant facilities

Each development is undergoing modification, as approved by an order amending license issued by the Commission on May 18, 2017,⁴ to replace several sections of existing wooden flashboards with inflatable Obermeyer crest gates. Once installed and operational, the available Obermeyer crest gates will serve to smooth project operation by reducing impoundment water level fluctuations and instances of inadvertent flow to the bypassed reaches and reducing the frequency of maintenance drawdowns associated with wooden flashboard failure and replacement.

⁴ 159 FERC ¶ 62,187.

3.1.2 Existing Project Operations

The Byllesby-Buck Project operates in a run-of-river mode under all flow conditions. Because the Buck Development is only about 3 miles downstream from the Byllesby Development, the operation of the two developments is closely coordinated. Buck Development operation is dependent on flows through the Byllesby Development. Under normal operating conditions, Appalachian operates the project to use available flows for powerhouse generation, and maintains the elevation of the Byllesby impoundment between 2,078.2 feet and 2,079.2 feet and the Buck impoundment between 2,002.4 feet and 2,003.4 feet. Under article 403 of the current license, Appalachian is also required to release a minimum flow of 360 cubic feet per second (cfs) or inflow to the project, whichever is less, downstream of the project powerhouses.

When inflow to either development exceeds the maximum hydraulic capacity of the turbines (5,868 cfs for Byllesby and 3,540 cfs for Buck), the Tainter gates are opened to pass the excess flow. Gate openings are planned and based on monitoring of the upstream U.S. Geological Survey (USGS) gage at Galax (#03164000) and Byllesby and Buck forebay elevations. If inflows exceed the capacity of the Tainter gates, the inflatable Obermeyer crest gates are operated to pass additional flow, followed by manual tripping of the wooden flashboards, if required. The wooden flashboards must be subsequently re-installed during a period when the impoundment is drawn down to the spillway crest elevation. During flood-stage flows, all generating units at the powerhouse may need to be shut down due to the loss of operating head. The Byllesby auxiliary spillway is operated after release of all available inflatable crest gate and wooden flashboard sections, typically at flows in excess of 46,690 cfs.

Ramping rates are required under Article 406 of the current license for the protection of fish resources downstream of the Buck spillway. The gradual reduction of flow allows fish to progressively leave the bypassed reach, versus possible stranding at sudden flow discontinuation. Following periods of spill from the Buck spillway when a spillway gate has been opened 2 feet or more, Appalachian is required to discharge flows through a 2-foot-wide gate opening for at least 3 hours. Appalachian is then required to reduce the opening to 1 foot for at least an additional 3 hours, after which Appalachian may close the gate.

Tainter gate operation and electricity generation at both Byllesby and Buck is remotely controlled from Appalachian's 24-hour control center located in Columbus, Ohio. Operators are stationed at the control center 24 hours per day, 7 days per week.

⁵ All elevations refer to National Geodetic Vertical Datum of 1929 (NGVD 29).

Plant personnel are present at the Byllesby-Buck Project during normal working hours (8 hours per day during weekday mornings and afternoons) to perform routine maintenance.

3.2 APPLICANT'S PROPOSAL

The proposed action is to continue the existing operation and maintenance of the Byllesby-Buck Project. The current license for the project expires on February 29, 2024.

3.2.1 Proposed Project Facilities and Operation

Appalachian is presently evaluating the feasibility and benefits of operating the developments with 1-foot-lower impoundment levels (i.e., still a 1-foot operating band, but with 1-foot lower normal maximum and minimum impoundment elevations) during the winter months (e.g., December through March). The purpose of the lower winter impoundment level would be to reduce the risk of overtopping project structures (and the resultant risks to the project, downstream areas, and personnel and public safety) due to ice jams on the New River, such as those that occurred at the project in January 2010. Should Appalachian propose this modification in its license application it is not expected to significantly affect project generation. No other changes to project operation or facilities are proposed at this time.

3.2.2 Proposed Environmental Measures

Appalachian proposes to continue the existing operation and maintenance of the Byllesby-Buck Project which includes the protection, mitigation, and enhancement (PM&E) measures required by the current license and subsequent amendments. These measures are described below.

Geologic and Soil Resources

• There are no existing or proposed PM&E measures related to geology and soils for the Byllesby-Buck Project. The potential need for PM&E measures will be evaluated during the relicensing process.

Aquatic Resources

• Continue operating the project in a run-of-river mode, maintaining elevation of the Byllesby impoundment between 2,078.2 feet and 2,079.2

feet and the elevation of the Buck impoundment between 2,002.4 feet and 2,003.4 feet (Article 401).

- Continue providing a minimum flow of 360 cfs, or inflow to the project, whichever is less, to the New River downstream of each powerhouse (Buck and Byllesby) to protect aquatic resources (Article 403).
- Continue implementing the existing ramping rate. for the Buck bypassed reach; whereby, following periods of spill when a spillway gate has been opened 2 feet or more, water will continue to be released into the bypassed reach through a 2-foot-gate opening for at least 3 hours, then the gate opening will be reduced to 1 foot for 3 hours before closing the gate.

Terrestrial Resources

• Continue to follow a Commission-approved Wildlife Management Plan that includes provisions to annually inspect undeveloped land within the project boundary for evidence of increased human disturbance, consult with Virginia Department of Game and Inland Fisheries (Virginia DGIF) about activities that affect these lands and notify Virginia DGIF of any unanticipated impacts within these lands, and monitor bank erosion (Article 408).

Threatened and Endangered Species

• There are no existing or proposed PM&E measures related to threatened and endangered species for the Byllesby-Buck Project. The potential need for PM&E measures will be evaluated during the relicensing process.

Recreation and Land Use

• Continue to follow a Commission-approved recreation plan and continue to provide project recreation access, monitor recreation use and demand, consult with interested stakeholders on potential recreation enhancement measures, and update the recreation plan as needed (Article 411).

⁶ 70 FERC ¶ 62,130 (1995). Order Modifying and Approving Ramping Rate Assessment Plan.

Aesthetic Resources

• There are no existing or proposed PM&E measures related to aesthetic resources for the Byllesby-Buck Project. The potential need for PM&E measures will be evaluated during the relicensing process.

Cultural Resources

• Continue to follow a Commission-approved cultural resources management plan (CRMP) and to update the CRMP with the filing of its final license application. Appalachian does not anticipate any adverse effects to cultural resources (Article 409).

3.3 DAM SAFETY

It is important to note that dam safety constraints may exist and should be taken into consideration in the development of proposals and alternatives considered in the pending proceeding. For example, proposed modifications such as the potential 1-foot-lower impoundment levels during winter, could impact the integrity of the dam structure. As the proposal and alternatives are developed, the applicant must evaluate the effects and ensure that the project would meet the Commission's dam safety criteria found in Part 12 of the Commission's regulations and the Engineering Guidelines (http://www.ferc.gov/industries/hydropower/safety/guidelines/eng-guide.asp).

3.4 ALTERNATIVES TO THE PROPOSED ACTION

Commission staff will consider and assess all alternative recommendations for operational or facility modifications, as well as PM&E measures identified by the Commission, the agencies, Indian tribes, NGOs, and the public.

3.5 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

At present, we propose to eliminate the following alternatives from detailed study in the EA.

3.5.1 Federal Government Takeover

In accordance with § 16.14 of the Commission's regulations, a federal department or agency may file a recommendation that the United States exercise its right to take over a hydroelectric power project with a license that is subject to sections 14 and 15 of the

FPA.⁷ We do not consider federal takeover to be a reasonable alternative. Federal takeover of the project would require congressional approval. While that fact alone would not preclude further consideration of this alternative, there is currently no evidence showing that federal takeover should be recommended to Congress. No party has suggested that federal takeover would be appropriate, and no federal agency has expressed interest in operating the project.

3.5.2 Non-power License

A non-power license is a temporary license the Commission would terminate whenever it determines that another governmental agency is authorized and willing to assume regulatory authority and supervision over the lands and facilities covered by the non-power license. At this time, no governmental agency has suggested a willingness or ability to take over the project. No party has sought a non-power license, and we have no basis for concluding that the Byllesby-Buck Project should no longer be used to produce power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

3.5.3 Project Decommissioning

Decommissioning of the project could be accomplished with or without dam removal. Either alternative would require denying the relicense application and surrender or termination of the existing license with appropriate conditions. There would be significant costs involved with decommissioning the project and/or removing any project facilities. The project provides a viable, safe, and clean renewable source of power to the region. With decommissioning, the project would no longer be authorized to generate power.

No party has suggested project decommissioning would be appropriate in this case, and we have no basis for recommending it. Thus, we do not consider project decommissioning a reasonable alternative to relicensing the project with appropriate environmental measures.

⁷ 16 U.S.C. §§ 791(a)-825(r).

4.0 SCOPE OF CUMULATIVE EFFECTS AND SITE-SPECIFIC RESOURCE ISSUES

4.1 CUMULATIVE EFFECTS

According to the Council on Environmental Quality's regulations for implementing NEPA (40 C.F.R. 1508.7), a cumulative effect is the effect on the environment that results from the incremental effect of the action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time, including hydropower and other land and water development activities.

4.1.1 Resources that could be Cumulatively Affected

Based on information in the PAD for the Byllesby-Buck Project, and preliminary staff analysis, we have not identified any resources that could be cumulatively affected by the proposed continued operation and maintenance of the Byllesby-Buck Project in combination with other hydroelectric projects and other activities in the New River Basin.

4.2 RESOURCE ISSUES

In this section, we present a preliminary list of environmental issues to be addressed in the EA. We identified these issues, which are listed by resource area, by reviewing the PAD and the Commission's record for the Byllesby-Buck Project. This list is not intended to be exhaustive or final, but contains the issues raised to date. After the scoping process is complete, we will review the list and determine the appropriate level of analysis needed to address each issue in the EA.

4.2.1 Geologic and Soils Resources

• Effects of continued project operation and maintenance on shoreline erosion in the impoundments at each development (Buck and Byllesby).

4.2.2 Aquatic Resources

• Effects of continued project operation and maintenance on water quality, including dissolved oxygen (DO) and water temperature,

- upstream and downstream of each development, including the Buck bypassed reach.
- Adequacy of the existing 360-cfs minimum flow for aquatic resources, including resident fish species, downstream of each development (Buck and Byllesby).
- Whether there is a need for a minimum flow (beyond leakage) in the Buck bypassed reach.
- Effects of continued project maintenance (periodic impoundment drawdowns to replace flashboards and periodic dredging to remove sediments from the impoundments) on aquatic resources, particularly freshwater mussels and fish spawning habitat in the impoundments of each development.
- Effects of continued project operation on aquatic resources, including entrainment and impingement mortality of resident fishes, such as walleye, smallmouth bass, and spotted bass at each development.
- Effects of continued project operation and maintenance on species of special concern such as the Eastern hellbender.
- Adequacy of the existing ramping rate to prevent fish stranding in the Buck bypassed reach.

4.2.3 Terrestrial Resources

- Effects of continued project operation, including impoundment fluctuations, on riparian and wetland habitat and associated wildlife.
- Effects of continued project operation and maintenance on upland wildlife habitat and associated wildlife such as bald eagles.

4.2.4 Threatened and Endangered Species

• Effects of continued project operation and maintenance on the federally listed Indiana bat, northern long-eared bat, and Virginia spiraea.

4.2.5 Recreation, Land Use, and Aesthetic Resources

- Effects of continued project operation and maintenance on recreation, land use, and aesthetics within the project area.
- Adequacy of existing recreational facilities and public access to the project to meet current and future recreational demand.

4.2.6 Cultural Resources

- Effects of project operation and maintenance on historic properties and archeological resources that are included in, eligible for listing in, or potentially eligible for inclusion in the National Register of Historic Places.
- Effects of project operation and maintenance on any previously unidentified historic or archeological resources or traditional cultural properties that may be eligible for inclusion in the National Register of Historical Places.

4.2.7 Developmental Resources

• Economics of the project and the effects of any recommended environmental measures on the project's economics.

5.0 PROPOSED STUDIES

Depending upon the findings of studies completed by Appalachian and the recommendations of the consulted entities, Appalachian will consider, and may propose certain other measures to enhance environmental resources affected by the project as part of the proposed action. Appalachian's initial study proposals are identified by resource area in table 1. Detailed information on Appalachian's initial study proposals can be found in the PAD. Further studies may need to be added to this list based on comments provided to the Commission and Appalachian from interested participants, including Indian tribes.

Table 1. Appalachian's initial study proposals. (Source: Appalachian)

Resource Area and Study Name	Proposed Study		
Geology and Soils			
Shoreline Stability Assessment	To provide updated information about existing project conditions, as well as to evaluate the need for any additional erosion control measures at specific areas of concern, Appalachian proposes to conduct a Shoreline Stability Assessment for both the Byllesby and Buck developments. Appalachian anticipates that this assessment will consist of a survey of the project impoundments to locate any sites of erosion or shoreline instability. Appalachian proposes to inventory, map, and photograph any such areas, using a scoring or ranking system (e.g., Bank Erosion Hazard Index) to try to identify areas that have the potential to erode at unnaturally high rates and to prioritize any areas where remedial action may be needed.		
Aquatic Resources			
Water Quality Study	Appalachian proposes to conduct a single season water quality study by continuously monitoring (at 15-minute		

Resource Area and Study Name	Proposed Study
	intervals) water temperature, DO, and water levels from June through October at three locations: (1) upstream of the Byllesby impoundment, (2) downstream of the Byllesby powerhouse, and (3) downstream of the Buck powerhouse. In addition, once per month from June through October, depth profiles of water temperature, DO, pH, and specific conductance will be collected at three locations within each impoundment (Buck and Byllesby). This survey would be used to gather baseline water quality data to determine consistency with applicable water quality standards and designated uses.
Bypass Reach Aquatic Habitat and Flow Assessment	Appalachian proposes to perform a desktop aquatic habitat assessment of each project bypassed reach, utilizing high resolution aerial imagery and/or Light Detection and Ranging (LiDAR) data to: (1) delineate the reach into pool, riffle, run, and shoal habitats; (2) characterize dominant substrate types; and (3) identify instream habitat types (e.g., littoral zones, hard structure, woody debris, vegetative cover). Appalachian proposes to supplement the desktop habitat assessment described above, with limited field reconnaissance to confirm site conditions. In addition, Appalachian would collect water level logger and discharge measurements during controlled test gate openings at the spillway to develop a stage-discharge rating curve for a select location.

Resource Area and Study Name	Proposed Study
Inflatable Obermeyer Crest Gate Operational Effectiveness Evaluation	Appalachian proposes to conduct a study to confirm that operation of the project dams with the inflatable Obermeyer crest gates has the desired effects of minimizing impoundment fluctuations and instances of inadvertent spill to the bypassed reaches (especially at the Buck Development). Appalachian proposes to conduct this evaluation utilizing an operations model that has been developed for the project. Using this model, Appalachian will be able to simulate project operation with the Obermeyer crest gates installed, including instances of spills to the bypassed reach(es), impoundment level changes, and powerhouse generation for a hypothetical period of time. The level loggers to be installed in the bypassed reach(es) as part of the Bypass Reach Aquatic Habitat and Flow Assessment described above will serve to collect data about water level changes due to spillway operations. These data can be used to validate the operations model.
Recreation Resources	
Recreational Needs Assessment	Appalachian proposes to conduct a recreational assessment of the project to assess existing recreational opportunities and potential improvements to facilities. Appalachian will incorporate existing monitoring information into the study report and recommendations.

6.0 REQUEST FOR INFORMATION AND STUDIES

We are asking federal, state, and local resource agencies, Indian tribes, NGOs, and the public to forward to the Commission any information that will assist us in conducting an accurate and thorough analysis of the project-specific and cumulative effects associated with relicensing the Byllesby-Buck Project. The types of information requested include, but are not limited to:

- information, quantitative data, or professional opinions that may help define the geographic and temporal scope of the analysis (both site-specific and cumulative effects), and that helps identify significant environmental issues;
- identification of, and information from, any other EA, EIS, or similar environmental study (previous, on-going, or planned) relevant to the proposed relicensing of the Byllesby-Buck Project;
- existing information and any data that would help to describe the past and present actions and effects of the project and other developmental activities on environmental and socioeconomic resources;
- information that would help characterize the existing environmental conditions and habitats;
- the identification of any federal, state, or local resource plans, and any future project proposals in the affected resource area (e.g., proposals to construct or operate water treatment facilities, recreation areas, water diversions, timber harvest activities, or fish management programs, along with any implementation schedules);
- documentation that the proposed project would or would not contribute to cumulative adverse or beneficial effects on any resources. Documentation can include, but need not be limited to, how the project would interact with other projects in the area and other developmental activities; study results; resource management policies; and reports from federal and state agencies, local agencies, Indian tribes, NGOs, and the public;
- documentation showing why any resources should be excluded from further study or consideration; and

• study requests by federal and state agencies, local agencies, Indian tribes, NGOs, and the public that would help provide a framework for collecting pertinent information on the resource areas under consideration necessary for the Commission to prepare the EA/EIS for the project.

All requests for studies filed with the Commission must meet the criteria found in Appendix A, *Study Plan Criteria*.

The requested information, comments, and study requests should be submitted to the Commission no later than May 7, 2019. All filings must clearly identify the following on the first page: Byllesby-Buck Project (P-2514-186). Scoping comments may be filed electronically via the Internet. See 18 C.F.R. 385.2001(a)(1)(iii) and the instructions on the Commission's website http://www.ferc.gov/docs-filing/efiling.asp. Commenters can submit brief comments up to 6,000 characters, without prior registration, using the eComment system at http://www.ferc.gov/docs-filing/ecomment.asp. You must include your name and contact information at the end of your comments. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. Although the Commission strongly encourages electronic filing, documents may also be paper-filed. To paper-file, please send a paper copy to: Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426.

Register online at http://www.ferc.gov/esubscription.asp to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at ferc.gov.

Any questions concerning the scoping meetings, site visits, or how to file written comments with the Commission should be directed to Brandi Sangunett at (202) 502-8393 or brandi.sangunett@ferc.gov. Additional information about the Commission's licensing process and the Byllesby-Buck Project may be obtained from the Commission's website, www.ferc.gov.

7.0 EA PREPARATION SCHEDULE

At this time, we anticipate the need to prepare an EA. The EA will be sent to all persons and entities on the Commission's service and mailing lists for the Byllesby-Buck Project. The EA will include our recommendations for operating procedures, as well as PM&E measures that should be part of any license issued by the Commission. All recipients will then have 30 days to review the EA and file written comments with the Commission. All comments on the EA filed with the Commission will be considered in preparation of any license order. A schedule for the EA preparation will be provided after a license application is filed.

The major milestones, with pre-filing target dates are as follows:

Major Milestone	Target Date
Scoping Meetings	April 2019
License Application Filed	February 2022
Ready for Environmental Analysis Notice Issued	
Deadline for Filing Comments, Recommendations, and	
Agency Terms and Conditions/Prescriptions	
Single EA Issued	
Comments on EA Due	
Deadline for Filing Modified Agency Recommendations	
Order Issued	

A copy of Appalachian's process plan, which has a complete list of relicensing milestones for the Byllesby-Buck Project, including those for developing the license application, is attached as Appendix B to this SD1.

8.0 PROPOSED EA OUTLINE

The preliminary outline for the Byllesby-Buck Project EA is as follows:

TABLE OF CONTENTS
LIST OF FIGURES
LIST OF TABLES
ACRONYMS AND ABBREVIATIONS
EXECUTIVE SUMMARY

1.0 INTRODUCTION

- 1.1 Application
- 1.2 Purpose of Action and Need for Power
- 1.3 Statutory and Regulatory Requirements
 - 1.3.1 Federal Power Act
 - 1.3.1.1 Section 18 Fishway Prescriptions
 - 1.3.1.2 Section 10(j) Recommendations
 - 1.3.2 Clean Water Act
 - 1.3.3 Endangered Species Act
 - 1.3.4 Coastal Zone Management Act
 - 1.3.5 National Historic Preservation Act

Other statutes as applicable

- 1.4 Public Review and Comment
 - 1.4.1 Scoping
 - 1.4.2 Interventions
 - 1.4.3 Comments on the Application

2.0 PROPOSED ACTION AND ALTERNATIVES

- 2.1 No-action Alternative
 - 2.1.1 Existing Project Facilities
 - 2.1.2 Project Safety
 - 2.1.3 Existing Project Operation
 - 2.1.4 Existing Environmental Measures
- 2.2 Applicant's Proposal
 - 2.2.1 Proposed Project Facilities
 - 2.2.2 Proposed Project Operation
 - 2.2.3 Proposed Environmental Measures
 - 2.2.4 Modifications to Applicant's Proposal—Mandatory Conditions
- 2.3 Staff Alternative
- 2.4 Staff Alternative with Mandatory Conditions
- 2.5 Other Alternatives (as appropriate)
- 2.6 Alternatives Considered but Eliminated from Detailed Study

- 2.6.1 Federal Government Takeover of the Project
- 2.6.2 Issuing a Nonpower License
- 2.6.3 Retiring the Project
- 3.0 ENVIRONMENTAL ANALYSIS
 - 3.1 General Description of the River Basin
 - 3.2 Scope of Cumulative Effects Analysis
 - 3.3 Proposed Action and Action Alternatives
 - 3.3.1 Geologic and Soil Resources
 - 3.3.2 Aquatic Resources
 - 3.3.3 Terrestrial Resources
 - 3.3.4 Threatened and Endangered Species
 - 3.3.5 Recreation, Land Use, and Aesthetic Resources
 - 3.3.6 Cultural Resources
 - 3.4 No-action Alternative
- 4.0 DEVELOPMENTAL ANALYSIS
 - 4.1 Power and Economic Benefits of the Project
 - 4.2 Comparison of Alternatives
 - 4.3 Cost of Environmental Measures
- 5.0 CONCLUSIONS AND RECOMMENDATIONS
 - 5.1 Comprehensive Development and Recommended Alternative
 - 5.2 Unavoidable Adverse Effects
 - 5.3 Recommendations of Fish and Wildlife Agencies
 - 5.4 Consistency with Comprehensive Plans
- 6.0 FINDING OF NO SIGNIFICANT IMPACT (OR OF SIGNIFICANT IMPACT)
- 7.0 LITERATURE CITED
- 8.0 LIST OF PREPARERS

APPENDICES

A—Draft License Conditions Recommended by Staff

9.0 COMPREHENSIVE PLANS

Section 10(a)(2) of the FPA, 16 U.S.C. section 803(a)(2)(A), requires the Commission to consider the extent to which a project is consistent with federal and state comprehensive plans for improving, developing, or conserving a waterway or waterways affected by a project. The staff has preliminarily identified and reviewed the plans listed below that may be relevant to the Byllesby-Buck Project. Agencies are requested to review this list and inform the Commission staff of any changes. If there are other comprehensive plans that should be considered for this list that are not on file with the Commission, or if there are more recent versions of the plans already listed, they can be filed for consideration with the Commission according to 18 CFR 2.19 of the Commission's regulations. Please follow the instructions for filing a plan at http://www.ferc.gov/industries/hydropower/gen-info/licensing/complan.pdf.

The following is a list of comprehensive plans currently on file with the Commission that may be relevant to the Byllesby-Buck Project.

- National Park Service. The Nationwide Rivers Inventory. Department of the Interior, Washington, D.C. 1993.
- Ohio River Basin Commission. 1977. Kanawha River Basin comprehensive coordinated joint plan. Cincinnati, Ohio. July 1977.
- U.S. Fish and Wildlife Service. Canadian Wildlife Service. 1986. North American waterfowl management plan. Department of the Interior. Environment Canada. May 1986.
- U.S. Fish and Wildlife Service. n.d. Fisheries USA: the recreational fisheries policy of the U.S. Fish and Wildlife Service. Washington, D.C.
- U.S. Forest Service. 1978. Mount Rogers National Recreation Area final management plan. Department of Agriculture. Roanoke, Virginia.
- U.S. Forest Service. 2004. Revised Land and Resource Management Plan for the Jefferson National Forest. Management Bulletin R8-MB 115A. Department of Agriculture. Roanoke, Virginia.
- U.S. Forest Service. 1993. George Washington National Forest revised land and resource management plan. Department of Agriculture, Harrisonburg, Virginia.

- Virginia Department of Conservation and Recreation. The 2007 Virginia outdoors plan (SCORP). Richmond, Virginia.
- Virginia Department of Environmental Quality. 2015. Commonwealth of Virginia State Water Resources Plan. Richmond, Virginia. October 2015.
- Virginia State Water Control Board. 1986. Minimum instream flow study final report. Annadale, Virginia. February 1986.

10.0 MAILING LIST

The list below is the Commission's official mailing list for the Byllesby-Buck Project (FERC No. 2514). If you want to receive future mailings for the Byllesby-Buck Project and are not included in the list below, please send your request by email to efiling@ferc.gov or by mail to: Secretary, Federal Energy Regulatory Commission, 888 First Street, N.E., Room 1A, Washington, DC 20426. All written and emailed requests to be added to the mailing list must clearly identify the following on the first page: Byllesby-Buck Project No.2514-186. You may use the same method if requesting removal from the mailing list below.

Register online at http://www.ferc.gov/esubscribenow.htm to be notified via email of new filings and issuances related to this or other pending projects. For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov or toll free at 1-866-208-3676, or for TTY, (202) 502-8659.

Official Mailing List for the Byllesby-Buck Project

Appalachian Power Company Kenneth E. McDonough, Esq Assistant General Counsel 1 Riverside Plaza Columbus, OH 43081

Appalachian Power Company Frank Michael Simms Hydro Support Manager 40 Franklin Road Roanoke, VA 24013

Advisory Council on Historic Preservation John T Eddins 401 F Street N.W., Suite 308 Washington, DC 20001-2637

American Canal Society, Inc. William E. Trout, III, Director 3806 S. Amherst Hwy Madison Heights, VA 24572 American Whitewater Kevin Richard Colburn National Stewardship Director 1035 Van Buren Street Missoula, MT 59802

Coastal Canoeists Charles Ware, Conservation Chair PO Box 566 Richmond, VA 23218-0566

Appalachian Power Company David Mark Shirley Energy Production Supervisor 1 Riverside Plaza, 24rd Floor Columbus, OH 43215

Winston & Strawn LLP John A Whittaker 1700 K St. N.W. Washington, DC 20006-3817 Appalachian Power Company Thomas St. Pierre Associate General Counsel 1 Riverside Plaza, 29th Floor Columbus, OH 43215

Appalachian Power Company David M Shirley PO Box 2021 Roanoke, VA 24022-2121

American Electric Power Service Corporation Douglas Rosenberger Plant Manager Hydro 40 Franklin Road SW Roanoke, VA 24011

Appalachian Power Company Legal Department PO Box 16631 Columbus, OH 43216-6631

Dickenson County Board of Supervisor Mark Vanover, County Administrator PO Box 1098 Clintwood, VA 24228-1098

Federal Emergency Management Agency Regional Office 3003 Chamblee Tucker Rd Atlanta, GA 30341

U.S. Fish & Wildlife Service Region 1 David W. Sutherland, Sr 177 Admiral Cochrane Dr. Annapolis, MD 21401 Flannagan Water Authority William Stokes, Executive Director 52 Flannagan Dam Road Haysi, VA 24256

Town of Fries PO Box 452 Fries, VA 24330-0452

County of Grayson PO Box 217 Independence, VA 24348-0217

Town of Hillsville PO Box 545 Hillsville, VA 24343-0545

Historic Landmarks Commission 2801 Kensington Ave Richmond, VA 23221-2470

Jonnie B. Deel Memorial Library Shelia Phipps, Librarian PO Box 650 Clintwood, VA 24228-0650

Mt. Rogers Planning District Commission 1021 Terrace Dr Marion, VA 24354-4137

NOAA National Marine Fisheries Service Office of Program Planning & Integration NEPA Coordinator 1315 East-West Highway Silver Spring, MD 20910

Northern Virginia Region Parks Authority 5400 Ox Rd Fairfax Station, VA 22039-1022 Town of Pulaski PO Box 660 Pulaski, VA 24301-0660

Region 2000 Regional Commission Executive Director 828 Main St, Fl 18 Lynchburg, VA 24504

Town of Clintwood Donald Baker PO Box 456 Clintwood, VA 24228-0456

U.S. Army Corps of Engineers District Office 803 Front St Norfolk, VA 23510-1011

US Army Corps of Engineers Louisville District PO Box 59 Louisville, KY 40201-0059

U.S. Army Corps of Engineers Divisional Office Regulatory Branch 550 Main St; Rm 10524 Cincinnati, OH 45202-3222

U.S.Army Corps of Engineers 550 Main Street Cincinnati, OH 45202

U.S. Bureau of Indian Affairs Office of the Solicitor 1849 C Street, NW, MS 6557 Washington, DC 20240 U.S. Bureau of Indian Affairs Director, Trust Services 1849 C St NW, MS-4637 Washington, DC 20240-0001

U.S. Bureau of Land Management Land & Renewable Resources FERC Contact 1849 C St NW Washington, DC 20240

U.S. Department of Interior Office of Environmental Policy and Compliance Director 1849 C Street, N.W., MS 2430 Washington, DC 20240

U.S. Department of Interior U.S. Bureau Reclamation Michael C. Connor Esq 1849 C Street NW Washington, DC 20240-0001

U.S. Department of Interior Anthony R. Conte 300 Westgate Center Dr Hadley, MA 01035-9587

U.S. Department of Interior James Epstein 300 Westgate Center Dr Hadley, MA 01035-9587

U.S. Environmental Protection Agency Region III 1650 Arch St Philadelphia, PA 19103-2029 U.S. Environmental Protection Agency Heinz Mueller Region IV 61 Forsyth St SW Atlanta, GA 30303-8931

U.S. Fish & Wildlife Service Regional Director 300 Westgate Center Dr Northeast Regional Office Hadley, MA 01035-9587

U.S. National Park Service FERC Contact 1924 Building 100 Alabama St SW Atlanta, GA 30303-8701

U.S. National Park Service Kevin Mendik, ESQ NPS Hydro Prgm Coord 15 State Street, 10th floor Boston, MA 02109

U.S. Senate Honorable Mark Warner 475 Russell Senate Office Bldg Washington, DC 20510

U.S. Senate Honorable Tim Kaine 231 Russell Senate Office Bldg Washington, DC 20510

USDA Forest Service Ron Bush 1700 Park Ave SW Norton, VA 24273-1618 USDA Forest Service David Purser NEPA Coordinator 1720 Peachtree St NW Atlanta, GA 30309

Virginia Dept of Conservation and Recreation Division of Planning and Recreation 600 E. Main St., 24th Floor Richmond, VA 23219

Virginia Dept of Conservation and Recreation Robbie Rhur, Enviro. Program Planner 600 East Main Street, Floor 17 Richmond, VA 23219-2094

Virginia Dept of Environmental Quality Bettina Sullivan, Manager PO Box 1105 Richmond, VA 23218

Virginia Dept of Environmental Quality Director PO Box 1105 Richmond, VA 23218-1105

Virginia Dept of Environmental Quality Southwest Regional Office Jeffrey Hurst, Regional Director 355-A Deadmore St Abingdon, VA 24210

Virginia Dept of Agriculture and Consumer Services PO Box 1163 Richmond, VA 23218-1163 Virginia Department of Health Director PO Box 2448 Richmond, VA 23218-2448

Virginia Department of Historical Resources 2801 Kensington Ave Richmond, VA 23221-2470

Virginia Department of Mines, Minerals, and Energy
Director, Div. of Energy
1100 Bank St, 11th Flr
Richmond, VA 23219

Virginia Division of Mined Land Reclamation Randy Casey, Division Director PO Box 900 Big Stone Gap, VA 24219-0900

Virginia Marine Resources Commission Ben McGinnis 2600 Washington Ave Fl 3 Newport News, VA 23607 Virginia Office of Attorney General Attorney General 900 E Main St Richmond, VA 23219-3513

Virginia Soil and Water Conservation Commission Director 600 E. Main St., 24th Floor Richmond, VA 23219

Virginia State Corporation Commission Sherry H Bridewell, Senior Counsel 1300 East Main St, 10 Fl Richmond, VA 23219

Virginia Wildlife Federation Neal D Emerald, Vice President 21851 Locomotive Ter Ste 303 Sterling, VA 20166-6836

County of Wythe 275 S 4th Street 108 Country Ln Office Building Wytheville, VA 24382-4900

Town of Wytheville PO Box 533 Wytheville, VA 24382-0533

APPENDIX A STUDY PLAN CRITERIA 18 CFR Section 5.9(b)

Any information or study request must contain the following:

- 1. Describe the goals and objectives of each study proposal and the information to be obtained;
- 2. If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;
- 3. If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study;
- 4. Describe existing information concerning the subject of the study proposal, and the need for additional information;
- 5. Explain any nexus between project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements;
- 6. Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate filed season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge; and
- 7. Describe considerations of level of effort and cost, as applicable, and why proposed alternative studies would not be sufficient to meet the stated information needs.

APPENDIX B BYLLESBY-BUCK PROJECT PROCESS PLAN AND SCHEDULE

Shaded milestones are unnecessary if there are no study disputes. If the due date falls on a weekend or holiday, the due date is the following business day. Early filings or issuances will not result in changes to these deadlines.

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
Appalachian	Issue Public Notice for NOI/PAD	1/7/2019	5.3(d)(2)
Appalachian	File NOI/PAD	1/7/2019	5.5, 5.6
FERC	Tribal Meetings	2/6/2019	5.7
FERC	Issue Notice of Commencement of Proceeding and Scoping Document 1	3/8/2019	5.8
FERC	Scoping Meetings and Project Site Visit	4/10/2019, 4/11/2019	5.8(b)(viii)
All Stakeholders	File Comments on PAD/Scoping Document 1 and Study Requests	5/7/2019	5.9
FERC	Issue Scoping Document 2 (if necessary)	6/21/2019	5.10
Appalachian	File Proposed Study Plan	6/21/2019	5.11(a)
All Stakeholders	Proposed Study Plan Meeting	7/21/2019	5.11(e)
All Stakeholders	File Comments on Proposed Study Plan	9/19/2019	5.12
Appalachian	File Revised Study Plan	10/19/2019	5.13(a)
All Stakeholders	File Comments on Revised Study Plan	11/3/2019	5.13(b)
FERC	Issue Director's Study Plan Determination	11/18/2019	5.13(c)
Mandatory Conditioning Agencies	File Any Study Disputes	12/8/2019	5.14(a)
Dispute Panel	Select Third Dispute Resolution Panel Member	12/23/2019	5.14(d)

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
Dispute Panel	Convene Dispute Resolution Panel	12/28/2019	5.14(d)(3)
Appalachian	File Comments on Study Disputes	1/2/2020	5.14(i)
Dispute Panel	Dispute Resolution Panel Technical Conference	1/7/2020	5.14(j)
Dispute Panel	Issue Dispute Resolution Panel Findings	1/27/2020	5.14(k)
FERC	Issue Director's Study Dispute Determination	2/16/2020	5.14(1)
Appalachian	First Study Season	Spring - Fall 2020	5.15(a)
Appalachian	File Initial Study Report	11/17/2020	5.15(c)(1)
All Stakeholders	Initial Study Report Meeting	12/2/2020	5.15(c)(2)
Appalachian	File Initial Study Report Meeting Summary	12/17/2020	5.15(c)(3)
All Stakeholders	File Disagreements/Requests to Amend Study Plan	1/16/2021	5.15(c)(4)
All Stakeholders	File Responses to Disagreements/Amendment Requests	2/15/2021	5.15(c)(5)
FERC	Issue Director's Determination on Disagreements/Amendments	3/17/2021	5.15(c)(6)
Appalachian	Second Study Season	Spring - Fall 2021	5.15(a)
Appalachian	File Preliminary Licensing Proposal (or Draft License Application)	10/1/2021	5.16(a)-(c)
All Stakeholders	File Comments on Preliminary Licensing Proposal (or Draft License Application)	12/30/2021	5.16(e)
Appalachian	File Updated Study Report	11/17/2021	5.15(f)
All Stakeholders	Updated Study Report Meeting	12/2/2021	5.15(f)

Responsible Party	Pre-Filing Milestone	Date	FERC Regulation
Appalachian	File Updated Study Report Meeting Summary	12/17/2021	5.15(f)
Appalachian	File Final License Application	2/28/2022	5.17
All Stakeholders	File Disagreements/Requests to Amend Study Plan	1/16/2022	5.15(f)
Appalachian	Issue Public Notice of Final License Application Filing	3/14/2022	5.17(d)(2)
All Stakeholders	File Responses to Disagreements/Amendment Requests	2/15/2022	5.15(f)
FERC	Issue Director's Determination on Disagreements/Amendments	3/17/2022	5.15(f)

20190308-3014 FERC PDF (Unofficial) 03/08/2019	
Document Content(s)	
Byllesby-Buck 2514 SD1.PDF1	39