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Mark E. Slade
Director, Licensing

September 22, 2014

VIA E-FILING

Kimberly Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Blenheim-Gilboa Pumped Storage Project Relicensing (FERC No. P-2685-026)
Filing of Proposed Study Plan

Dear Secretary Bose:

The New York Power Authority (Power Authority) is relicensing the Blenheim-Gilboa Pumped Storage Project (FERC No. 2685) (Project). The Power Authority is using the Commission's Integrated Licensing Process (ILP) as outlined in 18 C.F.R. Part 5 to relicense the Project.

The Power Authority filed its Notice of Intent (NOI) and Pre-Application Document (PAD) on April 10, 2014. The Federal Energy Regulatory Commission issued its Scoping Document 1 on June 4, 2014 and held scoping meetings on July 7, 2014 at the Gilboa-Conesville Central School in Gilboa, New York and on July 9, 2014 at the Best Western Inn in Cobleskill, New York. Subsequently, the Power Authority received study requests and comments on the PAD.

Enclosed is the Power Authority's Proposed Study Plan, which includes study plans for the studies being proposed by the Power Authority, a discussion of additional study requests, and a discussion of additional stakeholder comments. Appended to the Proposed Study Plan are Appendix A – a listing of the stakeholders' Study Request Letters and Comments, and Appendix B – Responses to Resource Comments/Concerns.

The Power Authority is proposing a total of six studies including:

- 1) Historic Structures Study
- 2) Phase 1A Archaeological Survey
- 3) Literature-Based Assessment of Fish Entrainment and Turbine Passage Survival
- 4) Recreation Use/User Contact Study and Assessment of Effects the Project has on Recreation Use

- 5) Effect of Project Operations on Downstream Flooding Study
- 6) Socioeconomics Study

The Power Authority will hold a study plan meeting open to agencies and the public at 9:00 a.m. on Thursday, October 16, at the Best Western Inn in Cobleskill, New York. At the meeting, the Power Authority will discuss the proposed study plans with stakeholders. Stakeholders may provide comments during the meeting.

The ILP provides that stakeholders can provide comments on the proposed study plans within 90 days of this filing, the deadline of which is December 21, 2014. Written comments need to be filed directly with the Federal Energy Regulatory Commission using the eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp> or by regular mail to:

Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426.

As required by the Commission's regulations, the Power Authority will file a Revised Study Plan with the Commission by January 20, 2015.

If there are any questions regarding the Proposed Study Plan or the relicensing process, please direct them to:

Mark E. Slade
Director, Licensing
123 Main Street
White Plains, New York 10601
Telephone: (914) 681-6659
Email: Mark.Slade@NYPA.gov

Information regarding the relicensing of the Project can also be found at the Project's relicensing website at www.bg.gov.

Sincerely,



Mark E. Slade
Director, Licensing



**BLenheim-GILBOA PUMPED STORAGE
POWER PROJECT RELICENSING**

FERC No. 2685

PROPOSED STUDY PLAN

SEPTEMBER 22, 2014

P-2685-026



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Authority**

Generating more than electricity

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LIST OF ABBREVIATIONS

ADCP	Acoustic Doppler Current Profiler
APE	Area of Potential Effect
B-G or Project	Blenheim-Gilboa Pumped Storage Power Project
CFR	Code of Federal Regulations
cfs	cubic feet per second
DCC	Dam Concerned Citizens
DEM	Digital Elevation Model
DO	dissolved oxygen
DOE	Department of Energy
EA	Environmental Assessment
EAP	Emergency Action Plan
ESA	Endangered Species Act
FERC or Commission	Federal Energy Regulatory Commission
FPA	Federal Power Act
FPC	Federal Power Commission
FWOS	Flood Warning Operating System
GIS	Geographic Information System
HABS/HAER	Historic America Building Survey/Historic American Engineering Record
HAER	Historic American Engineering Record
HEC	USACE Hydrologic Engineering Center
HEC-HMS	USACE Hydrologic Engineering Center's Hydrologic Modeling System
HEC-RAS	Hydrologic Engineering Center River Analysis System
HPMP	Historic Properties Management Plan
HSR	Historic Structures Report
ILP	Integrated Licensing Process
LiDAR	Light Detection and Ranging
MCS	Middleburgh Central Schools
NED	National Elevation Dataset
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NLEB	Northern Long-Eared Bat
NOI	Notice of Intent
NRHP	National Register of Historic Places
NYC	New York City

NYCDEP	New York City Department of Environmental Protection
NYSCC	New York State Canal Corporation
NYISO	New York Independent System Operator
NYNHP	New York Natural Heritage Program
NYPA	New York Power Authority
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYPA	New York Power Authority
OPRHP	New York State Office of Parks, Recreation, and Historic Preservation
O&M	operation and maintenance
PAD	Pre-Application Document
PME	Protection, Mitigation, and Enhancement
PMF	Probable Maximum Flood
PMFA	Potential Failure Mode Analysis
Power Authority	New York Power Authority
PSP	Proposed Study Plan
RTE	Rare, Threatened, and Endangered
SAV	submerged aquatic vegetation
SCORP	State Comprehensive Outdoor Recreation Plan
SHPO	State Historic Preservation Office
STID	Supporting Technical Information Document
T & E Species	Threatened and Endangered Species
U.S.	United States
USACE	United States Army Corps of Engineers
USDOI	United States Department of Interior
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 INTRODUCTION

The Power Authority of the State of New York (referred to as the Power Authority or NYPA) is relicensing the Blenheim-Gilboa Pumped Storage Project (FERC No. 2685) (Project). The Project is located on Schoharie Creek, a tributary of the Mohawk River, about 40 miles southwest of Albany, New York, in the northern Catskill Mountains. The Power Authority is using the Commission's Integrated Licensing Process (ILP) as outlined in 18 C.F.R. Part 5.

In accordance with 18 C.F.R. § 5.5 and 5.6, the Power Authority filed its Notice of Intent (NOI) and Pre-Application Document (PAD) on April 10, 2014, which included the Power Authority's preliminary study plans for the Project. These studies included: 1) Literature-Based Assessment of Fish Entrainment and Turbine Passage Survival, 2) Recreation Use/User Contact Study and Assessment of the Project on Recreation Use, 3) Phase 1A Archaeological Survey, and 4) Historic Structures Survey.

The Commission issued its Scoping Document 1 (SD1) on June 4, 2014, and held scoping meetings on July 7, 2014 at the Gilboa-Conesville Central School in Gilboa, New York, and on July 9, 2014, at the Best Western Inn in Cobleskill, New York, where potential issues were identified by agencies, stakeholders, and the public. Subsequently, the Power Authority received comments on the PAD and the study plans as well as requests for additional studies. The Power Authority has reviewed these comments and study requests, and this Proposed Study Plan (PSP) addresses and responds to all comments and requests received.

In addition to responding to comments received, the Power Authority in this PSP proposes to build on the studies that were initially proposed in the PAD. The Power Authority has enhanced the study plans for the four study plans referenced above in response to feedback received during the scoping process. Additionally, the Power Authority is proposing two new studies which were requested by stakeholders during the study process. These include an Effect of Project Operations on Downstream Flooding Study and a Socioeconomics Study. The Power Authority believes that these studies are relevant to the continued operation of the Project and will better enable FERC to analyze the effects of continued operation of the Project on power and non-power resources.

The Power Authority will hold a study plan meeting, open to agencies and the public, at 9:00 a.m. on Thursday, October 16, 2014, at the Best Western Inn in Cobleskill, New York. At the meeting, the Power Authority will discuss the proposed study plans with stakeholders. FERC will also be in attendance at the study plan meeting.

Stakeholders may provide comments on the proposed study plans within 90 days of this filing, the deadline of which is December 21, 2014. Written comments need to be filed directly with the Federal Energy Commission using the eFiling system at <http://www.ferc.gov/docs-filing/efiling.asp> or by regular mail at Federal Energy Regulatory Commission, 888 First Street, N.E. Washington, DC 20426. The Power Authority will subsequently file a Revised Study Plan with the Commission by January 20, 2015.

The PSP is divided into four sections:

1. Proposed study plans;
2. A discussion of additional study requests;
3. A discussion of additional comments raised during scoping; and
4. Appendices with a listing of study request letters and a matrix that summarizes comments received during scoping and a brief response to each item.

2.0 PROPOSED STUDIES

In the Project PAD, the Power Authority proposed four initial studies. Based on comments received during scoping, the Power Authority has revised these four study plans to better address the issues raised. Further, commenting parties requested studies related to downstream flooding and socioeconomics. The Power Authority has developed study plans on these two topics and has included them below.

2.1 HISTORIC STRUCTURES SURVEY

2.1.1 GENERAL DESCRIPTION OF PROPOSED STUDY

The purpose of the historic structures survey is to identify cultural resources that: 1) may be eligible for listing in the National Register of Historic Places (NRHP), 2) were previously determined eligible for listing or 3) are listed in the NRHP. Once the resources are identified, it will be possible to assess any impacts on those resources from Project operations. This will be accomplished through consultation with the New York State Historic Preservation Office (New York SHPO) and other interested stakeholders and preservation groups; site file and background research; and field studies. To accomplish the purpose of this study, the Power Authority proposes to conduct a historic structures survey according to New York SHPO standards in order to gather information on historic architectural resources in the Project Area of Potential Effects (APE). Existing information will be collected from records maintained at the New York SHPO, state and local libraries and historical societies, the Library of Congress, Historic American Building Survey/Historic American Engineering Record (HABS/HAER), and the National Register in Washington, DC.

2.1.2 GEOGRAPHIC SCOPE

The geographic scope of this study is the Project's APE. As defined by FERC, the Project APE includes the lands enclosed by the Project boundary and lands or properties outside of the Project boundary where Project construction and operation or Project-related recreational development or other enhancements may cause changes in the character or use of historic properties, if any historic properties exist. The Power Authority will consult with the New York SHPO in establishing the APE for FERC's relicensing of the Project.

2.1.3 STUDY GOALS AND OBJECTIVES

The goal of the study is to assist FERC in meeting its compliance requirements under Section 106 of the National Historic Preservation Act of 1966, as amended (Section 106) by determining whether relicensing of the Project will affect historic properties. The objective of the study is to identify cultural resources that

may be eligible for listing, have been determined eligible for listing or are listed in the NRHP. If it is confirmed that historic properties are present, the Power Authority will identify and assess any potential effects to historic properties from the continued operation and maintenance of the Project.

2.1.4 RELEVANT RESOURCE MANAGEMENT GOALS AND PUBLIC INTEREST CONSIDERATIONS

Section 106 requires that federal agencies, licensees, and those receiving federal assistance take into account the effects of proposed undertakings on any resource that is listed in or is eligible for the NRHP. As the lead agency, FERC is responsible for fulfilling the requirements of Section 106 in its decision to issue a new license for the Project. FERC has designated the Power Authority as its non-federal representative for carrying out day-to-day consultation under Section 106.

As stipulated by the regulations that implement Section 106 (36 CFR 800), the New York SHPO represents the interests of the State and its citizens, and advises and assists FERC in determining the significance of historic resources within the APE. The New York SHPO administers cultural resource management reviews under Section 106, which involves providing technical guidance and professional advice on the potential impact of licensed projects, such as B-G on the State's historic, architectural, and archaeological resources.

2.1.5 EXISTING INFORMATION AND NEED FOR ADDITIONAL INFORMATION

Background information on the Lansing Manor Complex was gathered during a file search conducted in May 2012 at the New York SHPO at Peebles Island, New York. Lansing Manor House, built in 1819, along with its outbuildings and service buildings dating from several different time periods, and the surrounding 300-acre property was listed in the NRHP in 1973 for its significance in the economic, social, and technological history of both the area and the State ([Rennenkampf 1973](#)). Between 1819 and 1836, Lansing Manor was the center of business for the Lansing and Ray families' real estate and commercial ventures in the Schoharie County towns of Blenheim, Gilboa, and Jefferson and the town of Stamford in Delaware County, New York. Owned and operated by four successive families who lived on the property between 1819 and 1972, the farm supported general farming and dairying typical of the agricultural economy of southern Schoharie County. In 1972, the Power Authority acquired Lansing Manor, by then known as Beechwood Farm, as part of the development of the Project.

Since 1972, the farmland has been fallow and beginning in 1973 the Lansing Manor Complex has served as the location of the Project's Visitors Center. The former dairy barn was adapted for use as the Visitors

Center, with the addition of a large observatory in 1973-74. The manor house was converted from a residence to a historic house museum in 1973-74, when it was opened to the public ([Sherwood rev. 1992](#): 4). Additional extant buildings on the site include the Tenant House (ca. 1804), Horse Barn (1819), Corn Crib (ca. 1890-1911), Silo (1896-1911), Milk House (1881), Ice House (1896-1911), Land Office or Creamery/Former Laundry (Post-1819, Pre-1861, moved 1975), Privy (1819, moved 1896-1911, moved again in 1975), Well Head (1819), and Shop/Possible Servant's Quarters (1819, rebuilt 1896-1911).

To date, there have been no comprehensive historic architectural surveys conducted within those parts of Blenheim or Gilboa within the Project boundary. A Level II Historic American Engineering Record (HAER) Documentation was completed on the Route 30 Bridge over Mine Kill Creek, located approximately one mile west of the Blenheim Gilboa Reservoir, prior to its replacement in 2008 ([LoRusso 2004](#)). The Mattice Family cemetery, which lies within the Project boundary, was noted as part of the HAER documentation, but to date no NRHP-eligibility evaluation of the cemetery has been conducted.

Two additional potentially NRHP-eligible resources are located in the Project boundary: the remnants of the "Lansing Turnpike" and the Park Manager's house, a ca. 1860 Greek Revival-style dwelling noted as the Hiram Thomas property on the 1866 *Topographical Atlas of Schoharie County* ([Stone & Stewart 1866](#)). The turnpike is also noted on the 1856 *Schoharie Wall Map* ([Wenia and Lorey 1856](#)) and the 1866 Stone & Stewart Atlas but further research is required to determine the history, significance, and integrity of both of these resources.

The Project, completed in 1973, is less than 50 years old. The NRHP Criteria state that a property normally must be at least 50 years old to be considered for listing in the NRHP. In some instances, however, a property that is less than 50 years old can be eligible for the NRHP if it possesses "exceptional significance," as defined by the National Park Service in NRHP Criteria Consideration G (National Park Service 1997).

2.1.6 PROJECT NEXUS

The proposed historic structures survey will produce a historic architectural survey report and NRHP evaluation of all structures surveyed within the Project's APE that potentially may be affected by the continued operation and maintenance of the Project. The survey has the following purposes: update the information for previously identified resources; conduct fieldwork and provide evaluations of NRHP eligibility for all surveyed resources, based on their historic significance and integrity; and provide

assessments of existing and potential Project-related effects to NRHP-listed and -eligible historic resources.

2.1.7 METHODOLOGY

Task 1. Consultation

The Power Authority will consult with the New York SHPO with respect to development of the APE for the Project and field survey methodology. The proposed historic structures survey will conform to the professional standards and guidelines established by the New York SHPO. Additionally, the Power Authority will consult with the New York SHPO and the Schoharie County Historical Society, which operates Lansing Manor House, to establish the requirements to update the 1992 Lansing Manor Historic Structures Report (HSR). The Power Authority will employ a professionally qualified architectural historian who meets the Secretary of the Interior's Standards (36 CFR, part 61) to conduct the historic structures survey.

Task 2. Background Research

The Power Authority proposes to examine historic maps and atlases, historic photographs and illustrations, and local histories located at the New York State Archives and other research repositories, such as local libraries and historical societies as well as their own archives. The Power Authority will use the results of the background research, as well as the HSR and NRHP Nomination for Lansing Manor, to develop historic contexts to guide the field survey and to assist in providing the additional documentation of the Lansing Manor Complex.

Task 3. Field Work

The field survey will include an examination of all above-ground resources within the project APE. Architectural historian(s) will visit each of the previously identified resources and document any other resources 50 years or older. The Project, which was constructed between 1969 and 1973, will also be examined to determine whether it is eligible for NRHP listing. Information about the current appearance, including the setting, physical condition, and character-defining architectural features of the surveyed resources will be recorded. High-resolution digital photographs will be taken of each resource. Additional photography will include general context views that show the resources in relation to one another and their surroundings.

Task 4. Additional Documentation of Lansing Manor

The Power Authority proposes to update the 1992 Historic Structures Report for the Lansing Manor Complex to include some or all of the following components after consultation with and input from the New York SHPO and the Schoharie County Historical Society:

- Include historic landscape features, identifying those that retain integrity;
- Provide an inventory, with ownership information, of the interior furnishings and household collections within the Lansing Manor House, including those items on loan from the New York State Museum;
- Provide an inventory and evaluation of the current conditions of all contributing structures;
- Update and revise the interpretive materials including measured drawings;
- Assess the structural code;
- Assess ADA compliance for visitors to the property and appropriate design for historic buildings;
- Develop rehabilitation methods and recommendations; and
- Include a maintenance plan which provides guidance to the historic structures and landscape features (also to be addressed in the Historic Properties Management Plan (HPMP)).

Task 5. Study Report

Upon completion of the field investigations, the Power Authority will analyze all collected data and prepare a historic context that identifies the significant themes, events, and/or people that had an impact on the historical development of the area. The historic context and field notes regarding integrity will serve as the basis for the NRHP-eligibility evaluation of those surveyed resources not already included in the Lansing Manor NRHP nomination. The integrity of the surveyed resources will be evaluated to determine if the properties retain a sufficient amount of their historic appearance to be eligible for listing in the NRHP.

The final report will provide information about the NRHP status of previously identified resources in the Project APE and provide recommendations regarding the potential NRHP-eligibility of resources not previously evaluated. The report will contain a narrative description of the resources identified during the survey, including information about the general setting and current physical condition. The narrative will provide a statement of integrity that addresses changes that have occurred over time. The description will be followed by a historic context statement that will provide information about the general historical development of the resource.

Recommendations will include a narrative statement of significance that will define the applicable National Register criteria, criteria considerations (if any apply), areas of significance, and periods of significance. The narrative will include a summary statement of significance that will establish the level(s), period(s), and areas of significance. Other components of the report will consist of a bibliography of sources consulted and graphical information, including a map of the Project. The map will be prepared in ArcGIS format and will include the scale, north arrow, and legend. An appendix to the report will consist of NY SHPO *Historic Resource Inventory Forms* for all surveyed resources including the buildings and features at Lansing Manor, the Mattice Family Cemetery, the Park Manager’s residence, and the Lansing Turnpike. The forms and report will be prepared in accordance with NY SHPO report standards, including GIS mapping and photography.

Following fieldwork and the preparation of a final report with survey findings, New York SHPO will make NRHP eligibility determinations for any resources within the Project APE not previously surveyed and/or evaluated.

2.1.8 PROPOSED DELIVERABLES AND SCHEDULE

Task	Schedule
FERC Study Plan Determination	Anticipated to be February 19, 2015
Task 1. Meetings	March – May 2015
Task 2. Background Research	Spring and Summer 2015
Task 3. Field Work	Summer and Fall 2015
Task 4. Additional Documentation of Lansing Manor Complex	Summer and Fall 2015
Task 4. Study Report	Within one year of Study Plan Determination (Likely February 19, 2016)

2.1.9 LEVEL OF EFFORT AND COST

The estimated cost for the historic structures survey within the Project’s APE and update of the Lansing Manor NRHP Historic Structures Report is approximately \$120,000. The Power Authority believes that this level of effort is adequate to obtain and update the information on historic resources within the Project’s APE.

2.1.10 REFERENCES

LoRusso, Mark S. 2004. *Historic American Engineering Record: Level II Documentation of the Route 30 Bridge Spanning Minekill Creek*. New York State Museum.

National Park Service 1997 National Park Service. 1997. *Bulletin 15: How to Apply the National Register Criteria of Evaluation*. US Department of the Interior, National Park Service, Washington, DC.

Rennenkampf, Lenore M. 1973. National Register of Historic Places: "Lansing Manor." National Park Service, Washington DC.

Sherwood, Bruce T. Revised 1992. *Lansing Manor Historic Structures Report*.

Stone & Stewart. 1866. *Topographical Atlas of Schoharie County, New York* [Online] URL:
<http://www.rootsweb.ancestry.com/~nyschoha/mapblen.html> Accessed July 23, 2012.

Wenia and Lorey. 1856. *Wall Map of Schoharie County, New York*. [Online] URL:
[http://memory.loc.gov/cgi-bin/query/h?ammem/gmd:@field\(NUMBER+@band\(g3803s+la002022\)\)](http://memory.loc.gov/cgi-bin/query/h?ammem/gmd:@field(NUMBER+@band(g3803s+la002022))) Accessed July 23, 2012.

2.2 PHASE 1A ARCHAEOLOGICAL SURVEY

2.2.1 GENERAL DESCRIPTION OF PROPOSED STUDY

In its Pre-Application Document (PAD), the Power Authority proposed to conduct a Phase IA Archaeological Survey. The Power Authority proposes consulting with the New York State Historic Preservation Office (SHPO) in: 1) the identification of the Project's Area of Potential Effect (APE) investigation area, 2) the identification of known archaeological sites within the APE, and 3) the construction of an archaeological sensitivity model.

The first step in the archaeological resource assessment and management of the Project involves a Phase IA study. The objectives and tasks associated with this initial study are identified and described below.

2.2.2 GEOGRAPHIC SCOPE

The geographic scope for this study is the Project's APE previously as noted in Section 2.1, the Federal Energy Regulatory Commission (FERC) has provided that the Project's APE includes the lands enclosed by the Project boundary and lands or properties outside of the Project boundary where Project construction and operation or Project-related recreational development or other enhancements may cause changes in the character or use of historic properties, if any historic properties exist.

2.2.3 STUDY GOALS AND OBJECTIVES

The goal of this archaeological Phase IA study is to assist the FERC in meeting its compliance requirements under Section 106 of the National Historic Preservation Act (NHPA) (1966), as amended, by determining whether the continued operation and maintenance of the Project under a new license would affect archaeological resources listed in or eligible for listing in the National Register of Historic Places (NRHP) within the Project's APE.

The study objectives are to: 1) identify known archaeological resources listed in, or potentially eligible for listing in the NRHP within the Project's APE, 2) review archaeological and other related data that are pertinent to the formulation of a sensitivity model for determining where archaeological resources may be located in the Project's APE, and 3) offer a field strategy for archaeological testing to determine whether such properties are present in the Project's APE.

2.2.4 RELEVANT RESOURCE MANAGEMENT GOALS AND PUBLIC INTEREST CONSIDERATIONS

Section 106 of the NHPA requires federal undertakings, including FERC's issuance of a new license, to take into account the effects of the proposed undertaking on any resource that is listed in, or may be eligible for listing, in the NRHP. As the lead agency, FERC is responsible for fulfilling the requirements of Section 106 in its decision to issue a new license for the Project. The New York SHPO represents the interests of New York State and its citizens, and advises and assists FERC in determining the significance of cultural resources within the Project's APE (Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR 800)). FERC has designated the Power Authority as its non-federal representative for conducting day-to-day consultation under Section 106.

2.2.5 EXISTING INFORMATION AND NEED FOR ADDITIONAL INFORMATION

The archaeological literature records that Native Americans occupied the region in which the Project is located for at least 12,000 years beginning in the Paleoindian period ([Ritchie 1980](#)). People of this archaeological tradition colonized this temperate region of the New World after retreat of the Laurentide Ice Sheet. To date, there have been no comprehensive, professional archaeological surveys of the Project's APE to identify historic properties. However, records maintained at the New York SHPO in Albany document that five archaeological sites have been identified. One is a Precontact period site that has not been evaluated to determine whether it is eligible for listing to the NRHP. Three Historic period archaeological sites also have preliminary documentation, but also have not been evaluated for eligibility. The last site, Lansing Manor Complex, which is also a standing Historic period farmstead, as well as an archaeological site, is listed in the NRHP. Several local cultural resources management investigations have taken place at Lansing Manor due to on-site projects that involved ground disturbances (e.g., Hartgen Archaeological Associates, Inc. 2005, 2009a, and 2009b).

2.2.6 PROJECT NEXUS

The proposed Phase IA cultural resources technical report will contain information on known archaeological sites and areas where there is a high potential for archaeological sites to exist within the Project's APE. The report will provide guidance on whether additional archaeological studies are required to identify and assess existing archaeological resources for potential inclusion in the NRHP. If such resources are identified, then adverse effects to these resources potentially caused by the continued operation and maintenance of the Project will be identified. If potential adverse effects are expected for any resource that is listed or eligible for listing in the NRHP, then that information will be used in

preparing a Historic Properties Management Plan (HPMP). Guiding the Power Authority's actions relating to Section 106 during the term of the new license, the HPMP will discuss how potential adverse effects to historic properties will be avoided or mitigated.

2.2.7 METHODOLOGY

The Phase IA study methodology involves five tasks.

Task 1 – Consultation with the New York SHPO and Federally Recognized Tribes

The Power Authority will consult with the New York SHPO to obtain background archaeological information on the Project area and to reach agreement on the Project's APE investigation area for archaeological resources. The environmental variables proposed to construct a sensitivity model to predict archaeological site locations will be discussed and the attributes to construct the model will be identified. The Power Authority will seek advice from the New York SHPO on best practices for consulting with the relevant Nations on this Project. Consultation and communication with the New York SHPO will be ongoing on an as-needed basis. The following federally recognized Indian Nations will also be consulted with: the St. Regis Mohawk Tribe, the Delaware Nation, The Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians, to the extent that they have not previously notified the Power Authority that they would only like to be consulted when new construction is proposed.

Task 2 – Background Research

The Power Authority proposes to examine archaeological site files, cultural resources reports and archives located at the Office of Parks, Recreation, and Historic Preservation located at Peebles Island State Park, Waterford, New York. The Power Authority will also consult with the New York SHPO to identify other pertinent data sources. The purpose of this effort is to examine relevant sources that may contain historical and archaeological information on the Project area in order to develop Precontact and Historic period contexts for constructing an archaeological sensitivity model.

Task 3 – Development of a Sensitivity Model

The Power Authority will develop a sensitivity model, based on its consultation with the New York SHPO and background research, to identify locations within the Project's APE investigation area that are likely to contain archaeological resources. The development of a sensitivity model will aid in identifying the probable locations of Precontact and Historic period archaeological sites. The sensitivity model will

divide the investigation area into units of high and low sensitivity for archaeological cultural resources. This desktop analysis will be field checked as defined in Task 4.

Task 4 – Field Reconnaissance

The Power Authority proposes to conduct archaeological field reconnaissance of the Project’s APE investigation area to calibrate the sensitivity model and eliminate areas from further study as warranted. The field reconnaissance will consist of visual examination of selected portions of the Project area, focusing primarily on landforms that have the greatest potential to contain archaeological resources, and as well as confirming areas of disturbance, steep slope, and wetlands, which would have little potential to contain *in situ* buried archaeological resources. The model will be fine-tuned as needed with information gathered during the field reconnaissance.

Task 5 – Report Development

The Power Authority will develop a report that contains a description of all of the work that went into the development of the Phase IA study. The report will make recommendations whether additional archaeological study (Phase IB) is required. A Phase IB is required when areas with a high sensitivity for archaeological sites are identified in the Project’s APE. The report will be developed in consultation with the New York SHPO, and copies of it will be made available to the relevant federally recognized Indian Nations for review and comment. Data collection and report writing will comply with the New York Archaeological Council’s *Cultural Resource Standards Handbook* that was adopted by the New York SHPO in 1994.

2.2.8 PROPOSED DELIVERABLES AND SCHEDULE

Task	Schedule
FERC Study Plan Determination	Anticipated to be February 19, 2015
Task 1. Meeting(s) with the New York SHPO	March – May 2015
Task 2. Background Research	Spring and Summer 2015
Task 3. Development of Sensitivity Model	Summer and Fall 2015
Task 4. Field Reconnaissance	Summer and Fall 2015
Task 5. Study Report	Within one year of Study Plan Determination (Likely February 19, 2016)

2.2.9 LEVEL OF EFFORT AND COST

The estimated cost for the Phase IA archaeological study is approximately \$25,000. The Power Authority believes that the proposed level of effort is adequate to obtain information available on Precontact and Historic period archaeological resources within the Project's APE.

2.2.10 REFERENCES

- Hartgen Archaeological Associates, Inc. 2005. Archaeological Field Reconnaissance, Electrical Distribution and Communication Facilities Lansing Manor, Blenheim-Gilboa Pumped Storage Power Project. Report on file with the Office of Parks, Recreation, and Historic Preservation, Waterford, New York.
- Hartgen Archaeological Associates, Inc. 2009a. Archaeological Monitoring Lansing Manor Visitors Center Bar Retaining Wall, Blenheim-Gilboa Pumped Storage Power Project. Report on file with the Office of Parks, Recreation, and Historic Preservation, Waterford, New York.
- Hartgen Archaeological Associates, Inc. 2009b. Phase 1B Archaeological Field Reconnaissance, NYPA Lansing Manor Visitors Center Improvements, Blenheim-Gilboa Pumped Storage Power Project. Report on file with the Office of Parks, Recreation, and Historic Preservation, Waterford, New York.
- New York Power Authority. 2014. Pre-Application Document (April 10). Report on file with the New York Power Authority, White Plains.
- Ritchie, W. A. 1980. *The Archaeology of New York State*. (revised edition) Harbor Hill Books, Harrison, New York.

2.3 FISH ENTRAINMENT/PROTECTION ASSESSMENT STUDY PLAN

2.3.1 GENERAL DESCRIPTION OF PROPOSED STUDY

In its Pre-Application Document (PAD), the Power Authority proposed to conduct a literature-based assessment of Fish Entrainment and Turbine Passage Survival. Also in Scoping Document 1 (SD1), the Federal Energy Regulatory Commission (FERC) identified the effects of fish entrainment and mortality associated with pump-storage operation on fish populations in project reservoirs as an issue to be addressed in the Environmental Assessment (EA) for the Blenheim-Gilboa Project. The U.S. Fish and Wildlife Service (USFWS) and the New York State Department of Environmental Conservation (NYSDEC) requested a Fish Entrainment/Protection Study at the Blenheim-Gilboa Project as part of the FERC relicensing process.

The Power Authority proposes to conduct a literature-based fish entrainment and impingement assessment for the Blenheim-Gilboa Project. This desktop analysis, which will include an assessment of fish habitat in the vicinity of the intakes from construction and maintenance photographs, will be supplemented with field data collection of velocity and depth information in the area of the intake structures. This proposed study plan does not include an evaluation of potential fish-protection measures at the Project at this juncture (see Section 3.1 of the PSP for rationale).

2.3.2 GEOGRAPHIC SCOPE

For the purposes of this study, the study area includes the Lower and Upper Reservoirs of the Blenheim-Gilboa Project.

2.3.3 STUDY GOALS AND OBJECTIVES

The primary goal of this study is to provide a qualitative analysis of potential fish entrainment and impingement at the Project.

The specific objectives of this study are to:

- Characterize the physical and operational characteristics of the Francis type pump-turbines and intake structures of the Project;
- Summarize the fish species present in the Upper and Lower Reservoir based on existing data;
- Evaluate water quality conditions, specifically dissolved oxygen (DO) and temperature, at the intake locations to determine how these factors could affect the potential for fish entrainment;

- Qualitatively evaluate which fish species and life stages have the potential to be entrained or impinged during generation and pumping phases of operation, based on habitat preferences and behavior;
- Review entrainment studies conducted at similar pumped storage or large hydroelectric projects for relevance to potential entrainment and turbine passage survival at the Project; and
- Develop an estimate of turbine passage survival based on available information.

2.3.4 RELEVANT RESOURCE MANAGEMENT GOALS AND PUBLIC INTEREST CONSIDERATIONS

The NYSDEC manages the Upper and Lower Reservoirs as a coolwater fishery with an emphasis on Walleye and Smallmouth Bass, supplemented by a put-and-take trout fishery.

2.3.5 EXISTING INFORMATION AND NEED FOR ADDITIONAL INFORMATION

In the preparation of the PAD, existing information was compiled regarding the physical characteristics of the Blenheim-Gilboa Project. The PAD provides information on Project facilities, including Francis-type turbine specifications and operations in Sections 3.1 and 3.2 of the PAD, respectively.

The fish assemblage within the study area is comprised of both riverine and lacustrine species. The fishery is supplemented by stocking and contains no diadromous or threatened/endangered species in Project waters. For more information regarding the current fish assemblage and fish stocking history in the Lower and Upper Reservoirs of the Blenheim-Gilboa Project, please see Section 4.4 of the PAD. The PAD identified those fish species that are found in the study area and, therefore, may be potentially susceptible to entrainment and turbine mortality.

An evaluation of fish entrainment and turbine passage survival at the Project is needed so the resource agencies can understand the potential effects of Project operation on the fisheries resources.

2.3.6 PROJECT NEXUS

Continued operation of the Blenheim-Gilboa Project could potentially affect riverine and lacustrine fish species that utilize the aquatic habitat within the Project area. This information will provide insight on the effects of continued Project operation on the fisheries resources within the Project's reservoirs.

2.3.7 METHODOLOGY

The proposed study involves the qualitative assessment of entrainment, impingement and the probability of turbine passage survival at the Project using a review of relevant biological criteria and analysis of

physical Project characteristics. The Power Authority proposes to conduct a literature-based entrainment/impingement and turbine survival study to qualitatively assess potential fish entrainment and turbine survival at the Project.

Task 1. Describe Intake and Turbine Configurations

The first step in evaluating the potential for fish entrainment and survival is to consider the physical features of the reservoirs, intake structures, and Francis-type turbines that may affect entrainment and turbine passage survival. Project features and dimensions will be obtained from Power Authority engineering drawings, historical photos taken during construction of the Project, and recent bathymetric surveys of the reservoirs. This information will be used to calculate intake depths and velocities at various flow rates and to determine substrate near the intakes.

Task 2. Field Collection of Intake Velocities

The Power Authority will collect velocity, water depth, and substrate data from the Lower and Upper Reservoirs to confirm the information calculated or determined from existing information in Task 1. Water velocity and depth measurements in the vicinity of the intake structures in both the Upper and Lower Reservoirs will be collected using an Acoustic Doppler Current Profiler (ADCP). Substrate information will also be confirmed with the ADCP methodology. Velocity measurements will be collected along pre-determined transects in front of and adjacent to the intake structures during varying operational conditions. These data will then be used to verify the relative magnitude of calculated intake velocities and flow.

Task 3. Water Level and Water Quality Data Analysis

Water level and water quality data will be analyzed because the potential for fish entrainment and subsequent potential turbine survival can be affected by the following related factors: the reservoir water level (or storage capacity), intake velocities, the vertical temperature profile and location of a thermocline, and the dissolved oxygen (DO) concentration near the intake structures. Reservoir elevation duration curves will be developed on an annual basis for each reservoir based on hourly data collected by the Power Authority from 2001 - 2013. Project operational data will be analyzed to determine trends in timing and duration of pumping/generation cycles.

Bi-weekly water quality measurements collected by the Power Authority in 2012 within the Lower and Upper Reservoirs will be used to evaluate dissolved oxygen and thermal stratification near the intake structures. The profiles will then be analyzed to identify trends in factors, such as the depth of the

thermocline compared to the intake elevation, DO concentrations near the intake structures, and how these trends affect the potential for fish entrainment will be discussed.

Task 4. Entrainment Analysis

A summary of the existing fish assemblage in both reservoirs is provided in the PAD. Life history characteristics and habitat preferences of each species at different life stages will be reviewed in relation to reservoir intake configuration and water quality conditions. Based on these considerations, the fish species included in the entrainment analysis will be selected by determining which fish species, and at what life stages, are most likely to be present near the intake structures.

A qualitative scale of entrainment potential ranging from “Low” to “High” will be developed for each resident fish species documented as existing in both the Lower and Upper Reservoirs. The Power Authority will develop a summary of the life history traits and habitat requirements of fish species as they relate to affecting entrainment at the Blenheim-Gilboa Project from standard literature sources. Habitat use, swimming performance, behavior, and life stages, for example, are factors affecting entrainment potential. This process will index species and life stages of resident fish across a range from most to least prone to involuntary entrainment. The potential for involuntary entrainment of the most susceptible species will be assessed by comparing swim speed thresholds to intake velocity.

Based on existing scientific literature and the information compiled in Tasks 1 through 3, comparable projects will be identified, and the results from studies of those projects will be applied, in conjunction with the broader analysis, to estimate the likelihood of fish entrainment and survival at the Project.

Task 5. Impingement Analysis

Impingement on an intake trash rack may result in injury or death for fish. Not all fish species occurring in the Reservoirs may be equally susceptible to impingement because of their habitat use, behavior and swimming abilities relative to the Project intake velocities. After determining which fish species have the potential to be present in the area of the intake structures, an analysis will be performed to estimate the body length and width of fish that would be physically excluded by the bar rack spacing at each intake structure, and, thus, at risk for potential impingement. Fish of a size large enough as to not pass through the Project’s 5.25 to 5.625 inch trash racks will be considered susceptible to impingement due to size (i.e., length, width, and depth). The potential for involuntary impingement of these species will then be assessed by comparing swim speed thresholds to intake velocity.

Task 6. Assessment of Turbine Passage Survival

Mortality of an individual fish passing through the turbines at the Blenheim-Gilboa Project may result from blade strike, shear stress, and/or pressure changes. The Power Authority proposes to assess turbine survival in several different ways.

Investigations of fish turbine passage survival have been independently conducted at numerous hydroelectric projects throughout the country, providing a considerable data set from which a qualitative approach to assessing turbine passage survival at the Blenheim-Gilboa Project can be applied. Winchell et al. (2000) summarized turbine passage survival data reported in the EPRI (1997) database by turbine type, turbine characteristics, and fish size. Based on the consistency of results from numerous studies, it is apparent that fish size rather than species is the primary variable in determining the probability of survival through turbines, with smaller fish being more likely to survive turbine passage (Franke et al., 1997; Winchell et al., 2000). Species-specific estimates of fish mortality through Francis-type turbines (EPRI, 1992) indicate that survival rates across species are generally uniform. To estimate survival of fish that may be entrained and passed through the turbines at the Project, survival studies conducted at similar hydroelectric facilities with similar turbine types and hydraulic capacities to those at the Project will be examined and discussed.

Additionally, calculated estimates of turbine passage survival performed by the Department of Energy (DOE) (Franke et al., 1997) will be used to estimate the survival rate using a blade-strike model. The model uses various turbine, fish and operations characteristics to calculate a strike and survival probability.

A comparison of the differences in water pressure a fish would experience passing through the Project during both pumping and generating conditions at varying reservoir elevations will also be examined to estimate adverse effects on potentially entrained fish that pass through the turbines due to changes in water pressure.

Task 7. Study Report

Results will be presented in a summary report and discussed in regards to overall entrainment and turbine survival risk.

A tentative table of contents for this study will include:

- Introduction

- Study Objectives
- Project Description
- Velocity Measurements
- Fish Species
- Entrainment/Impingement Analysis
- Turbine Passage Survival
- Summary/Discussion

2.3.8 PROPOSED DELIVERABLES AND SCHEDULE

The Power Authority proposes to perform this study in 2015. Study reporting will be conducted in accordance with the Process Plan and Schedule (18 CFR § 5.6(d)(1)), as provided in the PAD, and the FERC’s SD1.

Task	Schedule
FERC Study Plan Determination	Anticipated to be February 19, 2015
Tasks 1, 3-6. Literature Search and Analyses	March – September 2015
Task 2. Collection of Field Velocity Data	May - June 2015
Task 7. Initial Study Report	October 2015 - February 2016

2.3.9 LEVEL OF EFFORT AND COST

The Power Authority believes the proposed level of effort will adequately assess fish entrainment and impingement at the Blenheim-Gilboa Project. The proposed approach is consistent with methods accepted by FERC at other hydroelectric projects, such as the St. Lawrence-FDR Power Project (P-2000), Niagara Power Project (P-2216), Muddy Run Pumped Storage Project (P-2355), Conowingo Project (P-405), and the Cannonsville Hydroelectric Project (P-13287); the study will provide information necessary to assess potential impacts of impingement and entrainment resulting from continued project operation on fisheries resources within the study area. The estimated cost for Phase 1 of this study plan is approximately \$65,000.

2.3.10 REFERENCES

Electric Power Research Institute (EPRI). 1992. Fish entrainment and turbine mortality review and guidelines. Technical Report TR-101231, Project 2694-01. Electrical Power Research Institute, Palo Alto, California. 282 p.

Electric Power Research Institute (EPRI). 1997. Turbine entrainment and survival database-field tests. Technical Report TR-108630. Electric Power Research Institute, Palo Alto, California. 13 p.

Franke, G.F., D.R Webb, R.K. Fisher, Jr., D. Mathur, P.N. Hopping, P.A. March, M.R. Headrick, I.T. Laczó, Y. Ventikso, and F. Sotiropoulos. 1997. Development of environmentally advanced hydropower turbine system design concepts. Report 2677-0141. U.S. Department of Energy, Idaho Falls, Idaho. 456 p.

Winchell, F., S. Amaral, and D. Dixon. 2000. Hydroelectric turbine entrainment and survival database: an alternative to field studies. Hydrovision 2000: New Realities, New Responses. HCI Publications, Kansas City, MO.

2.4 RECREATION USE/USER CONTACT STUDY AND ASSESSMENT OF EFFECTS THE PROJECT HAS ON RECREATION USE

2.4.1 GENERAL DESCRIPTION OF PROPOSED STUDY

The Power Authority proposes to conduct a Recreation Use/User Contact Study and Assessment of Effects of the Project on Recreation Use for the Blenheim-Gilboa Pumped Storage Project. The study will involve the collection of recreation use information through user counts at the Project recreation sites using traffic counters, calibration counts, spot counts, and registration attendance records. The study will also include a user survey to determine their use of the Project for recreation, and their perception of the available recreation opportunities, Project recreation sites and facilities. The survey will also request zip code information to assist with determining user distribution. The Power Authority proposes to use this information to determine recreation use of the Project including Project recreation sites and facilities. In addition, the Power Authority proposes to evaluate the adequacy of existing recreation facilities in meeting recreation needs and demand at the Project. The Power Authority will also use this information to assess the potential impact of continuing operation and maintenance of the Project on recreational use and existing Project recreation sites and facilities. The following Project recreation sites located within the Project boundary will be included in this study: Lansing Manor Complex, which includes the Visitors Center; Minekill State Park; the downstream fishing access; and the three access areas on the Upper Reservoir.

2.4.2 GEOGRAPHIC SCOPE

The study area encompasses lands and waters within the Project boundary that are available for public recreation.

2.4.3 STUDY GOALS AND OBJECTIVES

The goal of the study is to evaluate recreational use at the Project and to determine the adequacy of existing Project recreation sites and facilities in meeting recreation needs and demand at the Project.

The objectives of the study are:

- Determine the amount and types of recreation use at the Project;
- Interview the recreating public to determine users' perceptions with regard to their use of Project recreation sites and facilities;
- Evaluate recreational demand at the Project and determine if existing recreation sites and facilities are meeting the current demand; and

- Evaluate the effects of Project operation and maintenance on the recreation use at the Project and the usability of Project recreation sites and facilities.

2.4.4 RELEVANT RESOURCE MANAGEMENT GOALS AND PUBLIC INTEREST CONSIDERATIONS

The resource management goals of the agencies, such as New York State Office of Parks, Recreation, and Historic Preservation (OPRHP), are to enhance the recreational opportunities associated with the operation of the Project.

2.4.5 EXISTING INFORMATION AND NEED FOR ADDITIONAL INFORMATION

Existing Information:

Section 4.8 of the Pre-Application Document (PAD) provided information regarding recreation resources within the Project and surrounding area. The Project is located within the Saratoga/Capital District Region, as designated by the OPRHP. This region includes ten state parks, eight state historic sites, and one state park golf course. In addition to the state park facilities, there are pockets of other state lands including Keyserkill State Forest, Blenheim Hill State Forest, Leonard Hill State Forest, High Knob State Forest, and Gates Hill State Forest. This region is located directly north of the Catskill region of New York State. There are also two privately owned campgrounds near the Project. The Country Roads Campground is located just south of the Upper Reservoir and Nickerson Park Campground abuts the Project boundary along the western side of the Lower Reservoir.

In 2012, the Power Authority conducted an inventory of existing Project recreation sites and facilities, and the recreational opportunities found within the Project boundary. The Project provides a variety of recreation opportunities, including fishing, boating, hiking, biking, cross-country skiing, snowshoeing, picnicking, and swimming. The Power Authority recognizes seven recreation sites at the Project which include: Minekill State Park; three public access points on the Upper Reservoir; the Lansing Manor Complex, which includes the Visitors Center; and fishing access downstream of the dam. In addition, bow hunting for deer and turkey is permitted on Project lands during the state-regulated open seasons with a Power Authority archer permit. The Long Path, which extends 343 miles between Fort Lee Historical Park in New Jersey and Route 146 in Altamont, New York, crosses through the western side of the Project through Minekill State Park and the Lansing Manor Complex. The Bluebird Trail extends 2.5 miles between the Visitors Center at Lansing Manor and Minekill State Park ([NYPA, 2012c](#)). Additional information regarding these sites can be found in the PAD.

The 2014-2019 New York State Comprehensive Outdoor Recreation Plan (SCORP) was written by OPRHP to provide a statewide policy direction and to fulfill OPRHP's recreation and preservation mandate. It serves as an overall guidance document for recreation resource preservation, planning and development in New York State through 2019. According to the SCORP, the population of New York is only anticipated to increase by 2% from 2010 to 2030; however, the population is aging. The number of residents over the age of 65 is projected to increase by 38.2%. It is anticipated that recreation needs will shift from active recreation activities such as team sports to more passive recreation activities such as golf, relaxing in a park, and walking. The SCORP states that walking for enjoyment is now the recreation activity enjoyed by most New York residents. This was followed by relaxing in the park, swimming, biking, and boating. A relative index of needs was developed by county utilizing a numerical scale where +10 indicates the highest level of need and +1 indicates the least. Five was considered the statewide average. For Schoharie County the highest level of need was a +7 for local winter activities such as ice skating, sledding, and hockey. This was followed by a +6 for downhill skiing/snowboarding, snowmobiling, fishing, camping, and walking ([OPRHP, 2014](#)).

Need for Additional Information:

Additional information with respect to current recreation use of the Project and Project recreation sites and facilities, and recreational users' perceptions regarding their use of the Project will inform a decision on whether existing Project recreation sites and facilities are meeting public recreation needs and demands.

2.4.6 PROJECT NEXUS

FERC regulations require that the license application include a statement of the existing recreation measures or facilities to be continued or maintained and the new measures or facilities proposed by the applicant for the purpose of creating, preserving, or enhancing recreational opportunities at the Project and in its vicinity, and for the purpose of ensuring the safety of the public in its use of Project lands and waters. In addition, recreation is a recognized project purpose at FERC-licensed projects under section 10(a) of the Federal Power Act (FPA).

2.4.7 METHODOLOGY

Task 1. Background Research

The Power Authority will review existing information, such as the Project's Exhibit R to consider Project recreation site locations and determine the appropriate survey routes and locations for counter placement.

Existing and historic information on recreation use at the Project recreation sites will also be examined as part of the evaluation of recreation demand and site capacity at existing Project recreation sites. As part of this task, the Power Authority will reach out to OPRHP to determine available recreation use data for Minekill State Park.

Task 2. Field Work

The field work for this study will be conducted between the months of March 2015 and February 2016. Field data collection will involve a combination of spot counts, traffic counters, calibration counts, and actual use numbers recorded by the Power Authority or other recreation site operators. Spot counts will be conducted at all Project recreation sites, as identified in Task 1. Counts will be conducted on one weekday and one weekend day a month between the months of March 2015 and February 2016. In months containing a holiday (Memorial Day, 4th of July, Labor Day, and Columbus Day), an additional spot count will be conducted during the holiday or holiday weekend. The number of vehicles parked at each site and any observed recreation use will be recorded on data forms to determine the time-of-day use patterns at the sites. The spot count data will provide information on capacities and types of use and will be a component in the development of the overall use levels.

Traffic counters will be placed at Project recreation sites where the site is conducive to the effective use of a traffic counter and where one is needed to provide supplemental data for that site. Counters will be used to estimate the number of vehicles using the site. The traffic counters will be installed by Memorial Day weekend and will be removed at the end of the fall recreation season, typically in October. Throughout this period counters will be read and reset twice-weekly, typically on Friday afternoons and Monday mornings, to differentiate between weekday and weekend use. Traffic counter data will be used in conjunction with spot count and calibration data in developing use estimates.

Calibration counts will be conducted at each of the Project recreation sites, as identified in Task 1. Counts will be conducted on one weekday and one weekend day a month between the months of March 2015 and February 2016. Collected information will be documented on a data form. These counts will last for at least two hours per site on each calibration day. During a calibration count, data are recorded on information such as the number of people observed, observed activities, number of vehicles and trailers, and time entering and leaving the site (length of stay). With calibration data, recreation parties are recorded individually, unlike spot count data, which counts the total number of people at the site, but does not provide details by party. The calibrations are also used to verify that the traffic counters are

functioning properly. Calibration data will be combined with spot count data and, as available, traffic counter data to determine recreational use estimates at facilities.

All sampling days will be randomly selected and survey routes will be completed on a rotating basis and at different times of day to account for time-of-day use patterns and to eliminate sampling bias.

Actual use records will also be collected to the extent they are readily available from any of the recreation facilities that maintain such records.

Task 3. User Contact Survey

A user contact survey will be developed to determine users' perceptions with regards to their use of the Project for recreation and the existing Project recreation sites and facilities. The survey will ask recreationists what recreational activities they are participating in at the Project that day, and will also ask for the individuals' zip code to determine how far users travel to visit the Project for recreational purposes. This survey will also be used to determine length of stay and number of people in a party.

Task 4. Study Report

Information collected as part of the previous tasks will be entered into spreadsheets for statistical analysis. Traffic counter numbers and OPRHP (and other actual) use data, along with the spot count and calibration count data will be analyzed by a statistician to determine the amount of recreation use occurring within the Project boundary and project future recreational use over the term of a new license. Recreation use data for the Project will be summarized by season and activity type for each Project recreation site. Information from both the use counts and user contact survey will also be analyzed to determine whether existing recreational sites and opportunities are meeting recreation needs and existing facilities are meeting recreational demands. Recreation use information and user survey results will also be used to evaluate Project-related effects on the recreation use at the Project and the usability of Project recreation sites and facilities. An Initial Study Report will be filed within one year of FERC's Study Plan Determination. The Study Plan Determination is anticipated to be issued in February 2015. Because data collection will continue through February 2016, a final report will be included as part of the Updated Study Report.

2.4.8 PROPOSED DELIVERABLES AND SCHEDULE

Task	Schedule
FERC Study Plan Determination	Anticipated to be February 19, 2015
Task 1. Background Research	January 2015 – March 2015
Task 2. Field Work	March 2015 – February 2016
Task 3. User Contact Survey	March 2015 – February 2016
Task 4. Initial Study Report	Within one year of Study Plan Determination (Likely February 19, 2016) (Initial Study Report)

2.4.9 LEVEL OF EFFORT AND COST

The Power Authority believes that the proposed level of effort is sufficient to determine the adequacy of existing recreation facilities in meeting existing and future recreation needs at the Project. The estimated cost of the Recreation Use/User Contact Study and Assessment of the Effect of the Project on Recreation Use as outlined in this plan is approximately \$160,000.

2.4.10 REFERENCES

Federal Energy Regulatory Commission (FERC). 2006. Order Amending License. Blenheim-Gilboa Pumped Storage Project. Issued April 28, 2006.

Federal Energy Regulatory Commission (FERC). 2013. Revised List of Comprehensive Plans in the Federal Energy Regulatory Commission's Licensing Process. December 2013.

3368New York Power Authority (NYPA). 2012c. Recreation Facilities Summary. Blenheim-Gilboa Pumped Storage Project (FERC No. 2685).

New York Power Authority (NYPA). 2014. Pre-Application Document. Blenheim-Gilboa Pumped Storage Project (FERC No. 2685).

New York State Office of Park, Recreation, and Historic Preservation (OPRHP). 2014. Statewide Comprehensive Outdoor Recreation Plan (SCORP). March 2014.

2.5 EFFECT OF PROJECT OPERATIONS ON DOWNSTREAM FLOODING STUDY

2.5.1 GENERAL DESCRIPTION OF PROPOSED STUDY

The purpose of the study is to investigate the potential effects of the Power Authority's Blenheim-Gilboa Pumped Storage Power Project on downstream flooding as part of the Federal Energy Regulatory Commission (FERC) relicensing process. During the scoping meetings and commenting phase for the Scoping Document (SD1) and study requests, flooding issues were raised by stakeholders as potential areas for investigation. The Town of Blenheim, the Town of Gilboa, the Town of Fulton, the Town of Schoharie, Schoharie County Board of Supervisors, Dam Concerned Citizens, Blenheim Long Term Community Recovery Committee, and the Middleburgh Central School District either requested that a study be conducted on the extent to which the Project affects downstream flooding and/or how flooding could be reduced by Project operations. Some stakeholders also requested that the new license stipulate that water levels in the Project's reservoirs be drawn down in anticipation of a flood event to create storage for high flows. The Power Authority proposes to conduct a study to assess the effect of current Project operations on downstream flooding, if any.

2.5.2 GEOGRAPHIC SCOPE

The study area for flooding events occurring in the upper Schoharie Creek watershed includes the Schoharie Creek from the upstream end of the Lower Reservoir to downstream communities in Schoharie County.

2.5.3 STUDY GOALS AND OBJECTIVES

The primary goal of this study is to provide an analysis of the potential effect of the Project on downstream flooding.

The specific objectives of this study are to:

1. Estimate streamflows and water surface elevations along Schoharie Creek downstream of the Lower Dam for the 10-year, 50-year, 100-year, and 500-year precipitation events for scenarios with and without the Lower Dam for current operating procedures; and
2. Identify the impact of the Project on downstream water surface elevations and depths.

2.5.4 RELEVANT RESOURCE MANAGEMENT GOALS AND PUBLIC INTEREST CONSIDERATIONS

Several stakeholders have expressed concern that the Project may increase downstream flooding. The goal of this study is to investigate the effects of the Project on Schoharie Creek flooding downstream during high flow events.

2.5.5 EXISTING INFORMATION AND NEED FOR ADDITIONAL INFORMATION

There is existing USGS gage data that can be used to determine inflows and outflows from the Project for various flood conditions downstream of the Lower Dam. The modeling will utilize USGS gages data for the four flooding events.

A calibrated hydrologic model was developed as part of the site-specific Probable Maximum Precipitation/Probably Maximum Flood Study ([RJ Associates, 2009](#)) that was performed to comply with the FERC Part 12 regulations. The study and associated hydrologic model were reviewed and approved by both the FERC and an Independent Board of Consultants on November 30, 2009. The hydrologic model was developed using U.S. Army Corps of Engineers' (USACE) Hydrologic Engineering Center's Hydrologic Modeling System (HEC-HMS) computer program which is used to predict runoff and streamflows.

A hydraulic model was developed by the Power Authority to comply with FERC Part 12 regulations and to support the development of inundation mapping for its Emergency Action Plan (EAP). The Power Authority's Breach Analysis and EAP Inundation Mapping including the hydraulic model were approved by FERC in June 2014. The hydraulic model was developed using the USACE's Hydrologic Engineering Center's River Analysis System (HEC-RAS) computer program and is used to predict water depths and velocities for different streamflows.

The hydraulic analysis completed in 2014 used the most up to date topographic data available at the time it was developed, which was a combination of bathymetry (2011) and photogrammetry (2011) collected for the Lower Reservoir after Tropical Storm Irene, light detection and ranging (LiDAR) (1998) data, and USGS National Elevation Dataset (NED) Digital Elevation Model (DEM) data (1/3 arcsecond). The United States Geological Survey (USGS) is currently redeveloping LiDAR for Schoharie County.

2.5.6 PROJECT NEXUS

Pursuant to current license requirements, the Project is operated so that releases from the Lower Reservoir to Schoharie Creek equal inflows from Schoharie Creek upstream of the Project. The Project is not designed as a flood control facility and has no significant flood control capability. The information gained from this study will provide insight on the effects of the Project on downstream flooding, if any.

2.5.7 METHODOLOGY

Task 1. Hydrologic Model

The hydrologic analysis will use a combination of methodologies. The existing hydrologic model (HEC-HMS) will be used to determine inflows to the Lower Reservoir and a regression analysis of the USGS gage data will be used to determine streamflows downstream of the Lower Dam.

The existing hydrologic model (HEC-HMS) will be used to generate inflow hydrographs from precipitation associated with the 10-, 50-, 100-, and 500-year precipitation events. Precipitation for these events will be determined using the Northeast Regional Climate Center's Interactive Web Tool for Extreme Precipitation Analysis. The hydrologic model was previously calibrated to the September 1999 (Hurricane Floyd) and September 2004 (Hurricane Ivan) storms. The inflow hydrographs produced from this model will be used as one of the inputs into the Hydraulic Model in Task 3.

Task 2. Update Hydraulic Model

In the Breach Study, topographic information was obtained from a combination of bathymetry (2011), and photogrammetry (2011) after Tropical Storm Irene, LiDAR (1998), and DEM (1/3 arc-second) data. The USGS is scheduled to redevelop LiDAR data for Schoharie County in 2014 and it is assumed that these data will be publicly available through their website by March 2015 when this study is anticipated to begin.

The existing out-of-bank geometry in the HEC-RAS model will be updated with the 2014 USGS LiDAR data. It is assumed that this information will be available in a DEM format. The New York State Canal Corporation (NYCC) is currently collecting additional bridge information for the Flood Warning Operating System that it is developing. The HEC-RAS model will also be updated with this information if it is available at the start of study.

Task 3 Hydraulic Model Runs

The flow hydrographs generated by the hydrologic model for different storm events and scenarios will be routed downstream using the HEC-RAS hydraulic model to predict water surface elevations in Schoharie Creek between the upstream end of the Lower Reservoir through the downstream communities in Schoharie County. These results will be presented both with and without Lower Dam scenarios, for the various historical storms.

Task 4. Study Report

Study results will be summarized in a report that will include the methodology, results, and conclusions. The report will be distributed to interested stakeholders for review and comment. Appropriate comments will be incorporated into the report and then submitted to FERC in an Initial Study Report.

A tentative table of contents for this study will include:

- Introduction
- Study Objective
- Project Description
- Hydrologic Model Results
- Hydraulic Model Results
- Summary/Discussion

2.5.8 PROPOSED DELIVERABLES AND SCHEDULE

Task	Schedule
FERC Study Plan Determination	Anticipated to be February 19, 2015
Task 1. Hydrologic Model	June 2015
Task 2. Update Hydraulic Model	September 2015
Task 3. Hydraulic Model Runs	November 2015
Task 4. Study Report	February 2016

2.5.9 LEVEL OF EFFORT AND COST

The Power Authority believes that the proposed level of effort is adequate to analyze this issue. The estimated cost for the study outlined in this plan is approximately \$80,000.

2.5.10 REFERENCES

- United States Geological Survey (USGS), 2014. *In-Progress LIDAR Collections in NYS*.
<https://gis.ny.gov/elevation/documents/In-Progress-LIDAR-Coverage.pdf>. May 29, 2014.
- Gomez and Sullivan Engineers, P.C., 2014. *Blenheim-Gilboa Pumped Storage Power Project – FERC Project No. 2685-NY: Breach Analysis and EAP Mapping*. Prepared for New York Power Authority. March 2014.
- RJ Associates, 2009. Site-Specific Probable Maximum Flood Analysis. Prepared for the Blenheim Gilboa Pumped Storage Power Project (FERC Project No. 2685-NY, NATDAM #NY00691) owned/operated by the New York Power Authority. Prepared by RJ Associates LLC, April 2009.
- Site Specific PMF Study – FERC Response letter, November 30, 2009.
- TVGA. 2012. Lower Reservoir 2011 Bathymetry and Photogrammetric Survey. Blenheim-Gilboa Pumped Storage Project. Prepared for New York Power Authority. TVGA Consultants, Buffalo, NY.

2.6 SOCIOECONOMICS

2.6.1 GENERAL DESCRIPTION OF PROPOSED STUDY

In its Pre-Application Document (PAD) for the relicensing of the Blenheim-Gilboa Pumped Storage Project (Project) by the Federal Energy Regulatory Commission (FERC), the New York Power Authority (the Power Authority) described the socioeconomic characteristics (Sec 4.11) of Schoharie County and the Towns of Blenheim and Gilboa. The Power Authority proposes to build upon the socioeconomic information presented in the PAD by studying socioeconomic resources associated with the Project, as presented in this study plan.

2.6.2 GEOGRAPHIC SCOPE

The geographic scope of the proposed socioeconomic study includes the State of New York as a whole, Schoharie County, the taxing-entities in which the Project is located, and adjacent areas, as appropriate. Including the County, the Project lies within four taxing entities. These entities are: the Town of Blenheim, the Town of Gilboa, the Gilboa-Conesville School District, and Schoharie County. Though the jurisdictions of the School District and the County overlap with those of the towns, for purposes of this study each of these jurisdictions will be included in the study area and will be collectively considered the Local Communities. The socioeconomic effects of the Project, however, potentially extend beyond these entities into other communities, which provide support to the Project via first responder services. Therefore, the geographic scope for certain portions of the Socioeconomic Study will be expanded to include those Neighboring Communities that provide first responder services to the Project. For purposes of this study, definitions of these terms are provided as follows:

- **Local Communities** include those taxing entities in which the Power Authority owns Project lands¹. These communities include: Town of Blenheim, Town of Gilboa, Gilboa-Conesville School District, and Schoharie County.
- **Neighboring Communities** include those taxing entities which support the Blenheim-Gilboa Project by providing first responder service through fire departments, rescue squads, and emergency ambulance corps. These communities include: Town of Conesville, Hamlet of Grand Gorge (located in the Town of Roxbury), Town of Jefferson, and Town of Middleburgh.

¹ Project lands include those lands within the FERC Project Boundary.

2.6.3 STUDY GOALS AND OBJECTIVES

The objective of the Socioeconomic Study is to evaluate the socioeconomic impacts of the Blenheim-Gilboa Projects on the local and neighboring communities, as well as to the region and State. The study's specific objectives are:

1. To develop a demographic and economic profile of the current conditions of the Local and Neighboring Communities and to describe the socioeconomic character of those communities.
2. To evaluate potential socioeconomic impacts on the Local and Neighboring Communities resulting from the Project's operations and the Power Authority's tax-exempt status.
3. To evaluate potential economic impacts associated with the Local and Neighboring Communities providing first responder services.
4. To evaluate potential socioeconomic impacts on the Local and Neighboring Communities, the region, and the State resulting from the production of Power by the Project.

2.6.4 RELEVANT RESOURCE MANAGEMENT GOALS AND PUBLIC INTEREST CONSIDERATIONS

At public scoping meetings and via written submittals, several local stakeholders and representatives of the Local and Neighboring Communities indicated an interest in certain socioeconomic issues related to the Project and its operation. This socioeconomic study plan seeks to address specific socioeconomic aspects of the Project on a State, regional, and/or local basis.

2.6.5 EXISTING INFORMATION AND NEED FOR ADDITIONAL INFORMATION

Much of the data needed for the Socioeconomic Study are anticipated to be available from various published sources. Information for the demographic and economic profiles has been compiled by and can be readily obtained from governmental agencies, such as the US Census Bureau and the Bureau of Labor Statistics. Available data of this type includes population, age, race and ethnicity, housing, income, poverty rates, labor force participation, and unemployment rates. Demographic data are available at the town and county level. It is anticipated that data for the Gilboa-Conesville School District will need to be compiled from Census tract or block level data. Bureau of Labor Statistics data, such as labor force and unemployment rate, are compiled at the county level. Comprehensive plans and other planning and development reports prepared by local entities will also help to frame the socioeconomic background discussions. Data related to Project economics and the impact of the Project on electric generation regionally and in the State are available from the Power Authority. Additional information related to tax revenues, rates, and expenditures will be compiled from the taxing authorities of the Town of Blenheim, the Town of Gilboa, the Gilboa-Conesville School District, Schoharie County, and the State of New York.

2.6.6 PROJECT NEXUS

The operation of the Blenheim-Gilboa Project has the potential to impact socioeconomic resources of the surrounding communities, as well as those communities that provide the Project with first responder support. The analysis will be the basis for understanding the Project's potential socioeconomic effects on the Local and Neighboring Communities, as well as regionally and to the State.

2.6.7 METHODOLOGY

The Socioeconomic Study for the Blenheim-Gilboa Project will involve five primary tasks. These tasks are to:

1. Describe the economics of the Project at the State, regional, and local level;
2. Establish the baseline through demographic, housing, and economic profiles of the Local and Neighboring Communities;
3. Analyze the potential impact of the Power Authority's tax-exempt status on the Local Communities;
4. Evaluate the potential impacts of the Local and Neighboring Communities providing first responders support to the Project; and,
5. Prepare the Socioeconomic Study Report.

Each of these tasks is described in detail below.

Task 1. Describe the Economics of the Blenheim-Gilboa Project

Under Task 1, the economic impacts of the Blenheim-Gilboa Project will be investigated and described. The Project serves two vital functions to the State's electric consumers: it saves money for New York consumers by providing low-cost electricity when they need it most; and, it stores water for emergency power production. If necessary, this Project can be up and running within ten minutes. It can "pinch hit" if another plant or line suddenly goes out of service. One significant component of the Project's direct impacts on the local economy is its direct employment, that is, employees working for the Project and their associated wage income and benefits. Project-related expenditures by the Power Authority on goods and services in the area also have an impact on the economy. In addition, the Power Authority assists the communities through monetary and in-kind contributions. First responders, in particular, have been recipients of such contributions. Task 1 will provide an understanding of these components of Project economic impact.

Task 2. Establish the Baseline: Demographic, Housing, and Economic Profile

For Task 2, which requires the establishment of baseline socioeconomic conditions, a demographic, housing, and economic profile will be developed for each of the Local and Neighboring Communities. The demographic profile will include, at a minimum, the assessment of population (historical, current, and projected), age distribution, median household income and per capita income, poverty levels, racial and ethnic distribution, and educational attainment. It will also include an evaluation of trends and descriptions of anticipated changes over time. For comparison purposes, data from the State of New York and the United States also will be provided. Year 2010 decennial Census data will serve as the source for the majority of the demographic data. In addition, the most current Census population estimates will be provided, as available.

The housing profile will address characteristics such as housing units, median age, seasonal occupancy, vacancy rates, homeowner and rental status, value, and rent. Some housing data are collected by the Census Bureau as part of the American Community Survey, which is used to supplement decennial Census counts. Information from the most recent Survey for which data are available at the town-level will be used for the housing profiles. The economic profile of the Local and Neighboring Communities will be comprised of data on the labor force, unemployment rate, employment by industry, number of business establishments, and sources of employment. The majority of the economic data will be presented at the county-level, the lowest level for which data are compiled by the Bureau of Labor Statistics. Industry employment and occupation will be presented, however, at the town level, as the Census Bureau collects these statistics.

Available local planning documents will also be reviewed as part of Task 2 to provide additional background for the Local and Neighboring Communities. These planning documents will include comprehensive plans, such as the Town of Blenheim's *Comprehensive Plan* ([Blenheim, 2013](#), currently in draft form), as well as other documents related to socioeconomics, such as the *Schoharie County Long Range Economic Development Strategy* ([MSB, 2004](#)) and the *Blenheim, New York Long-term Community Recovery Plan* ([Town of Blenheim, 2012](#)).

Task 3. Analyze the Impact of the Power Authority's Tax-Exempt Status on the Local Communities

The work effort for Task 3 is to analyze more specifically the impact of the Power Authority's tax-exempt status on the Local Communities, which consist of the Towns of Blenheim and Gilboa, the Gilboa-Conesville School District, and Schoharie County. This will include a review and assessment regarding the relationship, if any, between the Power Authority's tax-exempt status and the economic health of

municipal, commercial, and business activity. Under Section 1012 of the New York State Public Authorities Law and other provisions of law, the Power Authority is exempt from state and local taxation. As a result, the Project does not pay New York State sales tax or local property taxes (although it does pay payroll taxes such as the unemployment tax).

Task 4. Describe the Impacts Related to Providing First Responders

The Project facilities are located within the jurisdictions of the Local Communities, meaning that the Local Communities are responsible for providing first responder services to the Project. Additionally, some nearby Neighboring Communities also provide first responder services to the Project. Task 4 will describe the impacts associated with the Local and Neighboring Communities providing first responder services to the Project.

Task 5. Prepare the Socioeconomic Study Report

After Tasks 1 through 4 have been completed, a comprehensive socioeconomic report will be developed. The report will describe the economics of the Project at the state, regional and local levels; present demographic, housing, and economic profiles of the Local and Neighboring Communities; evaluate the impacts of the Power Authority’s tax-exempt status; and address any Project-associated impacts on first responders.

2.6.8 PROPOSED DELIVERABLES AND SCHEDULE

Task	Schedule
FERC Study Plan Determination	Anticipated to be February 19, 2015
Task 1. Establishment of Baseline: Demographic and Economic Profile	Spring and Summer 2015
Task 2. Describe the Economics of the Blenheim-Gilboa Project	Spring and Summer 2015
Task 3. Analyze the Impact of the Power Authority’s Tax Exempt Status on Local Communities	Summer and Fall 2015
Task 4. Describe the Impacts to Related Providing First Responders	Summer and Fall 2015
Task 5. Prepare the Socioeconomic Study Report	Within one year of Study Plan Determination (Likely February 19, 2016)

2.6.9 LEVEL OF EFFORT AND COST

The estimated cost for the Socioeconomic Study is approximately \$50,000 to \$100,000. The Power Authority believes that the proposed level of effort is adequate to develop a socioeconomic study that addresses the key socioeconomic issues associated with the Blenheim-Gilboa Project.

2.6.10 REFERENCES

Town of Blenheim. 2012. Blenheim, New York May 2012 Long-term Community Recovery Plan. May 2012.

Moran, Stahl & Boyer, LLC (MSB). 2004. Schoharie County Long Range Economic Strategy. October 2004.

Town of Blenheim. 2013. Town of Blenheim Comprehensive Plan -Draft. Town of Blenheim Comprehensive Plan Committee. October 2013.

3.0 DISCUSSION OF ADDITIONAL STUDY REQUESTS

In addition to the study plans proposed in Section 2.0, several stakeholders requested additional studies. In accordance with FERC's criteria for study request, which were presented in Scoping Document 1, the Power Authority has concluded that these additional studies are unnecessary because: 1) there is sufficient existing information concerning the subject of the study proposal; 2) there is no nexus between Project operations and effects on the resource requested to be studied; or 3) these requested studies would not inform the development of license requirements. A discussion of each request is provided below.

3.1 FISH PROTECTION STUDY

The USFWS and NYSDEC requested a Fish Entrainment/Protection Study. These agencies defined resource management goals as management of the native fisheries in Project waters. There are no migratory or rare, threatened, or endangered fish species present in the Project Area.

The Power Authority proposes to conduct a qualitative assessment of fish entrainment at the Project as described in Section 2.3 of this Proposed Study Plan. However, the Power Authority is not proposing to conduct an evaluation of fish protection measures. The Power Authority's rationale is that the agencies' request to evaluate potential protection measures before the analysis of impacts has been performed is premature given that the entrainment study has not yet been completed. Additionally, there are several indicators that fish mortality through the turbines is low: 1) fish communities in the Upper and Lower Reservoir are similar; 2) with the exception of the species currently and historically stocked in the Upper Reservoir (*i.e.*, trout and bass), the fish community in the Upper Reservoir has been established through historical entrainment from the Lower Reservoir; and, 3) fish entrainment mortality in vicinity of the intakes in the Lower and Upper Reservoirs has not been reported.

The NYSDEC requested that the Power Authority conduct a quantitative entrainment and impingement study if a study at a comparable project cannot be found in the literature. The Power Authority is proposing to perform a literature review of comparable studies as described in Section 2.3 of the Proposed Study Plan (PSP). The Power Authority believes that such existing data from comparable projects is most likely available to adequately assess the potential for entrainment at the Project. Thus, the Power Authority does not believe there is a need for additional information (as set forth in FERC's Study Criterion four). The Power Authority is not proposing field studies beyond the velocity profile studies detailed in the entrainment study plan.

3.2 NORTHERN LONG-EARED BAT

The USFWS requested that the Power Authority conduct a Northern Long-Eared Bat (NLEB) survey at the Project. Northern Long-Eared Bat is proposed for listing as a federally endangered species. The USFWS's stated goal for the study would be to provide information on the existence of NLEB within the Project area and allow the USFWS and FERC to determine if existing or proposed Project activities may impact NLEB. The Power Authority does not anticipate proposing any new construction at the Project as part of its relicensing application. The only activities that the Power Authority would be undertaking that may have the potential to impact NLEB habitat would be maintenance activities, such as tree-clearing. These activities can be managed to protect NLEB and its habitat (e.g., restrictions on when tree-cutting or clearing could take place). Accordingly, during a telephone conference between the Power Authority and USFWS representatives on September 3, 2014, a consensus was reached that a field study is not needed at this time. The Power Authority will consult with the USFWS on specific management measures that should be taken in the future if any activities, such as tree-clearing, are proposed that would involve the potential to affect this species or its habitat.

3.3 DAM SAFETY AND ADEQUACY OF PROJECT GATES

Several stakeholders provided comments related to dam safety at the Project. More specifically, stakeholders requested more information regarding the safety of the dams, the adequacy of the Tainter gates and spillway in passing a Probable Maximum Flood (PMF) event, a request for a mapping study in case of dam failure, and an assessment of whether the Project could withstand an earthquake. Parties that commented on one or more of these topics included Schoharie County, Town of Middleburgh, Town of Fulton, Town of Blenheim, Schoharie County Board Supervisors (SCBS), Middleburgh Central Schools, (MCS), Dam Concerned Citizens (DCC), Bob Mann, and Robert Olsen.

FERC is responsible for monitoring and regulating dam safety at all FERC licensed projects on an ongoing basis outside of the relicensing process. FERC has the largest dam safety program in the U.S., and cooperates with other federal and state agencies to ensure and promote dam safety. Part 12 of FERC's regulations sets forth FERC's dam safety program for evaluating all water-retaining project facilities, including structures, spillways, gates and foundations.

As a FERC Licensed Project, the B-G Project is subject to a continuous, comprehensive dam safety program that is administered by a separate division of FERC Division of Dam Safety and Inspections. Any issues relating to dam safety are addressed continuously and in real time based on the Part 12 requirements. Studies and investigations that are needed to address dam safety are performed promptly

when they arise under FERC's Part 12 program. As such, the Power Authority is not proposing to conduct separate studies of dam safety as part of the relicensing process.

Under Part 12 Subpart D, the Blenheim-Gilboa Pumped Storage Power Project dam is required to have a Part 12 Inspection every five years. FERC regulations require that an Independent Consultant perform the inspection. The Independent Consultant must be a licensed professional engineer with at least 10 years' of experience in dam design and construction, and the inspecting engineer must be pre-approved by FERC. The 5-year inspection includes a physical field inspection of the project works and review of all relevant data concerning signs of settlement, movement, erosion, seepage, leakage, cracking, deterioration, seismicity (i.e., occurrence of earthquakes), internal stress and hydrostatic pressures in project structures or their foundations or abutments, the functioning of drains and relief wells, slope stability, and regional geologic conditions. The Part 12 inspections of the dam and other project works are for conditions that affect the safety of the project including gates and valves; unusual movement, subsidence or settlement of any part of the project; unusual concrete deterioration or cracking; piping, slides or settlements of materials in any dam, abutment, dike or embankment; changes or damage to slope protection; unusual instrument readings; changes or increases in seepage or leakage; sinkholes; significant instances of vandalism or sabotage; or any other signs of instability at any of the project works.

The Independent Consultant reviews the engineering design of the facility based on current FERC engineering design practices and site conditions and makes recommendations for updated analyses if warranted. For example, the Project's Inflow Design Flood, (the flow that the Project is required to safely pass) which is equal to the Probable Maximum Flood, has been updated twice since the original design. The Seventh Independent Consultant's Part 12 Safety Inspection was conducted on June 22-23, 2010.

Part 12 also requires project licensees to file safety reports on the condition of the project and project works routinely. Records that any project licensee, including the Power Authority, are required to keep include engineering and geological data related to the construction, maintenance, repair, or modification of the project; "as built" construction drawings; instrumentation observations and data; and information on the operational and maintenance history of the project, including information on project operations, shutdowns, and worker safety. If a licensee such as the Power Authority observes any conditions related to the above, they must notify FERC and file a report as soon as practical after that condition is discovered.

In addition to the physical field inspection of the project and review of relevant project data, Part 12 requires the Power Authority to incorporate a process called the Potential Failure Mode Analysis (PFMA)

to provide enhanced understanding and insight on the risk exposure associated with the water retaining structures at the B-G Project. A PFMA is an examination by a panel of experts of “potential” failure modes for an existing facility. It is based on a review of existing data and information, first hand input from field and operational personnel, site inspection, review of completed engineering analyses, identification of failure modes, failure causes and development, and an understanding of the consequences of failure. The last PFMA analysis was completed concurrently with the physical dam safety inspection in 2010.

Part 12 requires the Independent Consultant to evaluate the ability of project works to withstand an earthquake, the loading or overtopping which may occur from a flood up to the Inflow Design Flood, or the capacity of spillways to prevent the reservoir from rising to an elevation that would endanger the dam or other project works. The Inflow Design Flood for the Project is the Probable Maximum Flood (PMF).

An additional part of the Part 12 process is the Supporting Technical Information Document (STID) that captures the information necessary to have a complete understanding of the dam, as well as any analyses completed that support the findings regarding the safety of the structures. In all, the Part 12 review takes approximately a year to complete, and a thorough examination of all previous structural, hydrologic, hydraulic and geotechnical studies is made to ensure compliance with current standards. The most recent 5-year inspection of the B-G Project was conducted in 2010 as stated above. The STID was last updated in May 2012 to include the 2010 PFMA Supplement, 2011 as-built construction information that raised the minimum crest elevation at the Lower Reservoir to provide 1 foot of freeboard for passing the PMF, updated Tainter gate discharge curves, and updates to the dam safety surveillance and monitoring program.

In addition to the Part 12 inspection and analysis that is required every five years, FERC engineers conduct annual inspections of the B-G Project. The Power Authority’s engineers accompany FERC during these annual inspections which include an examination of all Project structures to ensure compliance with current standards. During the annual review FERC engineers also conduct a thorough review of the Project’s dam safety records. The most recent annual inspection of the B-G Project was conducted by FERC on April 28-29, 2014.

FERC also evaluates the effects of potential and actual large floods on the safety of dams. During and following floods, FERC staff visit project dams and determine the extent of damage. If damage is observed, FERC directs any necessary studies or remedial actions the dam owner must undertake to

address the issues. FERC engineers also inspect dams and project works following other types of natural disasters such as earthquakes and volcanos.

FERC's Part 12 regulations also require dam owners to monitor conditions at a project that could affect project safety. The Power Authority is required to make adequate provision for installing and maintaining appropriate monitoring instrumentation whenever any physical condition that might affect the stability of the Project has been discovered or is anticipated. Instrumentation must be satisfactory to FERC engineers, and may include instruments to monitor seismic effects; movement of joints, foundations or embankments; hydrostatic pressures; and internal stresses on the structure. At the B-G Project, the Power Authority's instrumentation to monitor the project embankments includes hydraulic piezometers, vibrating wire piezometers, groundwater wells, and crest settlement monuments. In addition, there are hydraulic piezometers to monitor uplift pressures in the powerhouse foundation. The Power Authority submitted its last annual Dam Safety Surveillance and Monitoring Report to FERC on December 30, 2013.

Under Part 12, the Power Authority is also responsible for routinely testing spillway gates. FERC requires that the Power Authority ensure that all spillway gates are operable at all times, particularly during adverse weather conditions. At least once each year, each spillway gate at the B-G Project must be operated to spill water, either during regular Project operation or on a test basis. Results of such gate tests must be reported to FERC annually. The gates were last tested on April 10, 2014. In addition, a full gate opening test is conducted every five years.

FERC's Part 12 regulations also require the Power Authority to prepare emergency action plans (EAP) and to conduct annual training sessions on the contents and testing of these plans. The Project EAP is designed to serve as an early warning system if there is the potential for, or a sudden release of water from the dam, in the event of dam failure, or accident to the dam. In accordance with FERC's requirements, the EAP includes a notification flowchart, as well as clear, concise and up-to-date inundation maps depicting potential dambreak scenarios. The EAP includes preventive actions to provide early warning and to respond to an emergency condition via emergency repairs and/or coordination of flows to prevent failure or minimize downstream flooding such as reducing reservoir levels and reducing downstream flows. The EAP also specifies procedures for notifying 24/7 emergency management agencies having jurisdiction to protect and evacuate the public. FERC requires the Power Authority to conduct annual meetings with EAP holders to review and update the plan to keep it workable. The EAP

is updated and tested periodically to ensure that in the event of an emergency everyone knows what to do. Additional information about the B-G Project EAP is provided in Section 4.2 of this document.

3.4 DOWNSTREAM AQUATIC RESOURCES

Some commenters requested that the Power Authority look at minimum flow issues in Schoharie Creek below the Project. The USFWS noted that it was an issue that should be evaluated but did not make a specific study request. The Town of Middleburgh also commented that there was a need for conservation releases from the Project to provide adequate flow for downstream aquatic life. The Schoharie County Board of Supervisors requested that the Power Authority compile an inventory of fish, benthic macroinvertebrates, ichthyoplankton, and zooplankton in Schoharie Creek between North Blenheim and Breakabeen. The request was based on their contention that a significant Brook Trout fishery existed downstream of the Project prior to Tropical Storm Irene induced flooding in 2011 and that a study could demonstrate the environmental benefits that could be derived from enhanced stream flow during the drier summer months. Schoharie County also pointed out that low flows in Schoharie Creek in the summer months have been caused by diversion of water from the New York City DEP owned and operated Schoharie Reservoir, upstream of the Project. This request is not project related because the Power Authority has no control over what is released from Schoharie Reservoir, which is impounded by Gilboa Dam. The County claims that evaporative losses from the Project are exacerbating low flow problems in Schoharie Creek below the Project. The County suggests that compensatory releases of flow from the reservoirs should be provided to make up for evaporative losses.

The Power Authority is not proposing to conduct the study requested by the County for a number of reasons. First, the request fails to have a nexus to the Project (FERC's Study Criterion five). The nexus to the Project put forth by the County about evaporative losses is inaccurate and the issue has already been addressed before FERC. As discussed in FERC's July 30, 1975 Order Approving Settlement Agreement for the Settlement Agreement with the towns of Fulton and Blenheim, the Power Authority operates the Project during low flows (i.e., no inflow from Schoharie Reservoir) to account for evaporative losses and releases water from storage to result in flows comparable to those which would have occurred if the Project had not been built. At other times, Project outflows essentially equal Project inflows. Thus, flows in Schoharie Creek below the Project are not impacted by evaporative losses or typical Project operations.

Second, the request fails to explain how the results of the study would inform the development of license requirements (FERC's Study Criterion five). The Project does not have the storage capacity to provide additional enhancement flows downstream to make up for the lack of releases from the upstream reservoir.

Inflow to the Project includes releases from Schoharie Reservoir and runoff from the small intervening watershed of about 40 square miles between the NYC DEP's Gilboa Dam and the Project. Neither the Power Authority nor FERC have control over the quantity of flow being released from the Schoharie Reservoir impounded by Gilboa Dam. Between the low level outlet and Tainter gates, the Project has the ability to release water at the Lower Dam into Schoharie Creek for the whole range of inflows to the Project.

Additionally, this request does not meet FERC's Study Criterion four, because it does not recognize the existing information supplied on these topics in the PAD. The Power Authority believes that sufficient information regarding aquatic resources in Schoharie Creek downstream of the Project is already available to analyze effects on continuing operation of the Project. The PAD includes a list of fish species, macroinvertebrates, ichthyoplankton, and zooplankton historically identified in Schoharie Creek downstream of the Project (See Sections 4.3.2.3, 4.4.1, 4.4.7 and 4.4.8 of PAD). The Power Authority's 2012 water quality monitoring showed that operation of the Project does not adversely affect water quality (See Section 4.3.2.3 of the PAD).

3.5 DOWNSTREAM WATER QUANTITY

Several stakeholders, including Dam Concerned Citizens, the Town of Blenheim, the Town of Fulton, and the Town of Middleburgh requested that the Power Authority conduct a hydrology study. In addition, some stakeholders requested that a flood warning system be developed for the Schoharie Valley. As explained in Section 3.3 above, the B-G Project is subject to a continuous, comprehensive dam safety program that is administered by a separate division of FERC. Any issues relating to dam safety are addressed continuously and in real time based on the Part 12 requirements. Because these are matters already addressed under FERC's Part 12 program, the Power Authority is not proposing to conduct these studies as part of the relicensing process.

Although not part of this relicensing process, the Power Authority advises stakeholders that the New York State Canal Corporation (NYSCC) is presently designing and implementing a Flood Warning Operating System (FWOS) which will address many of the stakeholders' stated concerns. The FWOS will measure rainfall amounts, monitor water levels and flow rates in reservoirs, lakes, rivers and streams, and provide notification of projected flood conditions on a near real-time basis. The first phase of the warning system will encompass three watersheds; the Oswego River Basin, Mohawk River Basin (which includes the Schoharie Creek Basin), and Upper Hudson River Basin. The system for these three watersheds will be functional by the end of 2015.

The FWOS will require development of hydrologic models, hydraulic models, and inundation maps. The hydrologic models, hydraulic models, and inundation mapping will be linked with a real-time forecasting model that will use National Weather Service precipitation forecasts, precipitation gages, and streamflow gages. The FWOS will generate real-time inundation maps showing predicted areas and depths of flooding. In this way, emergency managers and first responders will get more detailed and earlier data of impending flooding.

The FWOS for Schoharie Creek will include development of a hydrologic model of the entire Schoharie Creek basin including inflows to Schoharie Reservoir, development of a hydraulic model from Prattsville to its confluence with the Mohawk Basin, and inundation mapping. The Power Authority is supporting the NYSCC in development of the FWOS by sharing data that will be used in the hydraulic and hydrologic models and inundation mapping being developed for the Schoharie Creek Basin. The FWOS will incorporate the data that the communities have been seeking from the Power Authority into a very robust model/system. The communities' emergency managers will have access to FWOS. The information sought by the commenters will be readily available in a sophisticated system, in a timely manner.

3.6 PRE- AND POST-PROJECT FLORA AND FAUNA

The Town of Blenheim requested that the Power Authority consider the effect of the B-G facility on native fish populations compared to the pre-existing populations prior to constructing the B-G facility. The Town also requested that the Power Authority consider the effects of the Project on native fauna and flora as compared to the pre-existing health and propagation conditions prior to construction of the B-G facility.

The purpose of relicensing studies is to identify effects from continuing operation of the Project using current conditions as the baseline for evaluating Project effects and alternatives. This is consistent with FERC precedent.² The Power Authority is not proposing to conduct a study of pre-project conditions.

The PAD contains a great deal of information on existing fish, fauna, and flora in the Project boundary and within the Project vicinity. The Power Authority believes there is adequate information available to assess the effects of continued Project operation and proposed alternatives on biological resources and is not proposing additional data collection efforts in this study plan.

²*American Rivers v. FERC*, 201 F.3d 1186 (9th Cir. 1999) (the court found that it was reasonable for FERC to use an existing project baseline rather than use pre-project conditions as baseline conditions.)

3.7 DOWNSTREAM SEDIMENTATION AND EROSION

The Towns of Blenheim, Gilboa, Fulton, and Middleburgh commented that the effects of the Project on erosion and sedimentation as well as the geomorphology of Schoharie Creek below the Project should be assessed. The Power Authority is not proposing to conduct studies on these topics primarily because they fail to meet FERC's Study Criteria four and five and do not show a need for additional information and a nexus to project operations. Section 4.2 of the PAD provides a detailed discussion of geology and soils in the Project Area including past issues with erosion as well as stabilization measures that the Power Authority has instituted. A recent survey of land use, cover and terrestrial habitat ([NYPA, 2013³](#)) showed that the shoreline areas within the Project Boundary are not experiencing significant erosion because they are either well-armored (steeper slopes) or well vegetated (shallower slopes). The Lower Reservoir itself has generally been a depositional area because it is slower moving and sediment has more time to settle out. There is no indication that continuing Project operations are creating any erosion or sedimentation issues so the Power Authority does not believe any additional study is needed.

As noted in the PAD, dynamic natural flood events have caused significant erosion of Schoharie Creek both upstream and downstream of the Project. Because the Project has no significant flood control capability it is unable to change the impact of downstream flooding on stream geomorphology below the Lower Reservoir. During normal operations, outflow from the Lower Reservoir equals its inflow. In addition, the Project has no influence on stream geomorphology above the influence of the Lower Reservoir. Accordingly, there is no nexus between Project operations and downstream or upstream morphology.

3.8 EFFECT OF IMPOUNDMENT FLUCTUATIONS ON TERRESTRIAL RESOURCES

Though not specifically noted as a study request, the July 24, 2014 USFWS letter identifies "impacts from water level fluctuations in both the Upper and Lower Reservoirs" (Issue 4.2.3, Terrestrial Resources Bullets 1 and 2) as one of the "primary impacts that must be evaluated". The Power Authority is not proposing any new studies to evaluate this per FERC's Study Criterion four because there is no need for additional information in order to evaluate these impacts. The Power Authority conducted a baseline study in July of 2012 to update information pertaining to wetlands and shorelines. The study included a detailed cover type mapping and field verification study, including documentation of wetland, riparian, and littoral habitats within the Project. The Power Authority believes it has sufficient information to

³ New York Power Authority. (NYPA) 2013. Land Cover, Land Use, and Terrestrial Habitat Assessment.

adequately characterize impacts to wetland, riparian, and littoral areas within the Project boundary. As detailed in the July 2012 study ([NYPA, 2013](#)) and below, water level fluctuations do not limit the development of high quality wetlands or result in significant shoreline erosion.

The treeline along the shoreline of the Upper and Lower Reservoirs readily indicates the high-water line. Shoreline wetland development down gradient from the tree-line, within the zone of reservoir fluctuation, is dictated by topography and substrate. The shoreline of the Upper and Lower Reservoirs consists primarily of well-armored banks (bedrock, cobbles, or rip-rap) and well-established broad emergent wetlands. Topography dictates the location of wetland features along the shoreline, with steep banks devoid of wetlands while areas of level topography and fine sediments (sand and silt) support broad emergent wetlands. For example, an extensive emergent wetland system dominated by valuable native plant species (*e.g.*, *Potamogeton spp.*) occurs within a broad, gently-sloped delta associated with the mouth of the Mine Kill within the water level fluctuation zone of the Lower Reservoir.

Significant shoreline erosion was not observed along either the Upper or Lower Reservoir shorelines. Banks were either steep, well-armored slopes (bedrock, cobbles, or rip-rap) or more gently sloping areas with a stable, well vegetated, emergent zone. Most erosional features (undercutting, slumping, etc.) were observed along tributary streams (*e.g.*, the Minekill) and outside of the zone of fluctuation associated with the Project. Any erosion occurring along these tributary streams is a result of high flows within the tributary streams rather than a result of Project operations (erosion was observed above rather than below the influence of impoundment water levels). Further, turbidity levels do not appear to be influenced by Project operations ([NYPA, 2014a](#)⁴). Specifically, high turbidity correlates with precipitation and high flow events while turbidity levels remain low during low inflow periods regardless of Project operation, indicating that water level fluctuations are not mobilizing sediment or causing erosion.

3.9 AIR QUALITY

The Town of Fulton and the Schoharie County Board of Supervisors raised issues about greenhouse gases and cumulative impacts of the Project on air quality. The apparent concern is the incremental generation used by the Project between the energy storing (pumping) and energy supplying (generating) cycles. This amounts to less than 0.5% of the energy produced in New York, let alone the larger region. This use of energy can take place at any time of day and under any NYISO, or regional, system dispatch scenario.

⁴ New York Power Authority (NYPA). 2014. 2012 Water Quality Study. Blenheim-Gilboa Pumped Storage Project (FERC No. 2685).

FERC's regulations (18 CFR § 5.18) require the Power Authority to include in the license application a discussion of its plans and abilities to operate and maintain the Project in a manner most likely to provide efficient and reliable service and of the need over the short and long term for the electricity generated by the Project. This discussion includes providing information that evaluates the impact of uses of alternative sources of generation to the local communities, the region, and the State, were the Power Authority not to be granted a new license for the Project.

3.10 INVASIVE SPECIES

The Town of Blenheim requested that the Power Authority consider the effect that the construction of the B-G Project has had on invasive species propagation. As noted above, the purpose of relicensing studies is to identify effects from continuing operation of the Project using current conditions as the baseline for evaluating Project effects and alternatives.

The recent survey of land use, cover and terrestrial habitat ([NYPA, 2013](#)) provides details on current populations of invasive species at the Project and under FERC's Study Criterion four, the Power Authority does not believe additional information is needed to inform the relicensing process with respect to invasive species. Regarding plant species, there are some occasional occurrences of upland and wetland invasive species within the Project area but no large widespread stands of any species that would indicate a major problem requiring control efforts. There are some invasive insect species that have been identified, most notably the hemlock woolly adelgid (*Adelges tsugae*) that has been discovered in Minekill State Park. This insect originally came from Asia and has been spreading across New York for the last two decades infesting and eventually killing eastern hemlock trees. Management of this insect is not a relicensing issue and is not related to Project operations in any way.

4.0 DISCUSSION OF ADDITIONAL COMMENTS

In addition to study requests, several commenting parties made similar comments and requests. This section addresses the most common statements and requests.

4.1 ENVIRONMENTAL ASSESSMENT VS. ENVIRONMENTAL IMPACT STATEMENT

The Town of Blenheim, Town of Fulton, and SCBS requested that the Project undergo the process for an Environmental Impact Statement (EIS) rather than an Environmental Analysis (EA).

The process at this stage of the relicensing is identical, regardless of whether FERC ultimately develops an EIS or an EA. As required under the FERC's ILP guidelines, the Power Authority is currently developing information in order to prepare and file a final License Application with the FERC. The decision to use an EIS or an EA under the NEPA process is made by the FERC, and actions by the Power Authority will not determine which document FERC produces.

4.2 EMERGENCY ACTION PLAN

Several parties referenced the Project's Emergency Action Plan (EAP) and the Power Authority's role in emergency events. The Town of Schoharie requested that the Project engage in emergency response drills with local ambulances and fire departments. The Town of Blenheim requested that the Project notify Blenheim directly of dam emergencies and that the Power Authority should become an active partner in a comprehensive, coordinated emergency response network. Bob Mann echoed this request, commenting that the Power Authority should develop a strategy in conjunction with state, county, and town emergency response personnel.

As noted in Section 3.3 above, as part of FERC's dam safety program, in accordance with FERC Part 12 regulations, the Power Authority is required to prepare emergency action plans (EAPs) and to conduct training sessions on the contents and testing of these plans. The Project's EAP is designed to serve as an early warning system when there is the potential for, or a sudden release of water from the dam, in the event of dam failure, accident to the dam, or major flood event.

The Power Authority has prepared its EAP in accordance with FERC Guidelines based on FEMA's Federal Guidelines for Dam Safety: Emergency Action Planning for Dam Owners. (2013). In accordance with these requirements, the EAP includes a notification flowchart, as well as clear, concise and up-to-date inundation maps depicting the dambreak scenario. The EAP includes preventive actions to provide early warning and to respond to an emergency condition via emergency repairs and/or coordination of

flows to prevent failure or minimize downstream flooding, such as reducing reservoir levels and reducing downstream flows. The EAP includes operational procedures that may be used to help minimize downstream flooding as a result of a potential or actual dam break. The Power Authority developed the notification flowchart based on FEMA's guidelines for EAPs, which recommend that dam owners notify the local emergency authorities or 911 centers (Schoharie County Sheriff, Schoharie County Emergency Management Office and Schoharie County Communications Center) when an incident is anticipated, is imminent, or has occurred. The local emergency authorities having jurisdiction for evacuation of the public are selected for notification and should be available 24 hours a day, 7 days a week. In turn, it is the responsibility of these county emergency authorities to contact local first responders such as police and fire departments and affected residents and businesses with regards to warning and evacuation protocols. After the initial notifications to Schoharie County emergency authorities have been made, the Power Authority's operators focus on managing the incident, which caused activation of the EAP and provide periodic updates to Schoharie County emergency authorities throughout the duration of the incident. The Schoharie County emergency authorities manage evacuations if required and continues to disseminate the information to first responders and downstream Towns and residents.

The Project EAP was last updated on September 10, 2014 and a test of it will be performed by the end of 2014. A successful test of the EAP was last conducted on December 10, 2013. An aerial reconnaissance of the Schoharie Creek was conducted on December 12, 2013 by the Power Authority confirming that there were no significant changes to upstream and downstream conditions along the Schoharie Creek and upstream to the New York City owned Schoharie Reservoir. The annual Project Coordination Meeting took place on April 30, 2014. FERC accepted the Power Authority's updated EAP inundation mapping on June 18, 2014.

As noted, Emergency Action Planning and implementation is a FERC Part 12 dam safety activity whose review is not a relicensing activity. However, separate from the relicensing process, the Power Authority is willing to discuss with the Towns, first responders, Schoharie County Emergency Management Office, and the NYCDEP ways to improve emergency planning and implementation including assisting with emergency preparedness training and improving EAP activation notification to towns and residences located in the inundation mapping zones downstream of the NYCDEP's Gilboa Dam and the Power Authority's Lower Dam.

4.3 WHITEWATER RECREATION

American Whitewater requested that FERC require the Power Authority to supplement the PAD with additional information to adequately describe the impact of the Project on whitewater boating on Schoharie Creek. According to American Whitewater, the Project has potentially eliminated a significant whitewater boating opportunity and deprived the local community of economic benefits. American Whitewater is suggesting on-site or off-site mitigation by supporting conservation and recreation stewardship in the region to mitigate for the loss of whitewater boating opportunities.

As noted above, the purpose of relicensing studies is to identify the effects from continuing operation of the Project using current conditions as the baseline for evaluating Project effects and alternatives. The Power Authority has proposed to conduct a recreational use/user survey study in order to assess the recreational impacts, if any, of continuing Project operation. Requests, such as that by American Whitewater, would require the Power Authority to attempt to assess hypothetical pre-Project whitewater resources. Such an assessment would have to make assumptions about other development in the watershed, including the existence of the upstream Schoharie Reservoir. American Whitewater is requesting this type of information in order to develop protection, mitigation, and enhancement (PME) measures for the unsubstantiated loss of a pre-Project resource. PME measures for theoretical pre-Project impacts to resources that may or may not have existed prior to the construction of the Project are not required and are not being considered.

APPENDICES

Appendix A. Study request Letters

- 2014-05-05: Delaware Tribe NOI to file an Application for New License and Request for Designation as Non-Federal Representative
- 2014-05-08: Stockbridge-Munsee Tribal Historic Preservation Office Letter to FERC
- 2014-05-09: The Delaware Nation Cultural Preservation Office submits comments re Notice of Intent to relicense the Blenheim Gilboa Pumped Storage Power Project
- 2014-05-21: National Oceanic and Atmospheric Administration Letter Response to NOI
- 2014-07-17: Comments and Suggestions by the Town of Fulton for B-G Studies (filed with FERC 8/7/2014)
- 2014-07-24: US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request
- 2014-07-31: July 7, 2014 FERC Scoping Meeting Transcripts
- 2014-07-31: July 9, 2014 FERC Scoping Meeting Transcript
- 2014-08-04: Comment of Christian Strauch (North Blenheim)
- 2014-08-05: Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)
- 2014-08-06: American Whitewater's Comments in Response to the NOI, PAD, Pre-Filing Process, and Scoping
- 2014-08-06: Comment of Robert W. Olsen to FERC
- 2014-08-06: Comments of The Town of Scholarie regarding the relicensing of B-G
- 2014-08-06: FERC Filing From Comments from Dam Concerned Citizens: Re: Proposal for HEC-RAS Inundation Mapping Study
- 2014-08-06: Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's
- 2014-08-06: On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license
- 2014-08-07: Comment of NYSDEC on PAD and SD1
- 2014-08-07: Request for studies from Renee Grabowski
- 2014-08-07: Town of Middleburgh SD1 Comment Letter
- 2014-08-08: Comments of Michael P Devlin (Middleburgh Fire Department) on B-G Relicensing
- 2014-08-08: Comments of Schoharie County Board of Supervisors on SD1
- 2014-08-08: Mattice-Strauch, Anne PAD Comments
- 2014-08-08: Study Request of Town of Blenheim (Socioeconomic Impacts)
- 2014-08-08: Study requests from Town of Blenheim Supervisor
- 2014-08-08: Supplement to Comments from Town of Blenheim: Study Request for Application (Supervisor Shawn J. Smith)
- 2014-08-08: Town of Conesville Response to Blenheim-Gilboa Power Plant Re-License Application

Appendix B. Response to Resource Comments/Concerns

ID	Acronym	Filed By	Document	Comment	Official Response
CULTURAL RESOURCES					
1	DELAWARE NATION	Francis-Fourkill, Tamara (Delaware Nation)	2014-05-09:The Delaware Nation Cultural Preservation Office submits comments re Notice of Intent to relicense the Blenheim Gilboa Pumped Storage Power Project	The Delaware Nation Cultural Preservation Department received correspondence regarding the above referenced project. Our office is committed to protecting sites important to tribal heritage, culture and religion. Furthermore, the tribe is particularly concerned with archaeological sites that may contain human burials or remains, and associated funerary objects. As described in your correspondence and upon research of our database(s) and files, we find that the Lenape people occupied this area either prehistorically or historically. However, the location of the project does not endanger cultural or religious sites of interest to the Delaware Nation. Please continue with the project as planned. However, should this project inadvertently uncover an archaeological site or object(s), we request that you halt all construction and ground disturbance activities and immediately contact the appropriate state agencies, as well as our office (within 24 hours). Please Note the Delaware Nation, the Delaware Tribe of Indians, and the Stockbridge Munsee Band of Mohican Indians are the only Federally Recognized Delaware/Lenape entities in the United States and consultation must be made only with designated staff of these three tribes. We appreciate your cooperation in contacting the Delaware Nation Cultural Preservation Office to conduct proper Section 106 consultation. Should you have any questions regarding this email or future consultation feel free to contact our offices at 405-247-2448 or by email tfrancis@delawarenation.com.	Noted. If the Project uncovers an archaeological site or object, the Power Authority will halt activities and contact appropriate state agencies and the Delaware Nation within 24 hours.
2	MUNSEE	Hartley, Bonney (Stockbridge-Munee Tribal Historic Preservation Office)	2014-05-08:Stockbridge-Munsee Tribal Historic Preservation Office Letter to FERC	The project is in Mohican territory but we do not have concerns with the relicensing unless new construction is proposed that has the potential to disturb cultural resources, in which case we would anticipate being involved in consultation under our Section 106 of the National Historic Preservation Act responsibilities.	Noted.
3	DELAWARE TRIBE	Fink, Blair (Delaware Tribe)	2014-05-05:Delaware Tribe NOI to file an Application for New License and Request for Designation as Non-Federal Representative	Thank you for notifying the Delaware Tribe of the above referenced project. Our review indicates that this project is located in Schoharie County, NY. This is considered to be an area that was not inhabited by the Delaware Tribe. As such, there is little potential that the project will have an impact on any Delaware cultural and religious sites. The Delaware Tribe of Indians has no particular objection to the proposal and we do not wish to be a consulting party in further negotiations concerning this project.	Noted.
DAM SAFETY					
100	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Are the gates merely good enough for the flow that we're going to be having?	This comment/study request is addressed under FERC's Part 12 Dam Safety regulations as described in Section 3.3 of the Proposed Study Plan document.
123	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Request that independent engineering assessment of NYPA dams be done.	FERC's Part 12 regulations specify requirements for evaluating the safety of all licensed projects, including regular inspections of the dam and other project works. Therefore, this study is not needed as part of the relicensing process. More information regarding the Part 12 regulations and dam safety is provided in Section 3.3 of the Proposed Study Plan document.
124	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Study to assess whether project can withstand earthquake. Significant increase in seismic activity at Berne-Knox the day before Irene.	See Response to comment ID 123 .
125	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Study to assess whether project can withstand earthquake. Significant increase in seismic activity at Berne-Knox the day before Irene.	See Response to Comment ID 123 .
130	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Improvements to dam may be needed to prevent overtopping, such as additional gates.	See Response to comment ID 100 .

ID	Acronym	Filed By	Document	Comment	Official Response
131	Town of Fulton	Mix, Richard (Town of Fulton)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	A study conducted that determines if the spillway is capable of handling the Probable Maximum Flood.	See response to comment ID 100 .
132	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Emergency Action Plan Study. Plan didn't work well during Irene.	The Project's Emergency Action Plan is described in Section 3.3 of the Proposed Study Plan document.
133	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-07:Request for studies from Renee Grabowski	Emergency Action Plan Study. Plan didn't work well during Irene. It should be noted that NYPA stated it had to activate their Emergency Action Plan for the first time in its history during the 2011 event and this would also point to the fact that it should be studied and revised.	See response to comment ID 132 .
134	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Emergency Action Plan Study. Plan didn't work well during Irene.	See response to comment ID 132 .
135	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Concern that Town of Blenheim is not notified when catastrophic dam failure.	See response to comment ID 132 .
136	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Concern that Town of Blenheim is not notified when catastrophic dam failure.	See response to comment ID 132 .
140	MCS	Weaver, Michele (Middleburgh Central School District)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Need an evacuation system for flooding.	The EAP follows guidelines as set up by FEMA, which identify the local EMO as the party responsible for an evacuation plan.
158	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA should help fund flood warning system.	The Power Authority provided funding for the Schoharie County siren warning system.
166	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	The Town of Fulton requests that for its safety, a study of BG spillway be done to determine if its gates and valves are of adequate design for the maximum possible flood.	See response to comment ID 100 .
192	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	NYPA currently provide little or no advance notification to the populace downstream, including the Town of Blenheim as when releases might be made. This lack of communication/coordination could lead to the loss of human life and property.	See response to comment ID 132 .
203	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-08-08:Mattice-Strauch, Anne PAD Comments	The Power Authority poses a threat to life and property. Adequate notification of an emergency is a requirement of the NYPA's operating license. I believe that the NYPA is in violation of their operating license in this regard. It is their responsibility to ensure an adequate plan is in place. The NYPA chooses to deal with Schoharie County Emergency Management Office which has acknowledged that there is no adequate plan in place. As things stand right now there is no adequate way to warn the residents of the hamlet of North Blenheim of a dam breach.	See response to comment 132 .
218	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	Of final concern to DCC is the question of the capacity of the three Tainter Gates in operation at B/G to safely pass the Probable Maximum Flood, here after referred to as PMF. There seems to be a disagreement between NYCDEP and NYPA at B/G as to the volume and elevation of the PMF. NYPA should publically state what their estimate is of the PMF is at B/G. If there is a great divergence from the estimate as the volume and elevation from that of NYCDEP at Gilboa, this difference should be explained, and perhaps referred to a disinterested party. "Low balling", or underestimating the PMF, and over estimating the capacity of the release works of an earthen dam, to avoid having to augment the dams flood passing capacity is not acceptable to either the public or DCC. Transparency and disclosure of the NYPA estimate of the PMF at B/G should be a pre-requisite for the relicensing of project docket #2685-026.	See response to comment ID 100 .
219	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:FERC Filling From Comments from Dam Concerned Citizens: Re: Proposal for HEC-RAS Inundation Mapping Study	Request for HEC-RAS Inundation Mapping Study	This study request is addressed under FERC's Part 12 Dam Safety regulations as described in Section 3.3 of the Proposed Study Plan Document.

ID	Acronym	Filed By	Document	Comment	Official Response
223	CITIZEN	Olsen, Robert (Citizen)	2014-08-06:Comment of Robert W. Olsen to FERC.	The BG Project also placed two potential hazards to the Hamlet of North Blenheim in immediate proximity. The safety of the upper and lower reservoirs is a matter of great concern. The 2011 flood underscores that concern. NYPA admits to concern that the dam could be overtopped, which could lead to dam failure.	The Power Authority adheres to FERC Dam Safety program under Part 12 of its regulations. The investigations and reporting requirements under this program have not identified any concerns about overtopping or failure. See response to comment ID 100 .
226	CITIZEN	Olsen, Robert (Citizen)	2014-08-06:Comment of Robert W. Olsen to FERC.	The hydrologic data used in designing the BG Project is seriously outdated. If the safety of the two earthen dams at the heart of the BG Project is to be assured, a new hydrologic study of the entire Schoharie watershed is essential. NYPA should contract such a study and share it with Town and County agencies.	See response to comment ID 100 .
232	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	A study must be performed to ensure that the Blenheim-Gilboa Project will be able to withstand the increased levels of precipitation occurring in the Schoharie Valley since the issuance of the original license. Schoharie County believes that a study must be done to determine the ability of NYPA's three Tainter gates located in the earthen dam, impounding the lower reservoir of the Blenheim Gilboa Project to safely pass a Probable Maximum Flood (PMF) event.	See response to comment ID 100 .
252	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Schoharie regarding the relicensing of BG	The Town Board also requests that BG engages in emergency response drills with local ambulance and fire departments.	See response to comment 132 .
269	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should provide resources for improving cell phone coverage because it is needed during emergencies.	NYPA continues to assess enhancing cell phone coverage in the area of the project but this is a specific funding request that is not connected to the relicensing process.
270	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should notify Blenheim directly of dam emergencies	See response to comment ID 132 .
275	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should become an active partner in a comprehensive, coordinated emergency response network.	See response to comment ID 132 .
283	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	8. Consider effects of the impounding of a large quantity of water on the surrounding soil conditions adjacent to the upper reservoir including the earthen dam and related safety considerations for down-stream human populations	See response to comment ID 100
291	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	For study assessing adequacy of Taintor Gates should use 1.5 PMF.	See response to comment ID 100
292	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	For study assessing adequacy of Taintor Gates, NYPA should take into consideration existing studies estimating the PMF at Gilboa Dam.	See response to comment ID 100 .
301	Town of Middleburgh	Buzon, James (Town of Middleburgh)		The Town Board requests that BG regularly engage in emergency response drills with local ambulance and fire departments. It has been brought to our attention that BG has not invited the Middleburgh Volunteer Fire Department for a drill or site tour in many years	The Power Authority is willing to discuss with the Towns, first responders, Schoharie County Emergency Management Office, and the NYCDEP ways to improve emergency planning and implementation including assisting with emergency preparedness training and improving EAP activation notification to Towns and residences located in the inundation mapping zones downstream of the NYCDEP's Gilboa Dam and the Power Authority's Lower Dam.

ID	Acronym	Filed By	Document	Comment	Official Response
FISH AND AQUATIC RESOURCES					
4	NOAA	Colligan, Mary (National Oceanic and Atmospheric Administration)	2014-05-21:National Oceanic and Atmospheric Administration Letter Response to NOI	No species listed by NOAA's National Marine Fisheries Service (NMFS) as threatened or endangered, or species proposed for listing occur near the facility on Schoharie Creek, New York. There is also no designation or proposed critical habitat at the site. As such, no further coordination with us on the effects of the action on listed species or their critical habitat is necessary and we do not anticipate the need for consultation pursuant to Section 7 of the Endangered Species Act of 1973 (ESA), as amended, for the subject Federal action. Please direct any questions regarding the ESA and Section 7 consultation to Julie Crocker of our Protected Resources Division at (978) 282-8480. This project is not located within designated Essential Fish Habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act, and therefore an EFH consultation is not required. Due to current status of anadromous fishery resources in the vicinity of the site, we will not be providing recommendations under the Fish and Wildlife Coordination Act at this time. Please direct any questions regarding Essential Fish Habitat to Chris Boelke of our Habitat Conservation Division at (978) 281-9131.	Noted.
6	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The SD1 generally captures all of the issues related to fish and wildlife resources. The primary impacts that the Service believes must be evaluated include fish entrainment mortality (Issue 4.2.2, Bullet 2).	The Authority proposes to conduct a Fish Entrainment Study.
8	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The primary impacts that the Service believe must be evaluated included.....the adequacy of minimum flows downstream from the Project (Issue 4.2.2, Bullet 3).	See Section 3.4 of the Proposed Study Plan document.
12	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The Service requests that the applicant conduct a fish entrainment/protection study: Fish near the intakes, in both the Upper and Lower Reservoir, are subjected to potential mortality from entrainment. The wide spacing of the trashracks (in excess of 5"), probably ensures that impingement is negligible. However, should narrower-spaced trashracks or some other mechanism be chosen to reduce fish entrainment, the potential for impingement to occur would need to be addressed.	As described in Section 2.3 of the Proposed Study Plan, the Power Authority proposes to conduct a Fish Entrainment Study.
13	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	New licenses issued for conventional hydroelectric projects throughout New York and other areas of the Northeast have incorporated 1"-clear spaced trashracks or similar levels of protection to physically exclude most adult fish from the turbine intakes. However, pumped storage facilities have 2-way flow through the pump/turbines, which may render some forms of fish protection infeasible. The applicant should explore alternatives to keep fish species out of the turbine while protecting them from impingement.	As explained in Section 3.1 of the Study Plan Document, the Power Authority is proposing to conduct a literature-based fish entrainment and turbine survival assessment but is not proposing to conduct an evaluation of fish protection measures.
14	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The NYPA has proposed a Fish Entrainment and Turbine Passage Survival Study (Section 5.2.1 of the PAD). The Service supports this study.	Comment noted.

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15	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Indentification of Issues and Associated Study Request	Similar studies were recently conducted for competing applications for the Kinzua Pumped Storage Project (FERC #2280 and 13889). At the Kinzua Project, the Service recommended that all entrained fish be considered dead (i.e. lost to the fishery) due to the fact that the Upper Reservoir was an asphalt-lined bowl (equivalent to a flooded city parking lot) with no habitat for fish. Unlike Kinzua, the Blenheim-Gilboa Project actually has habitat in the Upper Reservoir, included the controlled-level ponds constructed by the NYPA during the existing license period. The NYPA should recognize that some fish may be re-entrained in the Upper Reservoir after surviving pumping from the Lower Reservoir. It is likely that mortality of these fish is much higher than merely doubling the entrainment mortality from once-through passage studies due to cumulative effects. The Service is not aware of any studies that have looked into this phenomenon.	See response to Comment ID 13 .
16	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Indentification of Issues and Associated Study Request	The NYPA should also expand this study to incorporate potential means of reducing fish entrainment and determine this applicability of each protection alternative to the Project. This portion of the study should include a literature search of available protection designs for the species of concern, as well as information on the relative effectiveness of each design. Existing facilities at other dams should be investigated. Careful attention should be paid to attraction flows, guidance mechanisms, and velocities. The fish must be diverted away from the turbines with screening small enough to physically exclude most fish found in Schoharie Creek and the two reservoirs. In addition to literature review and on-site investigations of existing facilities, the applicant should collect site-specific data from Schoharie Creek and the two reservoirs to aid in the design of protection facilities. This information should include flows, velocities, water depths, and substrates.	See response to comment ID 13 .
181	DEC	Little, William (NY State Department of Environmental Conservation)	2014-08-07:Comment of NYSDEC on PAD and SD1	DEC finds that a quantitative entrainment and impingement study should be conducted if a comparable study cannot be found from a literature review.	The Power Authority proposes to conduct a Fish Entrainment study. In that study, the Power Authority is proposing to perform a literature review of comparable studies and apply these results to the qualitative assessment proposed in the Section 2.3 of the Proposed Study Plan document. As explained in Section 3.1 of the Proposed Study Plan Document, the Power Authority believes that comparable studies will be available and complex field studies will not be needed.
184	DEC	Little, William (NY State Department of Environmental Conservation)	2014-08-07:Comment of NYSDEC on PAD and SD1	The Department concurs with the USFWS's July 25, 2014 request for a Fish Entrainment/Protection Study. This study is needed to determine the potential mortality from entrainment due to intakes at both the upper and lower reservoirs. Additionally, a study is needed to determine the potential for impingement against the current trashracks (spacing of 5.25") and for trashracks that may be suggested to replace the current trashracks if entrainment is found to be an issue for licensing, or for the Department's review of NYPA's water quality certificate application.	As described in Section 2.3 of the Proposed Study Plan, the Power Authority proposes to evaluate fish impingement as a task in its proposed Fish Entrainment Study.
189	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	5. Consider effects of the BG facility on native fish populations compared over the longterm (40 plus years) as compared to the pre-existing populations prior to the construction of the BG facility.	See detailed response in Section 3.6 of the Proposed Study Plan. In its Guide to Understanding and Applying the Integrated Licensing Process Study Criteria, FERC reiterates that FERC uses current conditions as its baseline for evaluating project effects and alternatives and that this consists of the environment as it exists at the time of licensing.
293	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	Compile an inventory of both fish and benthic macroinvertebrates in the Schoharie Creek between North Blenheim U.S.G.S. gage station #01350180 and U.S.G.S. gage station #01350355, Breakabeen.	See detailed response in Section 3.4 of the Proposed Study Plan Document.
294	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	Compile an inventory of Ichthyoplankton and Zooplankton in the reach of the Schoharie Creek located between U.S.G.S. stream gage #01350180, North Blenheim and U.S.G.S. stream gage #013500355, Breakabeen.	See detailed response in Section 3.4 of the Proposed Study Plan Document.
304	Town of Middleburgh	Buzon, James (Town of Middleburgh)		Important also is the need for the conservation release to provide adequate flow for the aquatic life of the stream to flourish in a habitat that requires the correct flow and temperature.	See Section 3.4 of the Proposed Study Plan Document.

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FLOODING					
79	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Independent review of NYPA's compliance with existing license.	See Sections 3.3 and 4.2 of the Proposed Study Plan document.
80	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	There is a basis to believe that NYPA violated some provisions of its FERC license with its operations during Tropical Storm Irene.	This comment is inaccurate. The Power Authority has provided FERC with a full report of the events of Tropical Storm Irene under Part 12 of its regulations.
81	Town of Esperance	Van Wormer III, Earl (Town of Esperance)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA violated 1975 Settlement Agreement with its operations during Tropical Storm Irene.	See response to comment ID 80 .
106	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Flood Study of the entire Schoharie Valley including major and minor tributaries.	The Power Authority proposes to conduct a Flooding Study. See Section 2.5 of the Proposed Study Plan document.
107	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Project should be modified to provide flood control.	Pursuant to current license requirements, the Project is operated so that releases from the Lower Reservoir to Schoharie Creek equal inflows from Schoharie Creek upstream of the Project. The Project has no significant flood control capability.
108	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Project should be modified to provide flood control.	See Response to Comment ID 107 .
110	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Project should be modified to provide flood control.	See Response to Comment ID 107 .
111	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Modify operating plan section of license to change to consider and offer protection to those persons who live downstream and those properties that are immediately and directly affected by any release.	See response to Comment ID 107 .
112	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Study should be undertaken of the flooding cycles, the new quantitative and qualitative measures of PMF, and appropriate strategies for flood mitigation, including better instrumentation, and better predictive models integrating new technologies.	As part of FERC's Part 12 Dam Safety requirements, a PMF study has been undertaken at the Project. See Section 3.3 of the proposed Study Plan Document for additional discussion. In addition, the Power Authority proposes to conduct a flooding study to assess the impact of the Project on downstream flooding.
113	MCS	Weaver, Michele (Middleburgh Central School District)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA should conduct a flood mitigation study to lessen flooding.	See Response to Comment ID 107 .
114	Town of Fulton	Mix, Richard (Town of Fulton)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	If NYPA had left room in the upper reservoir and capacity to pump up at the peak during the flood of 2011 with anywhere from 2500 cfs per unit and four units, they could have pumped 10,000 cfs during the flood. That would have mitigated the flood by about 10 percent and that would have really helped in the long run and would have been an excellent thing to have done.	See Response to Comment ID 80 .
115	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	If prior to Tropical Storm Irene, if NYPA had lowered the water level in the Upper Reservoir and pumped 13,000 cfs during the storm, it would have decreased the flooding depth by inches. Only 8 inches of water on school gymnasium floor and 10 inches in library during Irene flood which might have been averted by pumping.	See Response to Comment ID 80 .
116	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA should develop a strategy in conjunction with state, county and Town of Blenheim emergency response personnel to actively participate in flood prevention efforts.	As part of its Emergency Action Plan activities (see Section 4.2), the Power Authority works with emergency managers for readiness in the event of a dam failure. This includes an annual coordination meeting and tests of the EAP.

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126	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-08:Mattice-Strauch, Anne PAD Comments	During Hurricane Irene there was a malfunction and the NYPA was not able to open the gates to release water when they wanted to. By the time they were able to resolve the problem, the water level was such they were in fear of a dam breach. Instead of opening the gates slowly so that the water level would come up gradually, they had to open them much more quickly to relieve the pressure on the dam. This caused a surge of water down through the valley. One of our fire department and Town Board members was almost caught in this sudden surge of water and his truck came close to being washed away with him and his wife in it. The sudden surge is also what my husband believes, destroyed the Blenheim Covered Bridge. Instead of the water rising and coming up around the bridge slowly it came all at once and pushed the bridge off of its pylons. The timing of the surge and the bridge being destroyed coincides with the opening of the Power Authority's gates.	See response to comment ID 80 .
127	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA's actions during Tropical Storm Irene contribute to consequent flooding. Taintor gate malfunction caused a surge of water that coincided with when Blenheim Covered Bridge washed away.	See response to comment ID 80 .
128	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA's actions during Tropical Storm Irene contribute to consequent flooding. Taintor gate malfunction caused a surge of water that coincided with when Blenheim Covered Bridge washed away.	See response to comment ID 80 .
129	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA's actions during Tropical Storm Irene may have exacerbated flooding during Hurricane Irene.	See Response to Comment ID 80 .
137	Town of Esperance	Van Wormer III, Earl (Town of Esperance)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA didn't communicate with Schoharie County during Irene as required by its Emergency Action Plan.	See Response to Comment ID 80 .
160	Village of Richmondville	Neary, Kevin (Village of Richmondville)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Need better emergency preparedness and better forecasting of flow conditions with real time data.	See Sections 3.3 and 4.2 of the proposed Study Plan document for a discussion of the Project's Emergency Action Plan. NYSCC is developing and implementing a Flood Warning Operating System which encompasses the Schoharie Creek Basin.
165	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Project should be modified to provide flood control.	See Response to Comment ID 107 .
170	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	A comprehensive plan to mitigate flooding, conserve waterways, affected by the BG project, is needed.	See Response to Comment ID 107 .
178	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	In future high water events will BG leave room in the upper reservoir, so that if needed, pumping to reduce peak flooding can be done. In the flood of 1996 BG did this and it helped. If 4 pumps at about 2500cfs each were pumping it could reduce flood flow by about 10000cfs per hour. If timing of the peak flow can be anticipated, then a void could be created in the lower reservoir and holding back peak flow could also help. BG is not a flood control project but it can and has helped during high flow events.	See response to comment ID 107 .
180	Town of Fulton	Mix, Richard (Town of Fulton)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Unfortunately, in the flood of 2011, there were equipment malfunctions and operational malfunctions. And I'll clear that up that the gates were operated in an erratic manner during the flood and probably eviscerating the damage that was done to the communities and the valley.	See response to comment ID 80 .
212	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	It is further requested by Dam Concerned Citizens, hereafter referred to as DCC, that the two dam owning and operating entities on the Schoharie Creek, the NYPA and the NYCDEP conclude a mutual agreement establishing the basis for a coordinated program of void. Creation in their respective reservoirs, for the purpose of flood mitigation in the Schoharie Valley, downstream of their utilities.	This request is not related to the relicensing process. Comment is noted.

ID	Acronym	Filed By	Document	Comment	Official Response
213	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	The current Snow Pack Based Reservoir Management Plan, here after referred to as SPBMP, instituted by the NYCDEP in 2008, to pro-actively create storage capacity in the Schoharie Reservoir for waters resulting from snowmelt runoff and early spring rains should be used as a model for a similar pre-emptive program by NYPA at B/G. The SPBRMP is a component of the NYCDEP's Operation Support Tool, here after referred to as the OST.	Snowpack information will be incorporated in the NYSCC's Flood Warning Operating System which includes the Schoharie Valley (see response in Section 3.5 of the PSP).
214	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	It is the request of DCC that FERC require NYPA at B/G to develop a flood mitigating plan, consisting of void creation in the upper Reservoir and "pumping up" in time of flooding in the Schoharie Valley. DCC is cognizant that neither the Schoharie Reservoir/Gilboa Dam or B/G were designed as flood control structures and fully appreciated their contribution to the provisions of drinking water and electricity, respectively. However, the concept of separate and insular entities operating on the Schoharie Creek, and not using their infrastructure to its full flood mitigating potential, in time of need, is both incomprehensible and unacceptable.	See response to comment ID 107 .
215	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	An established protocol of co-operation flood mitigation by NYCDEP and NYPA would be of definite public benefit. DCC recognizes that FERC has no jurisdiction over NYCDEP at the Schoharie Reservoir/Gilboa Dam.	See response to comment ID 107 .
216	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	The fact that NYCDEP at Gilboa is in phone area code 607, while NYPA at B/G is in phone area code 518 is more than symbolic of the isolation the two agencies have from one another. Co-operation between NYPA and NYCDEP in the operation of their dams on the Schoharie Creek so as to maximize their flood mitigation potential should be improved. Proof of NYPA's efforts to approach NYCDEP to enhance co-operation between the two agencies should be made public and be a pre-requisite for the renewal of their License for project 2685-026.	See Response to Comment ID 212 .
217	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	NYPA, operating at B/G should be required to pass an all waters discharged preemptively by NYCDEP for the purpose of void creation in the Schoharie Reservoir, if a flood is imminent. Furthermore, FERC should require that a pre-emptive void be created in the B/G upper reservoir so that the 4 turbines present at the plant can pump up and thus remove up to 10,000 CFS from the flood waters of the Schoharie Creek.	The BG Project outlet works have the capability of passing the full range of inflows of 5 cfs and higher and therefore can pass any discharges from Gilboa Dam.
224	CITIZEN	Olsen, Robert (Citizen)	2014-08-06:Comment of Robert W. Olsen to FERC.	The attempt to reduce stress on the structure by raising the Tainter gates was plagued by problems. Power to the site was down. The generators failed to operate. Eventually, generated power was arranged and the gates raised. This success may well have resulted in a surge of water that devastated the hamlet of North Blenheim. Clearly, NYPA had not planned or prepared for such an event.	See response to comment ID 80 .
225	CITIZEN	Olsen, Robert (Citizen)	2014-08-06:Comment of Robert W. Olsen to FERC.	In response to the devastation caused by the 2011 flood the residents of the Town of Blenheim formed the Blenheim Long Term Community Recovery Committee (BLTCRC). The group is staffed by volunteers and sanctioned by the Town Board. Among the goals of the Committee is the mitigation of flood damage and restoration and development of the Town's economic base. To that end the cooperation of NYPA in the form of hydrologic data they possessed was requested several times in writing. No data was forthcoming. Attempts to meet face to face with NYPA management have consistently been denied.	Comment noted.
229	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-08-07:Request for studies from Renee Grabowski	It would be important to have that portion of their Operating Plan studied and changed to consider and offer protection to those persons who live downstream, the condition and impacts to the Schoharie Creek, and those properties that are immediately and directly affected by any release.	See response to Comment ID 107 .
230	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-08-07:Request for studies from Renee Grabowski	While it has been strongly argued that through the Hurricane Irene storm where NYPA could not get their gates to operate and open, when they finally got them operational, thus lowering the water level behind their earthen dam which, if that had been breached, would have been catastrophic,,,,, had their EAP allowed for early releases of water, draw down of their upper and/or lower reservoir, some of the devastation that occurred, like the destruction of the Blenheim Covered Bridge, may have been prevented.	See response to comment ID 80 .

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233	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	A study must be conducted to determine the extent to which the Blenheim-Gilboa Project can be operated in a manner that would mitigate periodic flooding in the Schoharie Valley.	See Response to Comment ID 106 .
243	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-08-08:Supplement to Comments from Town of Blenheim: Study Request for Application (Supervisor Shawn J. Smith)	History has shown us that NYPA considers the safety of Schoharie County residents irrelevant. Despite repeated requests from local officials (including myself), NYPA has refused to inform local emergency responders of their operating situation. This rendered Blenheim and Schoharie County virtually helpless during events such as Hurricanes Irene and Lee. During these catastrophes our local first responders were forced to operate without having the benefit of the information possessed by NYPA regarding reservoir levels and NYPA equipment malfunction at the Blenheim-Gilboa facility.	See response to comment ID 80 . See Sections 3.3 and 4.2 of the Proposed Study Plan document for a discussion of the Project's Emergency Action Plan.
244	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-08-08:Supplement to Comments from Town of Blenheim: Study Request for Application (Supervisor Shawn J. Smith)	Similarly, our investigations into NYPA's operation during recent flooding events has revealed that NYPA's operation of the Blenheim-Gilboa plant resulted in substantially more damage to communities along the Schoharie creek than would have otherwise been the case if the facility was not there. In short, NYPA's operation of the Blenheim-Gilboa plant creates a dangerous environment to all of the people that live downstream of it.	See response to comment ID 80 .
247	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Schoharie regarding the relicensing of BG	We have been severely impacted by the operation at BG concerning water released, therefore, we are requesting a complete hydrologic study be performed by an independent organization.	Pursuant to current license requirements, the Project is operated so that releases from the Lower Reservoir to Schoharie Creek equal inflows from Schoharie Creek upstream of the Project per the 1975 Settlement Agreement which is an Operating Plan for Water Management of the Project. The Settlement Agreement was approved by FERC on July 30, 1975. The objectives of the Operating Plan are to (1) prevent floods downstream of the Lower Dam of being more severe than they would be without the project; (2) maintain low flows as nearly as practicable to what they would be without the Project; and (3) keep fluctuations in downstream flows from being more severe than they would be without the Project. It should be noted that the NYSCC is developing a Flood Warning Operating System that has a hydrologic model component (see response in Section 3.5 of the PSP).
250	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Schoharie regarding the relicensing of BG	The Town of Schoharie also requests that BG be involved in flood mitigation.	See response to comment ID 107
253	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Schoharie regarding the relicensing of BG	The Town Board requests that BG help fund a hydrologic study of the lower Schoharie Creek to see if there are any possible projects that could help alleviate flooding along its path to the Mohawk. There may be places where diverting could be done to allow storage of overflow in areas that would not affect residences.	This comment is not related to the relicensing process.
256	Town of Blenheim	Alley, Robin (Town Blenheim)	2014-08-08:Study requests from Town of Blenheim Supervisor	The Town of Blenheim further requests that a hydrology study be undertaken to determine whether the B-G Plant can operate in a manner that will reduce the amount of flooding in the Town of Blenheim.	See Response to Comment ID 107 .
257	Town of Blenheim	Alley, Robin (Town Blenheim)	2014-08-08:Study requests from Town of Blenheim Supervisor	The B-G Plant appears to have the ability to limit flooding within our Town, and through the entire Schoharie valley, however the New York State Power Authority has told our Town on multiple occasions that they are unwilling to protect the Town from flooding because FERC does not allow such action to be taken.	See Response to Comment ID 106 .
258	Town of Blenheim	Alley, Robin (Town Blenheim)	2014-08-08:Study requests from Town of Blenheim Supervisor	The Town of Blenheim respectfully requests that a study be done to determine the B-G Plant's ability to reduce flooding during heavy rain; and if the ability exists the Town requests that any issuance of a new license be contingent upon the facilities willingness to engage in flood mitigation.	See Response to Comment ID 106 .
261	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA has refused to even meet with our Blenheim LTRC Committee to discuss our plans for the community's recovery	This comment is not related to the relicensing process.

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285	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	10. Consider potential effects the BG facility and associated water regulation may have had on the loss of the historic Blenheim Bridge, a cultural resource which directly impacts the environmental, human-element of the Town of Blenheim and Schoharie County.	See response to comment ID 80 .
288	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	13. Explore the potential of the BG facility to act as a flood control facility and to have FERC consider modification / change NYPA's operating license to include such capability and responsibility in times of flood threat(s).	See Response to Comment ID 107 .
297	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-08-07:Town of Middleburgh SD1 Comment Letter	It is our position that flood mitigation is essential to BG's new license.	See Response to Comment ID 107 .
GEOLOGY AND SOILS RESOURCES					
120	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Geomorphic study of Schoharie Creek.	See response in Section 3.7 of the Proposed Study Plan document.
121	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	According to AECOM study, there is not enough stream flow to keep gravel and sediment moving in Schoharie Creek so gravel bars are formed causing the creek bed to rise. Periodic releases would help keep creek channelized.	The Project does not control the quantity of water in Schoharie Creek; the Project operates so that outflow to Schoharie Creek equals inflow to the Project. More information is provided in Section 3.7 of the Proposed Study Plan Document.
168	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	The Town of Fulton also requests that a study be done to assess what should be done to prevent soil erosion and stream siltation of Schoharie Creek.	See Response to Comment ID 121 .
169	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	It stated in the current license (scoping doc. page 15 Flood Erosion Control Plan) that BG is suppose to help us, we have not seen any help. The Federal Government awarded a 17 million dollar grant to help Schoharie County restore the creek bed and to help mitigate future floods. Taxpayers have to pay for engineering costs and it's placed a tax burden on our county. We must exceed our tax cap to do this project. We are asking for help with this as it falls in line with requirements of its current license.	This comment is inaccurate as it references a plan to prevent erosion caused by project construction and operation. The request is not related to the relicensing.
282	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	7. Consider effects of the BG facility on alluvial sediment formation and creek-bed depth on the Schoharie Creek down-stream of the facility.	See Response to Comment ID 121 and section 3.7 of the Proposed Study Plan document.
OTHER					
68	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study requests from Town of Blenheim Supervisor	Preserve land by creating agricultural district. Agricultural heritage adversely impacted by construction of the project. Prevented NYPA from obtaining more land which it intended to do.	Comment noted.
70	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA should create a pilot solar community in Blenheim.	Comment noted.
72	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Name Visitors Center after farmer on whose land the Center is located.	Comment noted.
82	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	License term of 50 years is too long. Consider 30 year license term because things change.	The Federal Power Act requires a minimum license term of 30 years and a maximum license term of 50 years. The term of any new license issued for the Project will be determined by FERC.
83	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	License term of 50 years is too long. Consider 30 year license term because things change.	See Response to Comment ID 82 .
84	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	License term of 50 years is too long. Consider 30 year license term because things change.	See Response to Comment ID 82 .
85	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	License term of 50 years is too long. Consider 30 year license term because things change.	See Response to Comment ID 82 .

ID	Acronym	Filed By	Document	Comment	Official Response
86	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	FERC should deny license and dams should be removed.	FERC determined in SD1 that decommissioning is not a reasonable alternative to relicensing the project.
87	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	If project doesn't make money, then do not relicense it. Just leave it as a flood control facility or remove dam and restore the environment.	See Response to Comment ID 86 .
88	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Transmission lines should be included in license.	FERC has previously determined that the transmission lines are not part of the Project and should not be included in the license.
89	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	The transmission lines should be put back into the relicensing equation.	See Response to ID 88 .
90	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Turn project operation over to an alternative entity, either private sector or federal agency to operate if NYPA isn't complying with license requirements.	The Power Authority has a strong history of compliance with license requirements. FERC determined in SD1 that federal takeover is not a reasonable alternative.
91	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	At the time of construction of the BG facility, no full and comprehensive EIS was conducted...Relicensing provides FERC and NYPA a new opportunity to conduct a study that should have been done during project inception as part of the original license. A full and comprehensive EIS is requested instead of a more simple and less comprehensive EA due to the large scale of the affected region and the environmentally and cultural sensitivity of the affected region, including the impact to human element components of the environment affected by the BG facility.	As described in Section 4.1 of the Proposed Study Plan document, the decision whether to use an EIS or an EA is made by FERC. Also, as explained in greater detail in the Proposed Study Plan document, FERC uses current conditions as its baseline for evaluating project effects and alternatives and that this consists of the environment as it exists at the time of licensing.
92	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Request that FERC conduct a full and comprehensive EIS because project was constructed before NYPA which enhanced citizen participation. Therefore project impacts were not fully addressed when BG was constructed.	See Response to Comment ID 91 .
94	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-07:Request for studies from Renee Grabowski	Request that FERC conduct a full and comprehensive EIS because project was constructed before NYPA which enhanced citizen participation. Therefore project impacts were not fully addressed when BG was constructed.	See Response to Comment ID 91 .
95	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Request that FERC conduct a full and comprehensive EIS because project was constructed before NYPA which enhanced citizen participation. Therefore project impacts were not fully addressed when BG was constructed.	See response to Comment ID 91 .
96	CITIZEN	Noone, Joanne (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Request that FERC conduct a full and comprehensive EIS because project was constructed before NYPA which enhanced citizen participation. Therefore project impacts were not fully addressed when BG was constructed.	See Response to Comment ID 91 .
97	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Request that FERC conduct a full and comprehensive EIS because project was constructed before NYPA which enhanced citizen participation. Therefore project impacts were not fully addressed when BG was constructed.	See response to Comment ID 91 .
141	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA to commit to schedule for compensation to municipalities – looking for “off-line” agreement similar to what happened at St. Lawrence and Niagara.	The Power Authority has proposed to conduct a socioeconomic impact study. The Power Authority will assess impacts that are unique to the Project.

ID	Acronym	Filed By	Document	Comment	Official Response
142	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study requests from Town of Blenheim Supervisor	NYPA to commit to schedule for compensation to municipalities – looking for “off-line” agreement similar to what happened at St. Lawrence and Niagara.	See Response to Comment ID 141 .
145	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA didn't participate in Blenheim Long Term Recovery Plan.	Comment noted.
146	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA didn't participate in Blenheim Long Term Recovery Plan.	Comment noted.
147	Town of Fulton	Mix, Richard (Town of Fulton)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA didn't help Schoharie County by funding shortfall in \$17 M grant for Irene stream restoration even though license says they are supposed to help with stream siltation, erosion, soil erosion and pollution resulting from operation and maintenance and construction of the project.	Though noted, this is a comment not related to the relicensing process.
148	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA didn't help Schoharie County by funding shortfall in \$17 M grant for Irene stream restoration.	See Response to Comment ID 147 .
149	Town of Fulton	Skowfoe, Jr., Philip (Town of Fulton)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA didn't help Schoharie County by funding shortfall in \$17 M grant for Irene stream restoration.	See Response to Comment ID 147 .
150	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA denied requests to the communities for money and equipment following Irene.	This statement is not accurate; the comment is not related to the relicensing process.
151	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA denied requests to the communities for money and equipment following Irene.	See Response to Comment ID 150 .
152	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA denied requests to the communities for money and equipment following Irene.	See Response to Comment ID 150 .
153	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Blenheim Fire Department needs a tanker truck.	See Response to Comment ID 147 .
159	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Blenheim needs new highway maintenance garage. Current one is an unheated shed donated by NYPA.	See Response to Comment ID 147 .
161	Town of Esperance	Van Wormer III, Earl (Town of Esperance)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA could provide funding for Clarkson study of Hudson River weather system.	See Response to Comment ID 147 .
162	CRH	Stein, Eric (Cobleskill Regional Hospital)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Continued NYPA Support for Cobleskill Regional Hospital.	See response to Comment ID 147 .
172	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	What land not needed by BG for power production can be returned to the tax rolls?	The Power Authority will evaluate what lands are needed for Project operation and maintenance during the course of relicensing. If changes to the Project boundary are required, they will be proposed in the license application.
176	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	The town of Fulton requests a full environmental impact assessment be done	See Response to Comment ID 91 .
177	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	The environmental assessment should include environmental impact on host communities of SF6 (sulfur hexafluoride, is the most potent greenhouse gas that has been evaluated) is an ongoing concern.	Comment noted. See Section 3.9 of the Proposed Study Plan Document.
206	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-08-08:Mattice-Strauch, Anne PAD Comments	The NYPA is not a good neighbor and as a Town Board Member of the Town of Blenheim, I recommend that you do not renew their license and order that the Power project and the dams be dismantled so that the land can go back on the tax rolls and the dam will no longer pose a threat to the Town of Blenheim and other communities downstream.	See Response to Comment ID 86 .

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228	CITIZEN	Olsen, Robert (Citizen)	2014-08-06:Comment of Robert W. Olsen to FERC.	Considering the history of the relationship between NYPA and its host communities, it could easily be asserted that the 50 year license NYPA enjoyed has fostered a level of arrogance. I must question whether NYPA is worthy of relicensing. If the license is granted it certainly should not for a 50 year period. A 25 year license should be the absolute maximum.	See Response to Comment ID 82 .
235	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	The record in this proceeding must include a detailed study quantifying the cumulative effect of the burdens that the Blenheim-Gilboa Project imposes on Schoharie County and its residents;	See Response to Comment ID 141 .
236	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	A study must be conducted of the cumulative impacts of the Blenheim-Gilboa Project on air quality in New York State because energy purchased for pumping may be supplied by fossil-fired plants.	Comment noted. See Section 3.9 of the Proposed Study Plan Document.
237	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	A full environmental impact study is required to fully and fairly evaluate the foregoing studies and the "no project" alternative.	See Response to Comment ID 91 .
240	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	The Scoping Document erroneously concludes that decommissioning the Blenheim-Gilboa Project would result in the loss of a viable, safe, and clean renewable source of power to the region. While this statement may be true in most Commission licensing proceedings, it is demonstrably not true in the case of the Blenheim-Gilboa Project, which relies entirely on electricity taken from New York's Bulk Electric System to pump water from its lower reservoir to its upper reservoir, where it can later be released to produce electricity. Because NYPA has offered no proof that this electricity is supplied by clean renewable sources of power, this conclusion cannot be sustained on the current record.	See Response to Comment ID 86 .
242	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-08-08:Supplement to Comments from Town of Blenheim: Study Request for Application (Supervisor Shawn J. Smith)	The Town of Blenheim has reviewed the scoping document in this matter and was shocked to discover that it states no party has suggested that it would be appropriate to decommission the project at Blenheim-Gilboa. This assertion is erroneous.	See Response to Comment ID 86 .
246	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-08-08:Supplement to Comments from Town of Blenheim: Study Request for Application (Supervisor Shawn J. Smith)	As a result of the foregoing, the Town of Blenheim formally requests that FERC revise its scoping document in this matter to include a "No Project Alternative" as it is clear that the public interest would be greatly benefitted by such a review.	See Response to Comment ID. 86 .
249	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Schoharie regarding the relicensing of BG	The Town of Schoharie requests that FERC recognizes the climate change is impacting our environment to the extent that in 45 years we have already witnessed two historic floods and fear that a 50 year license is much too long a period of time to go without review. We ask that a 30 year license be considered with review every 10 years.	See Response to Comment ID 82 .
259	Town of Blenheim	Alley, Robin (Town of Blenheim)	2014-08-08:Study requests from Town of Blenheim Supervisor	We implore FERC to use its influence to urge the Power Authority to seek an independent authority such as Homeland Security or others who have knowledge and background to make suggestions.	Comment noted.
298	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-08-07:Town of Middleburgh SD1 Comment Letter	The Town Board of Middleburgh requests that FERC recognizes that climate change is impacting our environment to the extent that in 45 years we have already witnessed 2 historic floods and feel that a 50-year license is way too long given the most recent weather events. We request that FERC issue only a 30 year license that can be reviewed every 10 years.	See Response to Comment ID 82 .
307	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	We would like to see a 30-year license, including 10 year intervals for public input and considerations.	See Response to Comment ID 82 .
308	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	All Town and County Roads brought up to standards within a 15 mile radius of NYPA properties.	See Response to Comment ID 147 .

ID	Acronym	Filed By	Document	Comment	Official Response
309	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	A new Fire Dept Building, fire trucks and ambulance squad with two paid ALS & EMTS including fire certification. The emergency staff to be on NYPA payroll for 50 years.	See Response to Comment ID 147 .
310	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	Although cell service has been promised, it is imperative that the Town have good service. It was needed during flooding of Hurricane Irene.	See Response to Comment ID 147 .
311	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	Recreation is important to the Town. A Park on old Stryker Rd architecturally designed with restrooms and running water, park furniture/playground. To be maintained by NYPA.	See Response to Comment ID 147 .
313	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	The Towns' two main municipal buildings need to be enlarged and renovated. With population change more parking is needed also.	See Response to Comment ID 147 .
314	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	Thw Town has 38 cemeteries that it maintains. The largest one (the Gilboa Rural Cemetary) needs upgrades.	See Response to Comment ID 147 .
315	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	Safety is always an issue. The flood inundation sirens need regular maintenance.	Comment noted.
316	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	The Town Board would like to see low cost power to encourage business to grow and flourish in the town even for the municipal buildings.	Rates charged by a utility to consumers is not a relicensing issue over which FERC has any jurisdiction.
RECREATION RESOURCES					
73	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	To park and swim at Mine Kill State Park, one has to pay a fee. Schools no longer using the park because costs are too high.	The Power Authority is proposing to conduct a recreation use/user study as part of the relicensing. The results of the study will provide information to be used in determining whether new or improved recreational facilities and opportunities are needed as part of a new license for the Project. See Section 2.4 of the Proposed Study Plan document for more information.
74	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	To park and swim at Mine Kill State Park, one has to pay a fee. Residents of Blenheim and Gilboa were told they would have free admission. Schools no longer using the park because costs are too high.	See Response to Comment ID 73 .
75	MCS	Weaver, Michele (Middleburgh Central School District)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	To park and swim at Mine Kill State Park, one has to pay a fee. Schools no longer using the park because costs are too high.	See Response to Comment ID 73 .
76	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should aide with Greenway Plan on both banks of Schoharie Creek.	See Response to Comment ID 73 .
77	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA should provide funding for construction and maintenance of a multi-use trail along Schoharie Creek in Schoharie County from Esperance to Blenheim and Gilboa.	See Response to Comment ID 73 .

ID	Acronym	Filed By	Document	Comment	Official Response
163	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA used to clear the Lower Reservoir of debris for boaters, but no longer does this. The Lower Reservoir would be more desirable for recreational boating if NYPA resumed this practice.	Comment noted. Debris in a body of water is common and boaters are responsible for their personal safety while boating.
171	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	What can be done to encourage more tourism, boating , fishing, hunting and recreation?	See Response to Comment ID 73 .
175	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	Can recreational releases be done for special events?	Releases at the Lower Reservoir are dictated by the upstream Gilboa Dam owned by New York DEP and inflows from upstream tributaries. The Lower Reservoir has no significant storage capacity, and thus there are no changes in releases, which could be used to provide releases for recreation special events, boating or fishing.
185	AW	Nasdor, Robert (American Whitewater)	2014-08-06:American Whitewater's Comments in Response to the NOI, PAD, Pre-Filing Process, and Scoping.	The Licensee erroneously states in its Pre-Application Document that "[t]he Project is considered a 'closed cycle' because water is recycled between the reservoirs during Project operation." Contrary to the Licensee's assertion, the project has a damaging impact on river recreation, regional fisheries, and the ecological function of the river. These impacts include habitat fragmentation, blocking gravel and wood transport, and modification of the natural flow regime.	The FERC license for the Project defined the Project as a "closed cycle." A purpose of relicensing is to assess the impacts of continuing operation on power and non-power resources. The Power Authority has conducted as part of development of the PAD or is proposing to conduct studies to assess the effects of continuing Project operation on multiple non-power resources, including water quality and quantity, aquatic resources, wildlife and terrestrial resources, recreation, cultural resources, and socioeconomics.
186	AW	Nasdor, Robert (American Whitewater)	2014-08-06:American Whitewater's Comments in Response to the NOI, PAD, Pre-Filing Process, and Scoping.	It is unknown at present whether the section of the river that lay beneath the lower reservoir has inundated significant whitewater features; however, the licensee should be required to supplement its Pre-Application Document to include an appropriate analysis of the recreational impacts of its operation.	See Section 4.3 of the Proposed Study Plan document for response to this comment.
187	AW	Nasdor, Robert (American Whitewater)	2014-08-06:American Whitewater's Comments in Response to the NOI, PAD, Pre-Filing Process, and Scoping.	The Blenheim-Gilboa Pumped Storage Project has likely eliminated what would otherwise be a significant whitewater boating opportunity, both above and below the Lower Reservoir Dam, potentially depriving the local community of economic benefits. Other communities that have developed whitewater boating opportunities have experienced economic benefits that far outweigh the value of power generation. In some cases, communities have developed or are in the process of developing whitewater parks as an alternative to hydropower projects, creating tourism and other benefits to the community. In cases where decommissioning of a hydropower project is not the preferred alternative, it would be possible to compensate for this loss through either on-site or through off-site mitigation by supporting conservation and recreation stewardship in the region to mitigate for the loss of whitewater boating opportunities.	See Section 4.3 of the Proposed Study Plan document for response to this comment.
188	AW	Nasdor, Robert (American Whitewater)	2014-08-06:American Whitewater's Comments in Response to the NOI, PAD, Pre-Filing Process, and Scoping.	We respectfully request that FERC require the Licensee to supplement its Pre-Application Document with additional information to adequately describe the impact of the Blenheim-Gilboa Pumped Storage Project on whitewater boating on Schoharie Creek, and explore appropriate mitigation for lost whitewater boating opportunities due to the presence of project facilities and operations.	See Section 4.3 of the Proposed Study Plan document for response to this comment.
254	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Schoharie regarding the relicensing of BG	The Town Board requests that BG help provide a maintenance fund for the multi use trail that is being funded by New York Rising.	See Response to Comment ID 73 .
286	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	11. Document what changes to regulated and / or scheduled water impoundment releases by the BG facility might have on recreational resources such as canoeing, rafting, kayaking, fishing, etc.	See Response to Comment ID 175 .

ID	Acronym	Filed By	Document	Comment	Official Response
SOCIOECONOMIC RESOURCES					
38	Town of Fulton	Mix, Richard (Town of Fulton)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Socioeconomic Study to assess project economic benefits and impacts. Municipalities are not compensated for economic losses from project resulting from lost tax revenue from project lands and lands abandoned because of flooding. Blenheim lost 1/3 of its tax base due to construction of project.	The Power Authority has proposed to conduct a socioeconomic impact study. The Power Authority will assess impacts that are unique to the Project.
39	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Socioeconomic Study to assess project economic benefits and impacts. Municipalities are not compensated for economic losses from project resulting from lost tax revenue from project lands and lands abandoned because of flooding. Blenheim lost 1/3 of its tax base due to construction of project.	See Response to Comment ID 38 .
40	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Socioeconomic Study to assess project economic benefits and impacts. Municipalities are not compensated for economic losses from project resulting from lost tax revenue from project lands and lands abandoned because of flooding. Blenheim lost 1/3 of its tax base due to construction of project.	See Response to Comment ID 38 .
42	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Socioeconomic Study to assess project economic benefits and impacts. Municipalities are not compensated for economic losses from project resulting from lost tax revenue from project lands and lands abandoned because of flooding. Blenheim lost 1/3 of its tax base due to construction of project.	See Response to Comment ID 38 .
43	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-08:Mattice-Strauch, Anne PAD Comments	Socioeconomic Study to assess project economic benefits and impacts. Municipalities are not compensated for economic losses from project resulting from lost tax revenue from project lands and lands abandoned because of flooding. Blenheim lost 1/3 of its tax base due to construction of project.	See Response to Comment ID 38 .
44	CITIZEN	Noone, Joanne (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Socioeconomic Study to assess project economic benefits and impacts. Municipalities are not compensated for economic losses from project resulting from lost tax revenue from project lands and lands abandoned because of flooding. Blenheim lost 1/3 of its tax base due to construction of project.	See Response to Comment ID 38 .
45	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Property tax study of property taxes lost to communities as result of the project.	See Response to Comment ID 38 .
46	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Property tax study of property taxes lost to communities as result of the project.	See Response to Comment ID 38 .
47	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Property tax study of property taxes lost to communities as result of the project.	See Response to Comment ID 38 .
48	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Property tax study of property taxes lost to communities as result of the project.	See Response to Comment ID 38 .
49	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Many properties for project construction were obtained by eminent domain including Lansing Manor.	Comment noted.
50	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Many properties for project construction were obtained by eminent domain including Lansing Manor.	Comment noted.
51	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Many properties for project construction were obtained by eminent domain including Lansing Manor.	Comment noted.
52	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Provide details of \$580,000 that NYPA has provided to first responders. Complaint that NYPA more generous in the past and that now communities have to apply for grants.	See response to Comment ID 38 .

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54	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Provide details of \$580,000 that NYPA has provided to first responders. Complaint that NYPA more generous in the past and that now communities have to apply for grants.	See Response to Comment ID 38 .
55	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Provide details of \$580,000 that NYPA has provided to first responders. Complaint that NYPA more generous in the past and that now communities have to apply for grants.	See Response to Comment ID 38 .
56	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Provide details of \$580,000 that NYPA has provided to first responders. Complaint that NYPA more generous in the past and that now communities have to apply for grants.	See Response to Comment ID 38 .
57	Town of Conesville	Federice, William (Town of Conesville)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Provide details of \$580,000 that NYPA has provided to first responders. Complaint that NYPA more generous in the past and that now communities have to apply for grants.	See Response to Comment ID 38 .
58	Town of Fulton	Skowfoe, Jr., Philip (Town of Fulton)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Provide details of \$580,000 that NYPA has provided to first responders. Complaint that NYPA more generous in the past and that now communities have to apply for grants.	See Response to Comment ID 38 .
59	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA promised jobs for the community. Some during construction, but few now. Provide details about BG employees and where they reside (Blenheim, Gilboa, Schoharie County, and elsewhere).	See response to Comment ID 38 .
61	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA promised jobs for the community. Some during construction, but few now. Provide details about BG employees and where they reside (Blenheim, Gilboa, Schoharie County, and elsewhere).	See Response to Comment ID 38 .
62	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA promised jobs for the community. Some during construction, but few now. Provide details about BG employees and where they reside (Blenheim, Gilboa, Schoharie County, and elsewhere).	See Response to Comment ID 38 .
63	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	County residents should be given priority in employment at the Project.	Comment noted but this issue is not related to the relicensing process.
64	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should disclose BG Project revenue information because NYPA says BG doesn't generate revenues like St. Lawrence and Niagara.	Economic information will be provided in Exhibit D of the License Application.
65	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Road Conditions Study of Roads within 15 miles of BG. In past, NYPA made contributions to local communities.	This request is not related to the relicensing process.
66	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Road Conditions Study of Roads within 15 miles of BG. In past, NYPA made contributions to local communities.	See Response to Comment ID 65 .
67	Village of Richmondville	Neary, Kevin (Village of Richmondville)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA owns land in Richmondville where railroad is sited which is used for servicing BG transformers and other large equipment. This impacts the Village's infrastructure and emergency preparedness.	See Response to Comment ID 65 .
69	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Schoharie County is northernmost area of Appalachian region – poorest, neediest people, high percentage of elderly people.	Comment noted.
71	Town of Fulton	Skowfoe, Jr., Philip (Town of Fulton)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA employees are without a contract for 4 years. NYPA needs to reach agreement with employees and branch out to the communities.	Comment noted but this issue is not related to the relicensing process.
78	Village of Richmondville	Neary, Kevin (Village of Richmondville)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	SD1 should mention socioeconomics, emergency services and emergency preparedness.	FERC determines what issues should be assessed as part of the relicensing process.
122	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Funding for Blenheim Cultural Center (i.e historic church restoration), replacement of historic Blenheim Covered Bridge, and school house museum renovation.	This is a specific funding request that is not connected to the relicensing process.

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138	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-07:Request for studies from Renee Grabowski	Another issue, made even more obvious with the storm, is the need for cellular and internet coverage in our area and the NYPA location. NYPA has been asked to assist the county and the area in getting coverage. We understand that NYPA has taken steps to get cellular and internet to their facility but has done very little to bring these services to the area in general. We feel this was done to satisfy their own self-interests and they have little regard for their host towns and neighbors. This is also demonstrated by their lack of notification to the Town of Blenheim, and Schoharie County Emergency Management Office of their standard releases, of construction projects or other work that occurs at the facility.	See response to Comment ID 122 .
139	Town of Esperance	Van Wormer III, Earl (Town of Esperance)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Improve cell phone service to the area.	See Response to Comment ID 122 .
143	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA should install turbine/generator at low level release to generate power to sell to local communities.	The Power Authority is not considering installing a new turbine/generator at this time.
144	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA to provide low cost power to local communities.	This request is not related to the relicensing process.
154	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	If NYPA used Blenheim post office for outgoing mail then the post office would be open more hours and be off national "hit List" for post office closings.	See Response to Comment ID 122 .
155	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	If NYPA used Blenheim post office for outgoing mail then the post office would be open more hours and be off national "hit List" for post office closings. Socioeconomic study should include impact of the potential loss of the North Blenheim post office.	See Response to Comment ID 122 .
156	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Study a separate fire/EMT department to serve BG that is located outside PB.	See Response to Comment ID 38 .
157	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA should support Schoharie Valley public transportation.	See Response to Comment ID 122 .
167	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	The Town of Fulton requests that an economic impact study of BG on host communities and the County be done.	See Response to Comment ID 38 .
173	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	Support for emergency services needs to be increased as BG places a burden on our fire and ambulance services.	See Response to Comment ID 38 .
193	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	The Public Interest Considerations should also include socio-economic studies within the EIS and any such further studies as defined within the New York State Environmental Quality Review Act as an integral part of any EIS. The inclusion of NYSEQR in any required EIS further incorporates additional Public Interest Considerations as identified under New York State Law.	See Response to Comment ID 38 .
202	Town of Conesville	Federice, William (Town of Conesville)	2014-08-08:Town of Conesville Response to Blenheim-Gilboa Power Plant Re-License Application	What little NYPA has contributed to the surrounding communities pales when considering the services provided and property tax liability for property taxes but there is a fairness issue to be considered in light of the impact by the loss of tax revenues to the affected towns and county.	See Response to Comment ID 38 .
204	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-08-08:Mattice-Strauch, Anne PAD Comments	We have not received any tax revenue for that land for almost 50 years. The plan and all the land the NYPA took sits there tax free. Meanwhile, Benheim can't even afford to send our children to participate with the schools in the Mine Kill swim program.	See Response to Comment ID 38 .
205	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-08-08:Mattice-Strauch, Anne PAD Comments	The Power Authority has refused to share any studies they have done. Since they refuse to share any information with the Town or County.	Comment noted.

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220	Town of Middleburgh	Devlin, Michael P (Middleburgh Fire Department)	2014-08-08:Comments of Michael P Devlin (Middleburgh Fire Department) on BG Relicensing	The main objective for The Middleburgh Fire Department for the comment on Relicensing is our issue from financial burden for Emergency Service and to effectively mitigate all types of incidents we may encounter over the next 50 years. The Middleburgh Fire Department's need for financial assistance for over the next 50 years of service is substantial due to the tremendous impact from Hurricane Irene and Tropical Storm Lee.	See Response to Comment ID 38 .
221	Town of Middleburgh	Devlin, Michael P (Middleburgh Fire Department)	2014-08-08:Comments of Michael P Devlin (Middleburgh Fire Department) on BG Relicensing	Seeking funding over the next 50 years, we will provide direct fire protection for our population of approximately 4,600 residents. With the tremendously and devastating impact from Hurricane Irene and Tropical Storm Lee, the Middleburgh Fire Department was self-sufficient. However, now this funding is a necessity to continue our mission and provide the utmost best fire protection possible especially in this time of need.	See Response to Comment ID 38 .
222	Town of Middleburgh	Devlin, Michael P (Middleburgh Fire Department)	2014-08-08:Comments of Michael P Devlin (Middleburgh Fire Department) on BG Relicensing	Proposals: Building Renovation/Rehabilitate Quote \$10,167,370.00 2 Ladder Truck Quint (replacement of 1 unit after 25 years) Quote \$3,500,000.00 2 Fire Engine Pumper/Tanker (replacement of 1 unit after 25 years) Quote \$567,469.00 2 SEFU Storm Emergency Fire Unit (state contract) (replacement of 1 unit after 25 years) Quote \$440,000.00 First Responder units (replacement of 1 unit after 25 years) Quote \$225,000.00 New Turn Out Gear (state contract) (NFPA requires replacement every 10yrs.) Quote \$425,000.75 Jaws of Life new set w/back up Quote \$79,845.32 Total \$15,404,685.07	See Response to Comment ID 122 .
227	CITIZEN	Olsen, Robert (Citizen)	2014-08-06:Comment of Robert W. Olsen to FERC.	Expense may be pleaded by NYPA in this case. They stress their intense efforts to "buy low and sell high" in the attempt to remain viable. They neglect to mention that they are subsidized to the extent of over \$20K daily to simply be present and ready to provide power to the grid. While support for the grid is a worthy activity, the arrangement hardly induces financial pain.	The value of power as well as capacity is established by the NYISO.
231	Town of Blenheim	Grabowski, Renee (Town of Blenheim)	2014-08-07:Request for studies from Renee Grabowski	It is my opinion that this facility does little to nothing directly FOR the Town of Blenheim – I would like to be shown how this is incorrect and request a study showing how they have aided the Town that has lost a substantial amount of real estate and real property taxes due to this facility would and should be requested.	See Response to Comment ID 38 .
241	CITIZEN	Strauch, Christian (North Blenheim)	2014-08-04:Comment of Christian Strauch (North Blenheim).	It seems incredulous to me that the NYPA has been running tax free for almost 50 years without any financial compensation to the communities it resides in. The Visitors Center holds events, but no one in the host communities really benefits from them financially. I realize that there are less than 400 people in the Town of Blenheim and that the Blenheim-Gilboa pump storage facility is there to benefit the larger portion of the state. However, I believe that the host communities should receive some financial compensation for the loss of land (tax base) and the fact that if a private company operated the pump storage facility, there would be large financial compensation in the way of land taxes.	See Response to Comment ID 38 .
245	Town of Blenheim	Smith, Shawn (Town of Blenheim)	2014-08-08:Supplement to Comments from Town of Blenheim: Study Request for Application (Supervisor Shawn J. Smith)	The only equitable way to determine whether it would be cost effective to require NYPA to remove the Blenheim-Gilboa plant would be to undertake a study to determine what costs would actually be required in decommissioning the plant and then compare that cost figure with the costs currently paid by local communities to repair the damage caused by NYPA's operation.	FERC determined in SD1 that decommissioning is not a reasonable alternative to relicensing the project.
251	Town of Schoharie	Milone, Eugene (Town of Schoharie)	2014-08-06:Comments of The Town of Scholarie regarding the relicensing of BG	We also request that BG provide an allotment of power to offset electric rates for those towns that lie downstream of BG.	See Response to Comment ID 144 .

ID	Acronym	Filed By	Document	Comment	Official Response
255	Town of Blenheim	Alley, Robin (Town Blenheim)	2014-08-08:Study requests from Town of Blenheim Supervisor	The Town of Blenheim requests that a socio economic study be completed in an effort to determine the extent of the extreme financial burden that has been placed upon the Town of Blenheim as a result of the B-G Plant's operation within our Town.	See Response to Comment ID 38 .
260	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Socioeconomic study should assess cost to local communities of providing substantial services to tax-exempt NYPA, in maintenance of roads, bridges and other infrastructure, and in provision of emergency response services to their facilities	See Response to Comment ID 38 .
266	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Blenheim is seeking funding for projects that are part of Long Term Community Recovery Plan.	See Response to Comment ID 122 .
267	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Socioeconomic study should assess impact of the loss of real property tax revenue over 50 years.	See Response to Comment ID 38 .
268	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA needs to provide financial resources to host communities and to the County for enhanced capacity for emergency response, both in equipment and training.	See Response to Comment ID 38 .
271	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Socioeconomic study should assess positive benefits, e.g. job creation for "local" employees, claims of tourism and other benefits to the local economy, contributions over the years to emergency responders and other relevant data.	See Response to Comment ID 38 .
272	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Socioeconomic study should include transmission lines. It should consider the loss of resale property value to the remaining property owners due to the intrusion of the project and transmission network, with its deleterious scenic impacts, dam safety concerns, and other related issues.	This request is not related to the relicensing process. The transmission lines in the area are not part of the Project.
273	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Preference in future hiring opportunities should be given to residents of host communities and Schoharie County.	Comment noted.
274	Town of Blenheim	Shaffer, Gail (Citizen)	2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should provide resources for broadband Internet service to Schohaire Valley.	See Response to Comment ID 122 .
299	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-08-07:Town of Middleburgh SD1 Comment Letter	Since our Town lies downstream of BG and so do four other towns in the county, we request that BG provide allotment of power to either offset electric rates for these towns or that can be sold to provide economic stimulus to encourage business growth in the county.	An allotment of power to offset electric rates charged by a utility to consumers is not related to the relicensing.
317	Town of Gilboa	Van Glad, Anthony (Town of Gilboa)	2014-08-06:On 9/3/2014 Town of Gilboa submits letter re the relicensing process for their license	I'm not sure how many acres of land the NYPA has encumbered in my town. I bet it is in the thousands (including power lines). Some sort of tax formula would help the town budget.	See Response to Comment ID 38 .
319	CITIZEN	Mattice, Ruth (North Blenheim, NY.)	2014-08-08:Socioeconomic study request from Ruth Mattice, North Blenheim, NY.	The NYPA needs to do a socioeconomic study as part of their relicensing agreement.	See Response to Comment ID 38 .
320	CITIZEN	Mattice, Ruth (North Blenheim, NY.)	2014-08-08:Socioeconomic study request from Ruth Mattice, North Blenheim, NY.	The NYPA should compensate the Town of Blenheim, Gilboa, and the Gilboa-Conesville Central School District for their loss of tax base because of the project.	See Response to Comment ID 38 .
TERRESTRIAL WILDLIFE AND BOTANICAL RESOURCES					
7	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The primary impacts that the Service believe must be evaluated included.....impacts from water fluctuations in both the Upper and Lower Reservoirs (Issue 4.2.3, Bullets 1 and 2)	See Section 3.8 of the Proposed Study Plan document. Sufficient information exists to assess these issues and no additional studies have been proposed.

ID	Acronym	Filed By	Document	Comment	Official Response
10	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The primary impacts that the Service believe must be evaluated included.....impacts to bald eagles (<i>Haliaeetus leucocephalus</i>) (Issue 4.2.3, Bullet 3)	Comment noted. The Power Authority will continue to consult with the USFWS and the NYDEC regarding listed species and impacts to these species will be evaluated in the license application.
11	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The primary impacts that the Service believe must be evaluated included.....and impacts to federally-listed or proposed threatened and endangered species.	See response to Comment ID 10 .
28	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	USFWS requests Northern Long-Eared Bat SurveyNorthern Long-Eared bats (NLEB) are known to occur in Schoharie County and there is potential for the species to occur with the Project action area. To assist with an analysis of potential impacts of the Project, the Service recommends that the applicant conduct bat surveys. This type of information can greatly assist the Service and the FERC with a full analysis of the effects of the continues operation of the Project.	See Section 3.2 of the Proposed Study Plan document.
29	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	In October 2013, the Service proposed listing the NLEB as an endangered species. Pursuant to Section 7(a)(4) of the Endangered Species Act (ESA) of 1973 (ESA) (87 Stat. 884, as amended: 16 U.S.C. 1531 et seq.), Federal action agencies are required to confer with the Service if their proposed action is likely to jeopardize the continued existence of the NLEB. Action agencies may voluntarily confer with the Service if the proposed action may affect a proposed species. Species proposed for listing are not afforded protection under the ESA; however, as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and "take" applies regardless of an action's stage of completion. If the Federal Energy Regulatory Commission (FERC) retains any discretionary involvement or control over on-the-ground actions that may affect the species after listing, Section 7 consultation procedures apply. Additional information regarding NLEB and conference procedures can be found at (http://www.fws.gov/midwest/endangered/mammals/nlba/index.html).	See Response to Comment ID 28 .
280	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	6. Consider effects of the BG facility on native fauna and flora as compared over the long-term (40 plus years) as compared to the pre-existing health and propagation conditions prior to construction of the BG facility.	See Section 3.6 of the Proposed Study Plan Document.
281	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	7. Consider propagation and effect(s) of invasive plant species since the construction of the BG facility.	See Section 3.10 of the Proposed Study Plan document.
WATER RESOURCES-WATER QUALITY					
9	FWS	Stilwell, David (US Fish and Wildlife Service)	2014-07-24:US Fish & Wildlife Review of PAD, Scoping Document and Identification of Issues and Associated Study Request	The primary impacts that the Service believe must be evaluated included.....water quality impacts (Issue 4.2.2, Bullet 1)	The Authority conducted a water quality study in 2012 to quantitatively characterize the effects of Project operation on water resources at the Project. The study examined water quality within both the Upper and Lower Reservoirs, tributaries, and in Schoharie Creek upstream and downstream of the Project. The overall conclusion of this study is that continued Project operation is not expected to adversely affect water resources.
234	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	A study must be performed to reevaluate the quantity and quality of water that must be discharged by the Blenheim-Gilboa Project. This study include an estimate of the amount of water lost annually at the Project due to evaporation and expressing the quantity in terms of cfs on a daily basis and a percent figure the extent that the Project augments streamflow in Schoharie Creek.	See Section 3.4 in the Proposed Study Plan document.

ID	Acronym	Filed By	Document	Comment	Official Response
WATER RESOURCES-WATER QUANTITY					
98	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	A specific request for any existing hydrology studies performed by NYPA or in the care of NYPA was specifically denied by NYPA (see attached BLTCRC Request 6-1-12 and NYPA Response dated 10-18-12). Ultimately, no hydrology studies were provided by NYPA to the BLTCRC.	See Section 3.5 of the Proposed Study Plan document.
99	Town of Fulton	Mix, Richard (Town of Fulton)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Request that NYPA conduct a full and comprehensive hydrology study.	This concern/study request is addressed under FERC's Part 12 Dam Safety regulations as described in Section 3.3 of the Proposed Study Plan document.
101	Town of Blenheim	Mattice-Strauch, Anne (Town of Blenheim)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Request that NYPA conduct a full and comprehensive hydrology study.	See response to comment ID 99 .
102	DCC	Bartholomew, Alex (Dam Concern Citizens)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	Precipitation and flow have increased substantially in 50 years since project was constructed compared to 70 years prior to development. Request that NYPA conduct a full and comprehensive hydrology study including adequacy of project release works.	See response to comment ID 99 .
103	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	Effect of climate change on flow patterns should be studied and assessed. Precipitation and flow have increased substantially in 50 years since project was constructed compared to 70 years prior to development. Impact of development in the area on runoff.	See response to comment ID 99 .
104	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts, 2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	Effect of climate change on flow patterns should be studied and assessed. Precipitation and flow have increased substantially in 50 years since project was constructed compared to 70 years prior to development. Impact of development in the area on runoff.	See response to comment ID 99 .
117	Town of Blenheim	Shaffer, Gail (Citizen)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript, 2014-08-08:Study Request of Town of Blenheim (Socioeconomic Impacts)	NYPA should provide prior hydrologic studies.	See response to Comment ID 98 .
119	CITIZEN	Mann, Bob (Citizen)	2014-07-31:July 7, 2014 FERC Scoping Meeting Transcripts	NYPA should provide prior hydrologic studies.	See response to Comment ID 98 .
164	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-07-31:July 9, 2014 FERC Scoping Meeting Transcript	NYPA could help with funding for 5 county hydrologic study.	This is a specific funding request not connected to the relicensing process.
174	Town of Fulton	Town Board and Planning Board, (Town of Fulton)	2014-07-17:Comments and Suggestions by the Town of Fulton for BG Studies (filed with FERC 8/7/2014)	Can the conservation release of 7cfs be increased in concert with NY DEP low flow release?	The BG Project's outlet works have the capability to discharge flows for the full range of flows.
182	DEC	Little, William (NY State Department of Environmental Conservation)	2014-08-07:Comment of NYSDEC on PAD and SD1	Staff observes that the PAD does not provide or explain whether a formula was employed to calculate discharges or releases in real time. NYPA should explain the sequence or steps taken to calculate how the discharge or release is made, including evaporation and seepage, to include the formula employed by NYPA.	Releases from the Project are stipulated by the 1975 Settlement Agreement which is an Operating Plan for Water Management of the Project. The Settlement Agreement was approved by FERC on July 30, 1975. The objectives of the Operating Plan are to (1) prevent floods downstream of the Lower Dam of being more severe that they would be without the project; (2) maintain low flows as nearly as practicable to what they would be without the Project; and (3) keep fluctuations in downstream flow from being more severe than they would be without the Project. The Operating Plan explains how discharges are calculated including during low flow periods.
183	DEC	Little, William (NY State Department of Environmental Conservation)	2014-08-07:Comment of NYSDEC on PAD and SD1	The Department would appreciate an opportunity to meet with NYPA and discuss the method for calculating evaporation and seepage and project discharges and providing it for the Department's review.	The Power Authority would be happy to meet with the NYSDEC to discuss these calculations.

ID	Acronym	Filed By	Document	Comment	Official Response
211	DCC	Bartholomew, Howard (Dam Concerned Citizens)	2014-08-06:Letter to FERC on Dam Safety and Flood Mitigation from Dam Concerned Citizen's	That the New York Power Authority, here after referred to as NYPA, owner and operator of the Blenheim/Gilboa Pumped Storage Project, here after referred to as B/G, be required to pass on, in totality any water discharged from the Schoharie Reservoir/Gilboa Dam, owned and operated by the New York City Department of Environmental Protection, here after referred to as NYCDEP, in times of non-flooding in the Schoharie Valley, downstream of B/G.	Releases from the Lower Reservoir to Schoharie Creek equal inflows from Schoharie Creek upstream of the project. Between the low level outlet and Tainter gates, the Project has the ability to release water at the Lower Dam into Schoharie Creek for the whole range of inflows to the Project. Inflow to the Project includes discharges from the New York City Department of Environmental Protection's (NYCDEP's) Gilboa Dam located 5 miles upstream of the Lower Reservoir and runoff from the small intervening watershed of about 40 square miles between Gilboa Dam and the Project.
276	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	1. Confirm current climatology and the anticipated change in same with relation to Schoharie Creek flow levels.	See response to comment ID 99 .
277	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	2 Confirm changes in impervious upstream surface run-off levels and effects thereof due to development of industrial, commercial, recreation and residential activities since project inception to the present.	See response to comment ID 99 .
278	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	3. Consider effects of changes of precipitation levels in conjunction with increase impervious surface run-off on the BG facility itself and the down stream communities located in the Schoharie Creek Basin.	See response to comment ID 99 .
279	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	4. Consider effects of anticipated climate changes and changes in impervious area, on runoff in the Mohawk River Basin.	See response to comment ID 99 .
284	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	9. Provide documentation of changes in flow and velocity patterns to the Schoharie Creek in times of high water / precipitation / thaw cycles and how those changes impact natural and human elements of the downstream environment with an emphasis placed upon the "human element".	Under Section 2.5 of the Proposed Study Plan, the Power Authority has proposed to conduct a Flooding Study.
287	Town of Blenheim	Airey, Don (Blenheim Long Term Community Recovery Committee)	2014-08-05:Comments from Town of Blenheim: Study Request for Application (Chairman Don Airey)	12. A detailed hydrological study into the overall EIS in order to enhance the understanding of the changing conditions of not only the Schoharie Creek but also the tributaries that feed the Schoharie Creek as impacted by the BG facility location, siting and operation, especially during times of heavy precipitation / run-off	See Response to Comment ID 284 .
295	SCBS	Van Glad, Anthony (Town of Gilboa)	2014-08-08:Comments of Schoharie County Board of Supervisors on SD1	Compensatory releases from the Blenheim-Gilboa Project, to make up for evaporative loss, should have been a component of the original license for this project. Additional conservation releases" should be a requirement for the applicant's license renewal.	See Section 3.4 of the Proposed Study Plan document.
296	Town of Middleburgh	Buzon, James (Town of Middleburgh)	2014-08-07:Town of Middleburgh SD1 Comment Letter	We request that a complete hydrological study be performed by an independent organization. Our request for this study comes from the fact that the average yearly precipitation has increased since the BG project was first completed and also that development in BG's drainage basin has resulted in greater run-off.	See response to comment ID 99 .
302	Town of Middleburgh	Buzon, James (Town of Middleburgh)		The Town Board requests that FERC requires BG to provide an environmental study to ensure that adequate conservation and agricultural releases of water are regularly performed and that provisions are incorporated for recreational releases as well.	Releases of the Lower Reservoir are dictated by the upstream Gilboa Dam owned by the New York DEP and inflows from upstream tributaries. The Lower Reservoir has no significant storage capacity, and thus there are no changes in releases, which could be used to provide releases for recreational species events such as boating or fishing.
303	Town of Middleburgh	Buzon, James (Town of Middleburgh)		It is important that an adequate supply of water be available and that the BG facility be required to make timed releases if necessary.	The Project does not control the quantity of water in Schoharie Creek; the Project operates so that outflow to Schoharie Creek equals inflow to the Project. More information is provided in Section 3.4 of the Proposed Study Plan document.