

FEDERAL ENERGY REGULATORY COMMISSION

Washington, DC 20426

September 20, 2012

OFFICE OF ENERGY PROJECTS

Project No. 2512-069–West Virginia  
Hawks Nest Hydroelectric Project

Project No. 14439-000–West Virginia  
Glen Ferris Hydroelectric Project

Hawks Nest Hydro, LLC

**Subject: Scoping Document 1 for Hawks Nest Hydroelectric Project, P-2512 and  
Glen Ferris Hydroelectric Project, P-14439**

To the Party Addressed:

The Federal Energy Regulatory Commission (Commission) is currently reviewing the Pre-Application Document submitted by Hawks Nest Hydro, LLC (Hawks Nest Hydro) for relicensing the Hawks Nest Hydroelectric Project (Hawks Nest Project) (FERC No. 2512), and the Glen Ferris Hydroelectric Project (Glen Ferris Project) (FERC No. 14439). The Hawks Nest Project is located on the New River near Gauley Bridge, West Virginia and the Glen Ferris Project is located immediately downstream of the Hawks Nest powerhouse on the Kanawha River, which is formed by the confluence of the New and Gauley Rivers. The projects are located on private lands.

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 (SD) to provide you with information on the Hawks Nest and Glen Ferris projects. We are also soliciting your comments and suggestions on our preliminary list of issues and alternatives to be addressed in the EA. We are also 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 projects.

We will hold two scoping meetings for the Hawks Nest and Glen Ferris projects to receive input on the scope of the EA. An evening meeting will be held at 7:00 p.m. on October 17, 2012, and a daytime meeting will be held at 10:00 a.m. on October 18, 2012 at the Hawks Nest State Park Lodge, 49 Hawks Nest Park Road, Ansted, West Virginia, 25812. Commission staff will have a site visit of the project facilities on October 17 starting at 9:00 a.m.

We invite all interested agencies, Indian tribes, non-governmental organizations, and individuals to attend one or both of the meetings and to participate in the site visit. Further information on the scoping meetings and the site visit is available in the enclosed SD.

The SD is being distributed to both Hawks Nest Hydro's distribution list and the Commission's official mailing list (see section 9.0 of the attached SD). If you wish to be added to or removed from the Commission's official mailing list, please send your request by email to [efiling@ferc.gov](mailto:efiling@ferc.gov) or by mail to: Kimberly D. Bose, 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: **Hawks Nest Hydroelectric Project No. 2512-069 and/or Glen Ferris Hydroelectric Project No. 14439-000.**

Please review the SD 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 the SD, the scoping process, or how Commission staff will develop the EA for this project, please contact Monir Chowdhury at (202) 502-6736 or [monir.chowdhury@ferc.gov](mailto:monir.chowdhury@ferc.gov). Additional information about the Commission's licensing process and the Hawks Nest and Glen Ferris projects may be obtained from our website, [www.ferc.gov](http://www.ferc.gov). The deadline for filing comments is November 21, 2012. The Commission strongly encourages electronic filings.

Enclosure: Scoping Document

cc: Mailing List  
Public Files

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SCOPING DOCUMENT  
HAWKS NEST HYDROELECTRIC PROJECT  
PROJECT NO. 2512-069  
AND  
GLEN FERRIS HYDROELECTRIC PROJECT  
PROJECT NO. 14439-000  
WEST VIRGINIA

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

September 2012

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# SCOPING DOCUMENT

## **Hawks Nest Hydroelectric Project, No. 2512-069 Glen Ferris Hydroelectric Project, No. 14439-000**

### 1.0 INTRODUCTION

The Federal Energy Regulatory Commission (Commission or FERC), under the authority of the Federal Power Act (FPA),<sup>1</sup> may issue licenses for terms ranging from 30 to 50 years for the construction, operation, and maintenance of non-federal hydroelectric projects. On July 24, 2012, Hawks Nest Hydro, LLC (Hawks Nest Hydro) filed a Pre-Application Document (PAD) and Notices of Intent to seek a new license for the Hawks Nest Hydroelectric Project (Hawks Nest Project) (FERC Project No. 2512) and the Glen Ferris Hydroelectric Project (Glen Ferris Project) (FERC Project No. 14439).<sup>2</sup>

The Hawks Nest Project is located on the New River in the vicinity of the Town of Gauley Bridge, West Virginia. The Glen Ferris Project is located downstream from the Hawks Nest Project on the Kanawha River, which is formed by the confluence of the New and Gauley rivers, at the Town of Glen Ferris, West Virginia. The locations of the two projects within the New-Kanawha River watershed are shown in figure 1.

The Hawks Nest Project is operated as a run-of-river hydroelectric facility with a total plant capacity of 102 megawatts (MW) from its four turbine-generator units. The average annual generation of the Hawks Nest Project is 541,845 megawatt-hours (MWh). The Glen Ferris Project is operated as a run-of-river hydroelectric facility and has a total capacity of 5.45 MW from its eight turbine-generator units. The average annual generation of the Glen Ferris Project is 34,400 MWh. Detailed descriptions of these two projects are provided in section 3.0.

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<sup>1</sup> 16 U.S.C. § 791(a)-825(r).

<sup>2</sup> The Hawks Nest and Glen Ferris projects are currently licensed as a single Project under FERC Project Number P-2512. The current license for both projects was issued with an effective date of December 11, 1987, for a term of 30 years and expires on December 31, 2017. However, Hawks Nest Hydro intends to apply for separate licenses for the projects in its relicensing application.

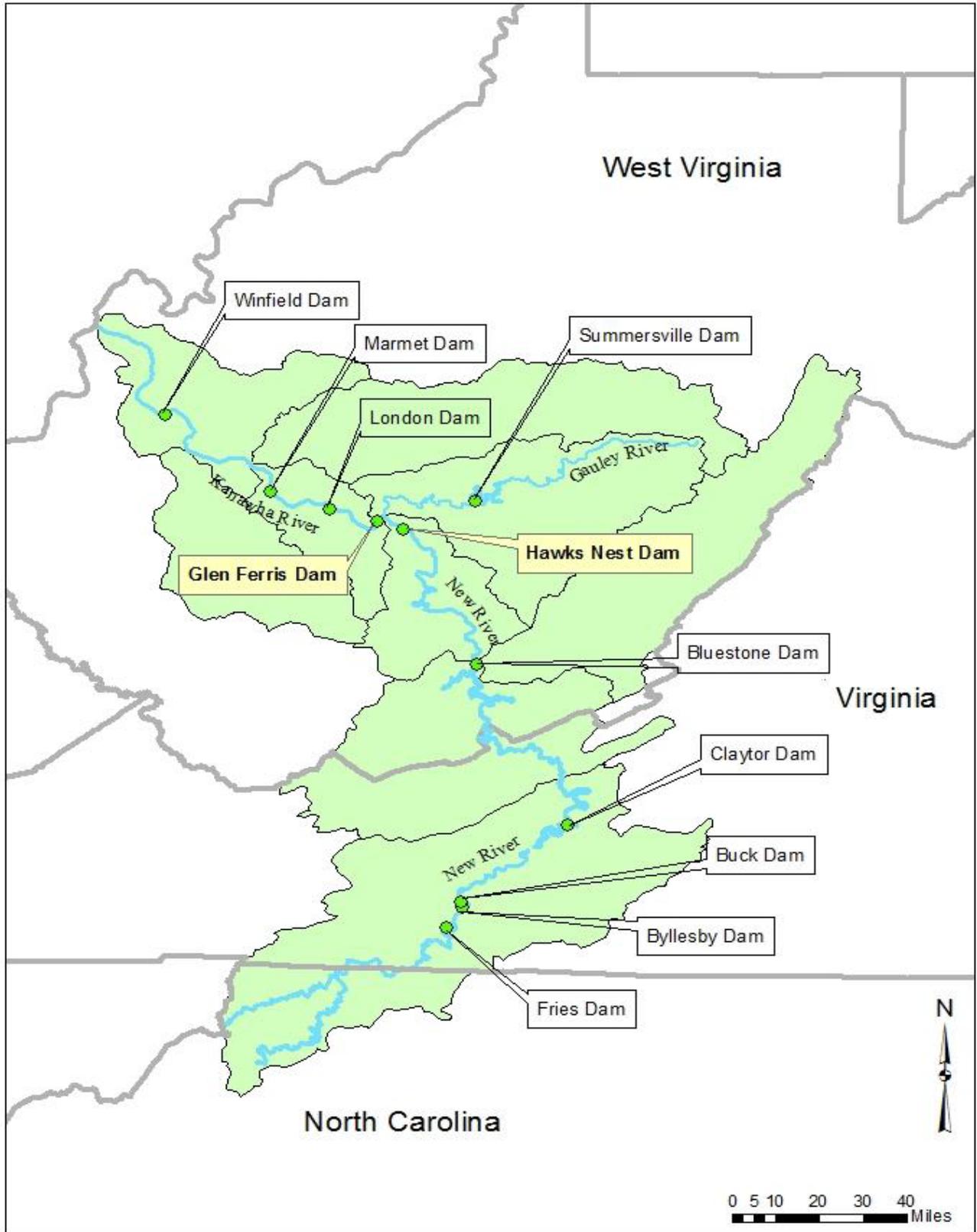


Figure 1. Location of the Hawks Nest and Glen Ferris Projects (Source: Staff).

The National Environmental Policy Act (NEPA) of 1969,<sup>3</sup> the Commission's regulations, and other applicable laws require that we independently evaluate the environmental effects of relicensing the Hawks Nest and Glen Ferris projects 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.

## **2.0 SCOPING**

This Scoping Document (SD) 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. According to NEPA, the process should be conducted early in the planning stage of the 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;

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<sup>3</sup>National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370(f) (2006).

- 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 SD, Commission staff will hold two public scoping meetings and a site visit 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. The times and locations of the meetings are as follows:

### **Evening Scoping Meeting**

Date and Time:       Wednesday, October 17, 2012, 7:00 p.m. (EST)  
 Location:             Hawks Nest State Park Lodge  
                               49 Hawks Nest Park Road, Ansted, WV 25812  
 Phone Number:       (304) 658-5212

### **Daytime Scoping Meeting**

Date and Time: Thursday, October 18, 2012, 10:00 a.m. (EST)  
Location: Hawks Nest State Park Lodge  
49 Hawks Nest Park Road, Ansted, WV 25812  
Phone Number: (304) 658-5212

### **Site Visit**

The Commission staff will conduct a site visit of the existing Hawks Nest and Glen Ferris project facilities on Wednesday morning, October 17, 2012. Participants will be responsible for providing their own method of transportation. The time and location of the site visit is as follows:

Date and Time: Wednesday, October 17, 2012, 9:00 a.m. to 12:00 p.m.  
Location: Hawks Nest and Glen Ferris Projects, Fayette County, WV  
(Meet at 9:00 a.m. at the parking lot of Hawks Nest State Park Lodge, 49 Hawks Nest Park Road, Ansted, WV 25812,  
Tel: (304) 658-5212)

Please notify David Barnhart at (304) 442-5120 Ext. 7266 or [David.Barnhart@brookfieldrenewable.com](mailto:David.Barnhart@brookfieldrenewable.com) if you plan to attend the site visit.

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](http://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 Hawks Nest and Glen Ferris projects. 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](http://www.ferc.gov)), using the "eLibrary" link. Enter the docket number, P-2512-069, to access the document for the Hawks Nest Project and P-14439-000, to access the document for the Glen Ferris Project. For assistance, contact FERC Online Support at [FERCONlineSupport@ferc.gov](mailto:FERCONlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659. For information about where copies of PADs are available for inspection and reproduction, please contact:

David Barnhart  
Director of Operations  
Brookfield Renewable Energy Group, U.S. Operations  
326 Third Avenue, Suite 201  
Montgomery, WV 25136-2200  
(304) 442-5120 Ext. 7266

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 the SD, then we will not prepare a revised SD. Otherwise, a revised SD will be issued for informational use only by all participants or interested persons; 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 Hawks Nest and Glen Ferris projects 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**

###### Hawks Nest Project

The Hawks Nest Project is located on the New River approximately 2 miles from the Town of Ansted in Fayette County, West Virginia. The dam is at river mile (RM) 103.6 on the New River and the reservoir extends upstream approximately 3 miles in a narrow valley with an average width of approximately 500 feet (figure 2).

The project consists of a 948-foot-long concrete-gravity dam with a structural height of approximately 65 feet. The reservoir created by the dam has a surface area of 243 acres and a gross storage capacity of 7,323 acre-feet at the normal pool elevation of 819.5 feet.<sup>4</sup> The reservoir provides approximately 157 feet of gross head for power generation purposes.

The dam has 14 spillway bays containing 25-foot-high by 50-foot-wide Stoney type steel lift gates. There is also a 10-foot-long trash gate at the north end of the spillway that is typically used to discharge the minimum flow. With all spillway gates fully open the reservoir can be held at a constant level of 820 feet under a total discharge capacity of approximately 335,000 cubic feet per second (cfs).

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<sup>4</sup> All elevations are referenced to mean sea level.

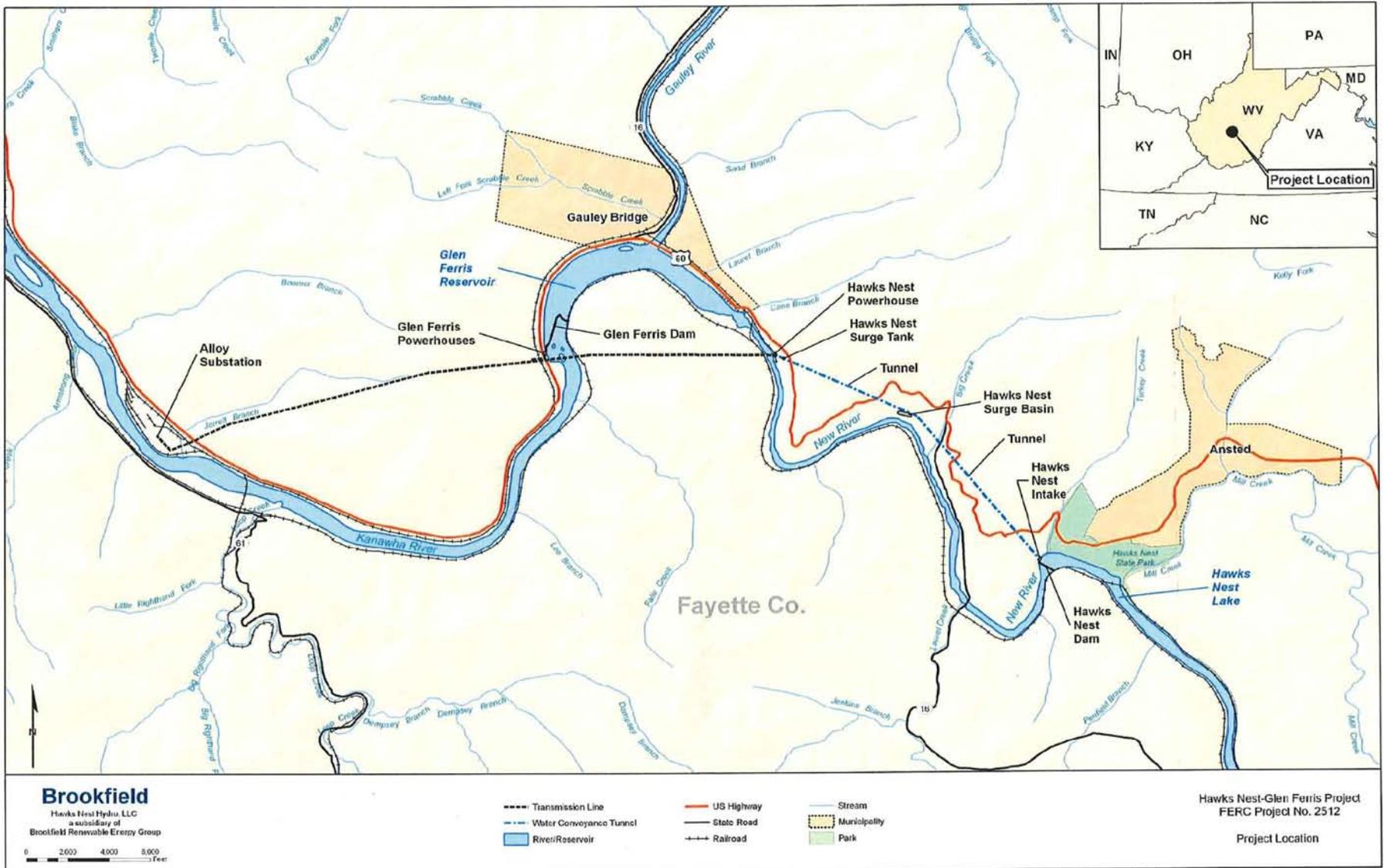


Figure 2. Project Facilities for the Hawks Nest and Glen Ferris Projects (Source: PAD).

The intake structure located at the west abutment consists of a 110-foot-wide by 50-foot-high trashrack structure and a Stoney-type 42-foot-high by 34.5-foot-wide bulkhead intake gate that sits back approximately 50 feet from the opening where the trashrack is located. Water is conveyed from the reservoir to the Hawks Nest powerhouse through a 16,240-foot-long tunnel that extends from the intake to the powerhouse downstream of the New River. The tunnel can convey a maximum of about 10,000 cfs. At a point approximately 60 percent of the distance from the intake to the powerhouse, the tunnel connects to a 600-foot-long by 170-foot-wide surge basin. At its downstream end the tunnel is connected by a vertical steel riser to a 116-foot-diameter and 56-foot-high differential surge tank. The tunnel ends at the powerhouse penstock system which includes a main 107-foot-long, 30-foot-diameter steel penstock connecting to a manifold leading to five 14-foot-diameter steel penstocks varying in length from 42 to 132 feet.

The Hawks Nest powerhouse is located on the New River approximately 1.6 miles upstream from the point where the Gauley River joins the New River to form the Kanawha River. It houses four turbine-generator units, each with a rated capacity of approximately 25.5 MW. The powerhouse was built to accommodate a fifth unit, but the fifth penstock is not currently used and blocked by a steel and concrete bulkhead. Each of the turbines is rated at 35,000 horsepower and has a maximum hydraulic capacity of 2,540 cfs. Water flowing through the tunnel, the penstock system, and then through the turbines is discharged via the draft tubes into the excavated tailrace in the New River.

Electricity generated at the project is transmitted by two parallel approximately 5.5-mile-long, 69-kilovolt (kV) transmission lines to the West Virginia Alloys, Inc., an industrial facility that produces silicon metal.

The Hawks Nest Project has a dependable capacity of 16.4 MW and generates an annual average of 541,845 MWh. Hawks Nest Hydro does not propose any new or upgraded facilities or structural changes to the project at this time.

### Glen Ferris Project

The Glen Ferris Project is located on the Kanawha River just downstream of the confluence of the New and Gauley rivers, near the Town of Glen Ferris, West Virginia.

The project consists of a low concrete dam and created a 2.2-mile-long reservoir that extends from the dam to the confluence of the New and Gauley rivers, approximately 0.3 mile below the Hawks Nest powerhouse. The reservoir has a surface area of 397 acres and a gross storage capacity of 1,500 acre-feet at the normal reservoir elevation of 651.0 feet.

The dam consists of a 2850-foot-long spillway section, a 128-foot-long five-slucice stoplog section, and two powerhouses connected by a non-overflow section of the dam. Both powerhouses are located at the west end of the dam. The dam varies in height from 3 to 12 feet above the river bed, and is founded on solid rock. The stoplog section has six concrete supporting piers, and wooden stoplogs running the full height of the dam, which is approximately 11 feet at that point. There is also an 8-foot-long by 2-foot-high wooden removable trash spillway stoplog section on each side of the east powerhouse intake.

There is an intake for each powerhouse with steel trashracks supported by concrete and cut stone at each intake. The intake for the west powerhouse includes a forebay that consists of a headwall and two sidewalls. The intake is 82.3 feet wide at the rack section, and tapers in a distance of approximately 190 feet to a width of 49 feet at the entrance to the powerhouse flumes. The intake for the east powerhouse is 62 feet wide at the trashrack section, which is an integral part of the powerhouse. The intake tapers in a distance of 23 feet to a width of 45 feet at the entrance to the flumes.

The west powerhouse is composed of steel frame and brick on a cut stone masonry structure. There are six identical turbine-generator units in the 64.5-foot by 63-foot west powerhouse. The turbines are rated at 442 horsepower each. The east powerhouse is composed of steel frame and brick on a concrete substructure. There are two identical turbine-generator units in the 54.2-foot by 38.8-foot east powerhouse. Each turbine in the east powerhouse has a rated a capacity of 2,250 horsepower. The current licensed capacity of the Glen Ferris Project is 5.45 MW (8 units) with a maximum hydraulic capacity of 3,300 cfs.

Electricity generated at the project is transmitted by a 4-mile-long 13.5-kV transmission line that connects the Glen Ferris substation to the Alloy substation south of the project.

The Glen Ferris Project has a dependable capacity of 2,490 kW and generates an annual average of 34,400 MWh. Hawks Nest Hydro does not propose any new or upgraded facilities or structural changes to the project at this time.

### **3.1.2 Existing Project Operations**

The New River system is influenced by seasonal precipitation and the operation of hydroelectric and storage projects. Table 1 lists, and figure 1 shows the major hydroelectric and storage projects on the New, Gauley and Kanawha rivers.

Table 1. Major Dams and Hydroelectric Developments in the New-Kanawha River System (Source: PAD).

<b>Project Name/Dam</b>	<b>Owner</b>	<b>River Mile</b>	<b>Installed Capacity (MW)</b>
Fries	Aquaenergy Systems	303.6	5.2
Byllesby	Appalachian Power Company	295	21.6
Buck	Appalachian Power Company	292.3	8.5
Claytor	Appalachian Power Company	248.8	75
Bluestone	U.S. Army Corps of Engineers (Corps)	162.4	No hydropower
Hawks Nest	Hawks Nest Hydro	103.57	102
Summersville/Gauley	Corps and Enel Hydro	132.3	80
Glen Ferris	Hawks Nest Hydro	95.5	5.45
London	Appalachian Power Company	82.8	14.4
Marmet	Appalachian Power Company	67.7	14.4
Winfield	Appalachian Power Company	31.1	14.76

### Hawks Nest Project

The Hawks Nest Project is operated as a run-of-river hydroelectric project. As required by the existing license, a minimum flow of 100 cfs is released through the trash gate at the dam and maintained continuously in the 5.5-mile-long bypassed reach of the New River downstream of the dam prior to diverting flow through the tunnel for hydropower generation. During low-flow periods, the minimum flow is passed through the dam and the remaining flow is diverted to the powerhouse. During high flows, the excess flow defined as the difference in New River inflow and the combined minimum bypass and generation flow, is released through the spillway gates.

Under normal operation, the reservoir elevation is maintained between 819.0 to 819.5 feet, and there is no usable storage capacity. Spillway gate operations follow an approved ramping rate schedule between March 1 and October 31 when river flows are less than 12,600 cfs, for downstream safety and aquatic habitat purposes.

### Glen Ferris Project

The Glen Ferris Project is operated as a run-of-river hydroelectric project for all flow conditions and has no usable storage capacity. Kanawha River inflow in excess of the generation discharge capacity is automatically spilled over the crest of the dam. The entire length of the Glen Ferris Dam is considered an un-gated and free overflow dam. The combined discharge through the powerhouse and any spillage over the dam equals the inflow to the project's reservoir at all times. Under high river flow conditions, the eight available hydro units are dispatched to maximum generation with the balance of flow automatically spilling over the crest of the dam.

## **3.2 APPLICANT'S PROPOSAL**

The proposed action is to continue to operate and maintain the Hawks Nest and Glen Ferris projects on the New and Kanawha rivers, respectively, and implement certain environmental protection, mitigation, and enhancement measures. Hawks Nest Hydro proposes no new developments or changes in project operation at this point in the licensing process. The current license for the projects expires on December 31, 2017.

### **3.2.1 Proposed Project Facilities and Operations**

#### Hawks Nest Project

No new or upgraded facilities, structural changes, or operational changes to the Hawks Nest Project during the term of the new license are proposed at this time.

#### Glen Ferris Project

No new or upgraded facilities, structural changes, or operational changes to the Glen Ferris Project during the term of the new license are proposed at this time.

### **3.2.2 Proposed Environmental Measures**

Hawks Nest Hydro identified measures to protect and enhance environmental resources of the project areas. Hawks Nest Hydro proposes to continue operating the Hawks Nest and Glen Ferris projects with the environmental protection, mitigation, and enhancement measures described in the following section.

#### **Geologic and Soil Resources**

##### Hawks Nest and Glen Ferris Projects

There are no existing or proposed protection, mitigation, and enhancement (PM&E) measures related to geology and soils for the Hawks Nest and Glen Ferris projects. The potential need for PM&E measures will be evaluated during the relicensing process.

## **Aquatic Resources**

Hawks Nest Hydro has implemented a number of measures to protect, mitigate, or enhance aquatic resources in accordance with current license requirements.

### Hawks Nest Project

#### *Existing Measures*

- Provide annual fish mortality compensation payments to the West Virginia Department of Natural Resources (West Virginia DNR) as part of a Fisheries Compensation Plan to mitigate for turbine-induced impacts to fish.
- Maintain run-of-river operation.
- Maintain reservoir elevation between 819.0 feet and 819.5 feet.
- Maintain a minimum downstream flow release of 100 cfs through the trash gate at the dam into the bypassed reach.
- Maintain a ramping rate for discharges into the bypassed reach between March 1 and October 31, such that water levels at Cotton Hill Bridge (1.5 miles downstream of the dam) change at a rate of no more than 1.0 foot per hour.

#### *Proposed Measures*

Hawks Nest Hydro proposes to continue implementing the aquatic resources measures provided during the current license term.

### Glen Ferris Project

#### *Existing Measures*

- Provide annual fish mortality compensation payments to the West Virginia DNR as part of a Fisheries Compensation Plan to mitigate for turbine-induced impacts to fish.
- Maintain run-of-river operation.
- Maintain a normal reservoir elevation of 651.0 feet.

#### *Proposed Measures*

Hawks Nest Hydro proposes to continue implementing the aquatic resources measures provided during the current license term.

### **Terrestrial Resources**

#### Hawks Nest and Glen Ferris Projects

There are no existing or proposed PM&E measures related to terrestrial resources for the Hawks Nest or Glen Ferris project. The potential need for PM&E measures related to wetlands, riparian, and littoral habitat will be evaluated during the relicensing process.

### **Threatened and Endangered Species**

#### Hawks Nest Project

#### *Existing Measures*

During the current license, Hawks Nest Hydro implemented a plan for protecting the federally endangered running buffalo clover (*Trifolium stoloniferum*) at the Cotton Hill Site as a PM&E measure for a threatened and endangered species found near the project boundary.

#### *Proposed Measures*

There are no proposed PM&E measures related to threatened and endangered species for the Hawks Nest Project. The potential need for PM&E measures will be evaluated during the relicensing process.

## Glen Ferris Project

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

### **Recreation and Land Use**

#### Hawks Nest and Glen Ferris Projects

##### *Existing Measures*

- Annually provide \$50,000 to West Virginia DNR for development or maintenance of existing recreation facilities inside the project boundary including the Hawks Nest Power Station, Cotton Hill Bridge, and Kanawha Falls access sites.
- Maintain the existing project recreation sites and facilities.
- Maintain public safety measures in place.
- Maintain run-of-river operations for both projects and the FERC-approved ramping rate for the Hawks Nest Project.

##### *Proposed Measures*

Hawks Nest Hydro proposes to provide annual funding of an equivalent or comparable value to the West Virginia DNR and continue implementing the existing PM&E measures provided during the current license term.

### **Cultural Resources**

#### Hawks Nest and Glen Ferris Projects

##### *Existing Measures*

The current license requires consultation with the West Virginia State Historic Preservation Office (SHPO) if any previously unidentified archaeological or historic properties are discovered.

### *Proposed Measures*

Develop a historic properties management plan (HPMP) to provide for the protection and management of historic properties within the area of potential effect (APE).

### **3.3 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.

### **3.4 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY**

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

#### **3.4.1 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.<sup>5</sup> 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.

#### **3.4.2 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

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<sup>5</sup> 16 U.S.C. §§ 791(a)-825(r).

basis for concluding that the Hawks Nest and Glen Ferris projects should no longer be used to produce power. Thus, we do not consider a non-power license a reasonable alternative to relicensing the project.

### **3.4.3 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.

## **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**

We have reviewed the information provided in the Hawks Nest and Glen Ferris projects' PAD. Based on information in the PAD and preliminary staff analysis, we have not, at this time, identified any resources that may be cumulatively affected by the proposed operations of the projects.

#### **4.1.2 Geographic Scope**

The geographic scope of the analysis defines the physical limits or boundaries of the proposed action's effect on the resources. Because the proposed action can affect resources differently, the geographic scope for each resource may vary. As noted, we have not yet identified any resources that would be cumulatively affected by the proposed project.

### **4.1.3 Temporal Scope**

The temporal scope of our cumulative effects analysis in the EA will include a discussion of past, present, and reasonably foreseeable future actions and their effects on each resource that could be cumulatively affected. Based on the potential term of a new license, the temporal scope will look 30 to 50 years into the future, concentrating on the effect on the resources from reasonably foreseeable future actions. The historical discussion will, by necessity, be limited to the amount of available information for each resource. The quality and quantity of information, however, diminishes as we analyze resources further away in time from the present.

## **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 Hawks Nest and Glen Ferris projects. This list is not intended to be exhaustive or final, but contains those issues raised to date that could have substantial effects. 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 Aquatic Resources**

#### Hawks Nest Project

- Effects of continued project operation on water quality.
- Adequacy of existing 100-cfs minimum flow release for protecting aquatic habitat in the bypassed reach.
- Adequacy of ramping rate schedule for protecting aquatic habitat in the bypassed reach.

- Effects of entrainment and impingement on resident fish populations.

#### Glen Ferris Project

- Effects of continued project operation on water quality.
- Effects of entrainment and impingement on resident fish populations.

### **4.2.2 Terrestrial Resources**

#### Hawks Nest Project

- Effects of continued project operation on terrestrial wildlife and botanical species.
- Effects of continued project operation on wetland, riparian, or littoral habitats.
- Effects of maintenance activities (e.g., road maintenance, transmission line maintenance, and rights-of-way vegetation management) and project-related recreation on wildlife habitat and wildlife, including the establishment and spread of invasive species.

#### Glen Ferris Project

- Effects of continued project operation on terrestrial wildlife and botanical species.
- Effects of continued project operation on wetland, riparian, or littoral habitats.
- Effects of maintenance activities (e.g., road maintenance, transmission line maintenance, and rights-of-way vegetation management) and project-related recreation on wildlife habitat and wildlife, including the establishment and spread of invasive species.

### **4.2.3 Threatened and Endangered Species**

### Hawks Nest Project

- Effects of project operation and project-related recreation on the following threatened and endangered species: the Indiana bat, Virginia big-eared bat, running buffalo clover, and Virginia spirea.
- Effects of project operation on shovelnose sturgeon, a species proposed for listing as threatened.
- Effects of project operation on the endangered mussel species: the pink mucket, fanshell, tuberculed-blossom pearly, northern riffleshell, sheepnose, and the spectaclecase.

### Glen Ferris Project

- Effects of project operation and project-related recreation on the following threatened and endangered species: the Indiana bat, Virginia big-eared bat, running buffalo clover, and Virginia spirea.
- Effects of project operation on shovelnose sturgeon, a species proposed for listing as threatened.
- Effects of project operation on the endangered mussel species: the pink mucket, fanshell, tuberculed-blossom pearly, northern riffleshell, sheepnose, and the spectaclecase.

## **4.2.4 Recreation and Land Use**

### Hawks Nest Project

- Adequacy of public access and recreation facilities to meet current and future recreation demand.
- Effects of project operation and maintenance on recreational opportunities and river access within the project area.

### Glen Ferris Project

- Adequacy of public access and recreation facilities to meet current and future recreation demand.
- Effects of project operation and maintenance on recreational opportunities and river access within the project area.

#### **4.2.5 Cultural Resources**

##### Hawks Nest Project

- Effects of project-related land-clearing or land-disturbing activities on previously unidentified historic, archeological, and traditional resources that may be eligible for inclusion in the National Register of Historical Places.

##### Glen Ferris Project

- Effects of project-related land-clearing or land-disturbing activities on previously unidentified historic, archeological, and traditional resources that may be eligible for inclusion in the National Register of Historical Places.

#### **4.2.6 Developmental Resources**

##### Hawks Nest Project

- Effects of potential operational changes on the energy and capacity benefits of the project and effects of funding various protection, mitigation, and enhancement measures on the cost of project power.

##### Glen Ferris Project

- Effects of potential operational changes on the energy and capacity benefits of the project and effects of funding various protection, mitigation, and enhancement measures on the cost of project power.

### **5.0 PROPOSED STUDIES**

Depending upon the findings of studies completed by Hawks Nest Hydro and the recommendations of the consulted entities, Hawks Nest Hydro will consider, and may propose certain other measures to enhance environmental resources affected by the

projects as part of the proposed actions. Hawks Nest Hydro's initial study proposals are identified by resource area in table 2. Detailed information on Hawks Nest Hydro'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 Hawks Nest Hydro from interested participants, including Indian tribes.

Table 2. Hawks Nest Hydro's Initial Study Proposals (Source: PAD).

<b>Resource Area and Issue</b>	<b>Proposed Study/Information Need</b>
<b>Aquatic Resources</b>	
<i>Water Quality</i>	
Total dissolved gas and water temperature	Surveys to collect baseline water quality data in the project reservoirs and downstream of the dams, including the Hawks Nest bypassed reach.
<i>Fisheries and Aquatic Habitat</i>	
Species composition and abundance	Surveys to collect seasonal species composition and abundance in the project reservoirs, immediate tailrace areas, and the Hawks Nest bypassed reach.
Habitat use in Hawks Nest bypassed reach	Study of species composition and available habitat in the Hawks Nest bypassed reach under current minimum flow release of 100 cfs.
Fish entrainment and impingement	Desktop entrainment/impingement studies used in conjunction with the species composition surveys.
<b>Terrestrial Resources</b>	
Wildlife and Botanical Resources	Develop a high-level base map, in GIS, displaying general cover-type information and have field teams verify the cover-type maps during other field activities, including at sites of existing or proposed ground-disturbing activities.
Wetland, Riparian, and Littoral Habitat	Conduct a wetland and riparian habitat survey within the project boundary.
<b>Threatened and Endangered Species</b>	

Rare, Threatened and Endangered Species

No formal study, but observations of suitable habitat and incidental observations of occurrence will be conducted during the ground-truthing effort associated with the cover-type mapping and wetlands and riparian studies.

## **Recreation and Land Use**

Recreational access

Recreational use and need study to determine the need for enhancing existing recreational facilities and/or for providing new recreational facilities to support current and future demand.

Appropriate flows for current or potential recreational uses

Level 1 Desktop Analysis Recreation Flow Study to develop information about existing or potential recreation opportunities, facilities, physical characteristics of the river, and recreation-relevant hydrology in the 5.5-mile Hawks Nest bypassed reach.

## **Cultural Resources**

Protection of historic properties within the APE

Conduct a Phase I investigation to identify potentially affected historic properties within the APE.

## 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 Hawks Nest and Glen Ferris projects. 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 Hawks Nest and Glen Ferris projects;
- 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 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 projects 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 projects 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 projects.

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 November 21, 2012. All filings must clearly identify the following on the first page: **Hawks Nest Hydroelectric Project No. 2512-069 and/or Glen Ferris Hydroelectric Project No. 14439-000**. 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](mailto: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, mail an original and seven copies to: Kimberly D. Bose, 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.

Any questions concerning the scoping meetings, site visits, or how to file written comments with the Commission should be directed to Monir Chowdhury at (202) 502-6736 or [monir.chowdhury@ferc.gov](mailto:monir.chowdhury@ferc.gov). Additional information about the Commission's licensing process and the Hawks Nest and Glen Ferris projects may be obtained from the Commission's website, [www.ferc.gov](http://www.ferc.gov).

## 7.0 EA PREPARATION SCHEDULE

At this time, we anticipate the need to prepare a single EA, which will be sent to all persons and entities on the Commission's service and mailing lists for the Hawks Nest and Glen Ferris projects. 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 any Commission order rendering a decision on a license for the project.

The major milestones, including those for preparing the EA, are as follows:

<u>Major Milestone</u>	<u>Target Date</u>
Scoping Meetings	October 2012
License Application Filed	December 2015
Ready for Environmental Analysis Notice Issued	February 2016
Deadline for Filing Comments, Recommendations, and Agency Terms and Conditions/Prescriptions	April 2016
Single EA Issued	August 2016
Comments on EA Due	September 2016
Deadline for Filing Modified Agency Recommendations	November 2016

If Commission staff determines that there is a need for additional information or additional studies, the issuance of the Ready for Environmental Analysis notice could be delayed. If this occurs, all subsequent milestones would be delayed by the time allowed for Hawks Nest Hydro to respond to the Commission's request. A process plan, which has a complete list of relicensing milestones for the Hawks Nest and Glen Ferris projects, including those for developing the license application, is attached as appendix B to this SD.

## **8.0 PROPOSED EA OUTLINE**

The preliminary outline for the Hawks Nest and Glen Ferris projects' EA is as follows:

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## 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 Hawks Nest and Glen Ferris projects. 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 Hawks Nest and Glen Ferris projects.

Atlantic States Marine Fisheries Commission. 2000. Interstate Fishery Management Plan for American eel (*Anguilla rostrata*). (Report No. 36). April 2000.

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. Undated. Fisheries USA: the Recreational Fisheries Policy of the U.S. Fish and Wildlife Service. Washington, D.C.

West Virginia Department of Natural Resources. 1983. New River Basin plan. Charleston, West Virginia. 127 pp.

West Virginia Department of Natural Resources. 1984. Gauley River Basin plan. Charleston, West Virginia. 116 pp.

West Virginia Department of Natural Resources. Soil Conservation Service of the Department of Agriculture. 1985. Lower Kanawha River Basin, Volume III: Problems, Concerns, Alternative Solutions, and a Suggested Plan. Charleston, West Virginia. 158 pp.

West Virginia Governor's Office of Community and Industrial Development. West Virginia State Comprehensive Outdoor Recreation Plan (SCORP): 1988-1992. Charleston, West Virginia.

## 10.0 MAILING LIST

The list below is the Commission's official mailing list for the Hawks Nest Hydroelectric Project (P-2512) and the Glen Ferris Hydroelectric Project (FERC No. 14439). If you want to receive future mailings for the Hawks Nest Project and/or Glen Ferris Project and are not included in the list below, please send your request by email to [efiling@ferc.gov](mailto:efiling@ferc.gov) or by mail to: Kimberly D. Bose, 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: Hawks Nest Hydroelectric Project No. 2512-069 or Glen Ferris Hydroelectric Project No. 14439-000. 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](mailto:FERCOnlineSupport@ferc.gov) or toll free at 1-866-208-3676, or for TTY, (202) 502-8659.

### Mailing List for Hawks Nest and Glen Ferris Projects

Town of Fayette PO Box 569 Fayetteville, WV 25840-0569	Town of Gauley Bridge Gauley Bridge, WV 25085	Regional Engineer FERC New York Regional Office 19 W 34th St., Room 400 New York, NY 10001-3006
Director Geological & Economic Survey State of West Virginia 1 Mont Chateau Rd. Morgantown, WV 26508-8079	Director Oglebay Institute Oglebay Park Wheeling, WV 25305	Director West Virginia Department of Agriculture State Capitol Building Charleston, WV 25305

<p>Fred Cutlip Intergovernmental Review Community and Industrial Development Building 6, Room 553 S. Capitol Complex Charleston, WV 25305</p>	<p>Kerry D. Bledsoe Fishery Biologist West Virginia Division of Natural Resources PO Box 99 Farmington, WV 26571- 0099</p>	<p>John B Rader Director West Virginia Division of Natural Resources PO Box 67 Elkins, WV 26241-0067</p>
<p>Ronald Wilson Earthjustice Legal Defense Fund 705 2nd Ave., Suite 203 Seattle, WA 98104-1741</p>	<p>Atty. General West Virginia Office of Attorney General Building 1, Room E-26 State Capitol Complex Charleston, WV 25305</p>	<p>West Virginia Office of the Governor State Capitol Charleston, WV 25305</p>
<p>West Virginia Press Services, Inc. 3422 Pennsylvania Ave. Charleston, WV 25302- 4633</p>	<p>Richard E Hitt General Counsel West Virginia Public Service Commission PO Box 812 Charleston, WV 25323</p>	<p>Allan B. Mollahan Honorable U.S. House of Representatives Washington, DC 20515</p>
<p>J. D Rockefeller, IV Senator U.S. Senate 531 Hart Senate Office Bldg. Washington, DC 20510</p>	<p>Joe Manchin Senator U.S. Senate 303 Hart Senate Office Bldg. Washington, DC 20510</p>	<p>Barbara Douglas U.S. Fish and Wildlife Service 694 Beverly Pike Elkins, WV 26241-9475</p>
<p>Andrew Titler U.S. Department of Interior 1 Gateway Center, Suite 612 Newton, MA 02458-2881</p>	<p>Section Chief U.S. Environmental Protection Agency Region III 1650 Arch St. Philadelphia, PA 19103- 2029</p>	<p>Regional Director U.S. Fish and Wildlife Service 300 Westgate Center Dr. Hadley, MA 01035-9587</p>

<p>Alexander R Hoar U.S. Department of Interior 300 Westgate Center Dr. Hadley, MA 01035-9587</p>	<p>Office of the Solicitor U.S. Bureau of Indian Affairs 1849 C St., NW, MS 6557 Washington, DC 20240</p>	<p>Project Manager - Hydro U.S. Army Corps of Engineers, Pittsburgh District 2200 W. S. Moorhead Federal Bldg 1000 Liberty Ave Pittsburgh, PA 15222-4186</p>
<p>Commander U.S. Army Corps of Engineers North Atlantic Division 26 Federal Plz, # 2109 New York, NY 10278-0090</p>	<p>US Army Corps of Engineers 550 Main Street Cincinnati, OH 45202</p>	<p>U.S. Coast Guard MSO Pittsburgh 1150 Kossman Bldg. 100 Forbes Ave. Pittsburgh, PA 15222-1371</p>
<p>H. Paul Friesema Professor Institute for Policy Research 227 Scott Hall, Northwestern University 601 University Place Evanston, IL 60208-1006</p>	<p>Field Manager U.S. Bureau of Land Management 626 E Wisconsin Ave., Suite 200 Milwaukee, WI 53202- 4618</p>	<p>U.S. Department of the Interior 315 S Allen St., Suite 322 State College, PA 16801- 4851</p>
<p>U.S. National Park Service U.S. Department of the Interior 15 State St. Boston, MA 02109-3502</p>	<p>Regional Director Lands, Watershed &amp; Minerals U.S. Bureau of Land Management 626 E Wisconsin Ave. Milwaukee, WI 53202- 4616</p>	<p>Hoss Liaghat Pennsylvania Department of Environmental Protection 400 Market Street Harrisburg, PA 17105</p>
<p>Pennsylvania Fish &amp; Boat Commission 450 Robinson Ln. Bellefonte, PA 16823-8133</p>	<p>Susquehanna River Basin Commission 1721 N Front St. Harrisburg, PA 17102-2315</p>	<p>David M Coon Supervisor Wisconsin Valley Improvement Company 2301 3rd St. Wausau, WI 54403-3202</p>

<p>Tina Woodward Licensing Regulatory Specialist HDR Engineering, Inc. 400 S Tryon St., Suite 2401 Charlotte, NC 28285</p>	<p>Randy Garletts Compliance Specialist Brookfield Renewable Power 14 River View Terrace Oakland, MD 21550</p>	<p>David Barnhart General Manager Hawks Nest Hydro, LLC 326 Third Avenue, Suite 201 Montgomery, WV 25136</p>
<p>Dean Bonifacio U.S. Army Corps of Engineers - Bluestone Dam 701 Miller Ave Hinton, WV 25951</p>	<p>Natural Resource Conservation Service 1336 State Street Gassaway, WV 26624-7800</p>	<p>U.S. Army Corps of Engineers 502 Eighth Street Huntington, WV 25701- 2070</p>
<p>U.S. Department of Agriculture National Resource Conservation Service 473 Ragland Rd Beckley, WV 25801-9753</p>	<p>U.S. Bureau of Land Management 7450 Boston Blvd Springfield, VA 22153</p>	<p>U.S. Bureau of Reclamation 1849 C Street, NW Washington, DC 20240</p>
<p>WV State Historic Preservation Office 1900 Kanawha Boulevard, East Charleston, WV 25305-0009</p>	<p>Paul Howard WV Division of Homeland Security and Emergency Management Building 1, Room EB-80 1900 Kanawha Blvd., East Charleston, WV 25305</p>	<p>WV Department of Commerce Hawks Nest State Park P.O. Box 857, 177 West Main Street Ansted, WV 25812</p>
<p>Town of Fayetteville, WV P.O. Box 298 Fayetteville, WV 25840</p>	<p>Matthew Wender Fayette County 100 Court Street Fayetteville, WV 25840</p>	<p>Stephen Young WV Department of Environmental Protection 60157th St S.E. Charleston, WV 25304</p>
<p>WV Conservation Agency 801 State Street Gassaway, WV 26624</p>	<p>U.S. National Park Service PO Box 246 Glen Jean, WV 25846</p>	<p>WV Division of Energy Capital Complex, Bldg 6, Rm 553 1900 Kanawah Blvd, East Charleston, WV 25305</p>

Town of Ansted, WV 110 E Main Street Ansted, WV 25812		
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**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 field 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  
PROCESS PLAN AND SCHEDULE FOR THE HAWKS NEST AND GLEN FERRIS  
PROJECTS**

(shaded milestones are unnecessary if there are no study disputes; if due date falls on a weekend or holiday, the due date is the following business day)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
HAWKS NEST HYDRO	Issue Public Notice for NOI/PAD	7/24/12	5.3(d)(2)
HAWKS NEST HYDRO	File NOI/PAD with FERC	7/24/12	5.5, 5.6
FERC	Tribal Meetings	8/23/12	5.7
FERC	Issue Notice of Commencement of Proceeding; Issue Scoping Document 1	9/22/12	5.8
FERC	Hawks Nest and Glen Ferris Projects Environmental Site Review and Scoping Meetings	10/17/12 10/18/12	5.8(b)(viii)
All stakeholders	PAD/Scoping Document Comments and Study Requests Due	11/21/12	5.9
FERC	Issue Revised Scoping Document	1/5/13	5.10
HAWKS NEST HYDRO	File Proposed Study Plan (PSP)	1/5/13	5.11(a)
All stakeholders	Proposed Study Plan Meeting	2/4/13	5.11(e)
All stakeholders	Proposed Study Plan Comments Due	4/5/13	5.12
HAWKS NEST HYDRO	File Revised Study Plan	5/5/13	5.13(a)
All stakeholders	Revised Study Plan Comments Due	5/20/13	5.13(b)
FERC	Director's Study Plan Determination	6/4/13	5.13(c)
Appropriate stakeholders	Any Study Disputes Due	6/24/13	5.14(a)
Dispute Panel	Third Dispute Panel Member Selected	7/9/13	5.14(d)
Dispute Panel	Dispute Resolution Panel Convenes	7/14/13	5.14(d)(3)
HAWKS NEST HYDRO	Applicant Comments on Study Disputes Due	7/19/13	5.14(j)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
Dispute Panel	Dispute Resolution Panel Technical Conference	July/Aug. 2013 [prior to engaging in deliberative meetings]	5.14(j)
Dispute Panel	Dispute Resolution Panel Findings Issued	8/13/13	5.14(k)
FERC	Director's Study Dispute Determination	9/2/13	5.14(l)
HAWKS NEST HYDRO	First Study Season	2013-2014	5.15(a)
HAWKS NEST HYDRO	Initial Study Report	6/4/14	5.15(c)(1)
All stakeholders	Initial Study Report Meeting	6/19/14	5.15(c)(2)
HAWKS NEST HYDRO	Initial Study Report Meeting Summary	7/4/14	5.15(c)(3)
All stakeholders	Any Disputes/Requests to Amend Study Plan Due	8/3/14	5.15(c)(4)
All stakeholders	Responses to Disputes/Amendment Requests Due	9/2/14	5.15(c)(5)
FERC	Director's Determination on Disputes/Amendments	10/2/14	5.15(c)(6)
HAWKS NEST HYDRO	Second Study Season	2014-2015	5.15(a)
HAWKS NEST HYDRO	Updated Study Report due	6/4/15	5.15(f)
All stakeholders	Updated Study Report Meeting	6/19/15	5.15(f)
HAWKS NEST HYDRO	Updated Study Report Meeting Summary	7/4/15	5.15(f)
All stakeholders	Any Disputes/Requests to Amend Study Plan Due	8/3/15	5.15(f)
All stakeholders	Responses to Disputes/Amendment Requests Due	9/2/15	5.15(f)

<b>Responsible Party</b>	<b>Pre-Filing Milestone</b>	<b>Date</b>	<b>FERC Regulation</b>
FERC	Director's Determination on Disputes/Amendments	10/2/15	5.15(f)
HAWKS NEST HYDRO	File Preliminary Licensing Proposal	8/3/15	5.16(a)
All stakeholders	Preliminary Licensing Proposal Comments Due	11/1/15	5.16(e)
HAWKS NEST HYDRO	File Final License Application	12/31/15	5.17