HERKIMER HYDROELECTRIC PROJECT
Project No. 15___-00_
Project No. 9709-071

Stone Ridge Hydro, LLC
16 Harrogate Road
New Hartford, NY

Project Photos

Entrance to Facility parallel to Route 28-Middleville Road

https://www.currenthydro.com/herkimer

Looking North

Looking South

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS

CFS	Cubic feet per second
CWA	Clean Water Act
DO	Dissolved oxygen, generally expressed in units of parts per million (ppm)
DOE	United States Department of Energy
DOI	United States Department of Interior
EPA	United States Environmental Protection Agency
ESA	Federal Endangered Species Act
FERC	Federal Energy Regulatory Commission
GIS	Geographic Information Systems
kW	Kilowatt
kWh	Kilowatt-hour
MWh	Megawatt-hour
NWS	National Wetlands Survey
PAD	Pre-Application Document
Project Area	Zone of potential, reasonably direct project impacts. The Project Area is located within the FERC Project Boundary.
Project Boundary	The boundary line defined in the Project license issued by FERC that surrounds those areas needed for Project purposes.
Tailrace	Channel through which water is discharged from the turbines
TLP	Traditional Licensing Process
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service (DOI)

HERKIMER HYDROELECTRIC PROJECT
Project No. 15___-00_
Project No. 9709-071

PRE-APPLICATION DOCUMENT

INTRODUCTION

Stone Ridge Hydro, LLC (Stone Ridge Hydro) will apply for a license from the Federal Energy Regulatory Commission (FERC), under Project (P-15__-00_), for the Herkimer Hydroelectric Project (P-9709-071), a small (major) hydroelectric power project that is proposed to have an installed capacity of 1.680 kW megawatts or less, under the Federal Power Act.

The exact name and business address of the applicant(s) is:

Applicant's Name: Pete Blanchfield
Address: 16 Harrogate Road
New Hartford, NY 13413

The exact name and business address of each person authorized to act as agent for the applicant(s) in this initial consultation document is:

Applicant's Name: Pete Blanchfield
Address: 16 Harrogate Road
New Hartford, NY 13413

Stone Ridge Hydro, LLC is a corporation, incorporated under the laws of New York State.

PRIOR FERC LICENSE ORDERS (*See* Appendix A)

The attached orders contain the terms and conditions imposed upon the licensed Project's operation, construction, etc. There are no reliable generation or outflow records for the project, which has not operated since 2006. No amount is carried in the PAD for net investment. The applicant does not own the Project's lands and works, which were recently foreclosed upon. The Project's compliance history is summarized in the FERC's April 3, 2024 letter rejecting for filing a NOI and PAD filed in March 2023 by "ECOsponsible". The April 3, 2024 letter is attached to the orders included in Appendix A. Absent was a description of proposed physical and operational changes to the project in the future. No changes are proposed to the Project's works, ***e.g.***, water retention structures. A total rehabilitation or replacement of the installed turbine/generator units will be assessed under the next licensing process.

Letter order filed 2/24/22 granting *ECOsponsible, LLC* a 6/27/2021 request for extension of time until June 25, 2022 to determine whether to repair, decommission, or sell the Herkimer Hydroelectric Project No. 9709-070.

Letter order filed 10/11/19 to *ECOsponsible, LLC* filed accepting the response to FERC's comments and the plan and schedule for the public safety plan for the Herkimer Project under P-9709-000.

Order filed 6/20/19 denying rehearing re *ECOsponsible, LLC* under P-9709-069, 167 FERC ¶ 61,245.

Order filed 4/24/19 granting rehearing for Further Consideration re *ECOsponsible, LLC* under P-9709-069, 166 FERC ¶ 62,081 (2019).

Order filed 2/21/19 denying extension of license term re *ECOsponsible, LLC* under P-9709-067, 166 FERC ¶ 62,081.

Order filed 8/30/18 granting rehearing for further consideration re *ECOsponsible LLC* under P-9709-068.

Order filed 7/31/2018 denying extension of license term re *ECOsponsible, LLC* under P-9709-067, 164 FERC ¶ 62,053.

Letter order filed 9/17/15 granting *ECOsponsible, LLC's* 8/26/15 request for an extension of time until 10/26/15 to respond to Commission Staff's 7/28/15, additional information request for the Herkimer Project under P-9709-065.

Order filed 3/12/15 approving transfer of license re Trafalgar Power, Inc. (transferor) and *ECOsponsible, LLC (transferee)* under P-9709-065, 150 FERC ¶ 62,144.

REAL ROPERTY AND PROJECT OWNERSHIP

The project's real property and licensed project works have been foreclosed upon. As of the filing of this PAD, a title has not been filed. Exhibit G shows an ownership/lease boundary line and includes a description of the deed and boundaries of the property. This Project does not encompass any federal lands; therefore, these conditions do not apply.

PROPOSED PROCESS PLAN AND SCHEDULE

On April 3, 2024, the Commission issued a notice "Soliciting Notices Of Intent To File A New License Application And Pre-Application Documents." As stated therein, this notice sets a deadline of 90 days from the date of this notice for interested applicants, other than the existing licensee, to file NOIs, PADs, and requests to use the traditional licensing process or alternative procedures. Applications for a new license from potential (non-licensee) applicants must be filed with the Commission at least 24 months prior to the expiration of the current license. Because the current license expires on March 31, 2027, applications for a license for this project must be filed by ***March 31, 2025***.

The following Process Plan and Schedule outlines the specific timeframes and actions by the FERC, Stone Ridge Hydro, LLC (Prospective Applicant), and other participants in the Integrated Licensing Process through filing of the License Application (Table 3-1). The Process Plan and Schedule Are based upon the filing of the NOI and PAD, on or before April 30, 2024. All subsequent dates given are based upon an assumed filing date of April 30, 2024. The Process Plan and Schedule is subject to change throughout the relicensing proceeding. The Process Plan and Schedule using ILP cannot meet the March 31, 2025 deadline for submission of an application for new license. Moreover, it is unlikely that an acceptable final license application using ILP can be filed prior to the expiration of the current license, which is March 31, 2027.

PRE-FILING CONSULTATION Stone Ridge Hydro held a virtual meeting with representatives of New York Department of Conservation (NYDEC) and U.S. Fish and Wildlife Service (FWS) on April 12, 2024. Stone Ridge Hydro discussed the possible use of the traditional Licensing process (TLP) and the possible need for waivers to the consultation process, including deferment of the conduct of some studies to post filing because either all of the majority of the 2024 study season for field work would be consumed by the TLP request process and the conduct of the initial stage of consultation leading to study request, etc.

RELICENSING PROCESS PLAN AND SCHEDULE

Activity[1]	**Responsible Party**	**Timeframe**	**Regulation**	**Dates**[23]
File Notification of Intent (NOI) and Pre-Application Document (PAD)	Stone Ridge Hydro	At least 5 but no more than 5.5 years prior to license expiration	Waived	
Initial Tribal Consultation Meeting	FERC	No later than 30 days of filing NOI/PAD	18 CFR § 5.7	06/30/2024
Issue Notice of NOI/PAD and Scoping Document 1 (SD1)	FERC	Within 60 days of filing noi/pad	18 CFR § 5.8(a)	06/30/2024
Conduct Scoping Meetings and Site Visit	FERC	Within 30 days of NOI/PAD notice and issuance of SD1	18 CFR § 5.8(b)(3)	tbd
File Comments on PAD, SD1, and Study Requests	Stakeholders	Within 60 days of NOI/PAD notice and issuance of SD1	18 CFR § 5.9(a)	08/29/2024
File Proposed Study Plan (PSP)	Stone Ridge Hydro	Within 45 days of deadline for filing comments on PAD	18 CFR § 5.11(a)	10/132024
Issuance of Scoping Document 2 (SD2) (if necessary)	FERC	Within 45 days of deadline for filing comments on SD1	18 CFR § 5.10	10/13/2024
Study Plan Meeting(s)	Stakeholders	First meeting to be held within 30 days of filing psp	18 CFR § 5.11(e)	11/12/2024

Activity[1]	Responsible Party	Timeframe	Regulation	Dates[2][3]
File Comments on PSP	Stakeholders	Within 90 days of filing psp	18 CFR § 5.12	1/11/2025
File Revised Study Plan (RSP)	Stone Ridge Hydro	Within 30 days of deadline for comments on psp	18 CFR § 5.13(a)	02/10/2025
File Comments on RSP	Stakeholders	Within 15 days following filing of RSP	18 CFR § 5.13(b)	02/25/2025
Issuance of Study Plan Determination (SPD)	FERC	Within 30 days following filing of RSP	18 CFR § 5.13(c)	03/26/2025
Initiate Formal Study Dispute Resolution Process (if necessary)	Agencies and Tribes with mandatory conditioning authority	Within 20 days of Study Plan Determination	18 CFR § 5.14(a)	
Dispute Resolution Panel Convenes	Dispute Resolution Panel	Within 20 days of notice of study dispute	18 CFR § 5.14(d)	
File Comments on Study Dispute	Stone Ridge Hydro	Within 25 days of notice of study dispute	18 CFR § 5.14(i)	
Dispute Resolution Panel Issues Recommendations	Dispute Resolution Panel	Within 50 days of notice of study dispute	18 CFR § 5.14(k)	
FERC Issues Study Dispute Determination	FERC	Within 70 days of notice of study dispute	18 CFR § 5.14(l)	
Conduct First Season of Studies	Stone Ridge Hydro	Pursuant to the approved Study Plan and Schedule	18 CFR § 5.15(a)	TBD 2025
File Initial Study Report	Stone Ridge Hydro	Pursuant to the approved Study Plan OR no later than 1 year after SPD	18 CFR § 5.15(c)(1)	03/24/2026
Initial Study Report Meeting	Stakeholders	Within 15 days from Initial Study Report	18 CFR § 5.15(c)(2)	04/08/2026
File Initial Study Report Meeting Summary	Stone Ridge Hydro	Within 15 days following the Initial Study Report meeting	18 CFR § 5.15(c)(3)	04/23/2026
File Meeting Summary Disagreements	Stakeholders	Within 30 days of filing study results meeting summary	18 CFR § 5.15(c)(4)	
File Responses to Meeting Summary Disagreements	Stakeholders	Within 30 days of filing meeting summary disagreements	18 CFR § 5.15(c)(5)	
Resolution on Disagreements	FERC	Within 30 days of filing responses to disagreements	18 CFR § 5.15(c)(6)	
Conduct Second Season of Studies (if necessary)	Stone Ridge Hydro		18 CFR § 5.15(a)	TBD 2026

Activity[1]	Responsible Party	Timeframe	Regulation	Dates[2][3]
File Updated Study Report (if necessary)	Stone Ridge Hydro	Pursuant to the approved Study Plan OR no later than two years after SPD	18 CFR § 5.15(f)	03/24/2027
Updated Study Report Meeting (if necessary)	Stakeholders	Within 15 days of Updated Study Report	18 CFR § 5.15(f)	04/08/2027
File Updated Study Report Meeting Summary (if necessary)	Stone Ridge Hydro	Within 15 days of Study Results Meeting	18 CFR § 5.15(f)	04/23/2027
File Meeting Summary Disagreements	Stakeholders	Within 30 days of study results meeting summary	18 CFR § 5.15(f)	
File Responses to Meeting Summary Disagreements	Stakeholders	Within 30 days of filing of meeting summary disagreements	18 CFR § 5.15(f)	
Resolution on Disagreements	FERC	Within 30 days of filing responses to disagreements	18 CFR § 5.15(f)	
File Preliminary Licensing Proposal (PLP) or Draft License Application (DLA)	Stone Ridge Hydro	No later than 150 days prior to deadline for filing Final License Application	18 CFR § 5.16(a)	TBD
File Comments on Applicant's PLP or DLA	Stakeholders	Within 90 days of filing PLP or DLA	18 CFR § 5.16(e)	TBD
File Final License Application	Stone Ridge Hydro	No later than 24 months before existing license expires	18 CFR § 5.17	Waived (?)

[1] Activities in shaded areas are not necessary if there are no study disputes.

[2] If the due date falls on a weekend or holiday, the deadline is the follo3.1wing business day.

[3] The schedule is subject to change throughout the relicensing proceeding. For updated schedules, see

www.westcanadacreekproject.com

Scoping Meeting and Site Visit

As set forth in the ILP regulations, the FERC will issue Scoping Document 1 (SD1) within 60 days of the filing date of the NOI and PAD. In addition, pursuant to 18 CFR § 5.8(b)(3)(viii), FERC will provide public notice and schedule a public scoping meeting and a Project site visit to be held within 30 days of issuing SD1. The FERC will notice the dates, times, and location of the Scoping Meetings and publish that information in local papers after the filing of the NOI and pad.

ILP Participation

Stone Ridge Hydro has provided this PAD to representatives of federal and state resource agencies, local governments, Native American tribes, NGOs, members of the public, and other parties potentially interested in the relicensing proceedings (Appendix B). Any party that would like to be added to or removed from the distribution list should send a written request to:

Applicant's Name: Pete Blanchfield
Address: Stone Ridge Hydro, LLC
16 Harrogate Road
New Hartford, NY 13413

Email: peter.blanchfield@gmail.com

COMMUNICATION AND DOCUMENT DISTRIBUTION

The Licensee's goal is to maintain open communication during the licensing process and to provide public access to relevant Project licensing information. Stone Ridge Hydro anticipates distribution of relevant documents, submittal of comments, and correspondence will be largely conducted electronically, either by electronic filing of documents with the FERC or via e-mail distribution. The Licensee will maintain documentation of all electronic correspondence as part of formal agency consultation proceedings. Relicensing documents can be downloaded from the Project's relicensing website at: http://www.stoneridgehydro.com

All requests for hard copies of relicensing documents should be sent to Mr. Blanchfield using the contact information provided in Section 3.2, and should clearly indicate the document name, publication date, and the FERC Project Nos 97809-071 and 15__-00_. A reproduction charge and postage costs may be assessed for hard copies requested by the public. Additionally, relicensing documents are available to the public through the FERC eLibrary, a records information system on the internet that contains documents submitted to and issued by the FERC. The ELibrary can be accessed through the FERC's homepage, at http://www.ferc.gov, or directly at https://elibrary.ferc.gov/idmws/search/fercgensearch.asp. Documents filed with the FERC as part of the Project licensing process are available for viewing and printing via eLibrary by searching under the Project's docket P-9709 and P-15___-00_(upon the FERC's designation). Interested parties can subscribe to the Docket P- 2701 for the West Canada Creek Project under eSubscription on the Commission's website to receive notices of issuance and filings by e-mail.

Restricted Documents

Certain Project-related documents are restricted from public viewing in accordance with the FERC regulations. Critical Energy Infrastructure Information (CEII) (defined under 18 CFR §388.113) are materials related to the design and safety of dams and appurtenant facilities and that, as necessary to protect national security and public safety, are restricted. Appendix F (Volume II) of this PAD includes information considered CEII and is being filed separately. Additional restricted materials include Privileged Information associated with protecting sensitive information, such as the location of rare, threatened, or endangered species, and sensitive archaeological or other culturally significant properties. Anyone seeking this information from the FERC must file a Freedom of Information Act (FOIA) request. Instructions for CEII and FOIA are available on the FERC's website at https://www.ferc.gov/legal/ceii-foia.asp.

ERC Communication
FERC, in its April 3, 2024 Notice for P-9709-071, has designated Ms. Jody Callihan, (202) 502-8278 or jody.callihan@ferc.gov, for questions.

PROJECT LOCATION, FACILITIES, AND OPERATIONS

Authorized Agent
The exact name, business address, telephone number, and email address of each person authorized to act as an agent for Stone Ridge Hydro is listed below.

Applicant's Name: Pete Blanchfield
Address: Stone Ridge Hydro, LLC
16 Harrogate Road
New Hartford, NY 13413

Email: peter.blanchfield@gmail.com

Project Location
The Project is an existing hydropower development, which is located on the West Canada Creek in the Town of Herkimer in Herkimer County, New York (Figure 1). The Project is regulated by the FERC under project number P-9709. The dam for the Project has a national dam inventory number of NY9709 and is classified by the FERC as a low hazard dam. The project was developed at the site of an existing dam. The project was constructed by McGrath Industries, Inc. of Clifton New York, and became operational in 1988. The site was taken offline in 2006, as the previous owner was amid a voluntary bankruptcy action which started in 2001 and ended in 2015. Upstream, the project includes a reservoir with a surface area of 1.9 acres and a storage capacity of 163 acre-feet. The powerhouse is located on the west bank of the river. The Herkimer dam is a rock filled timber crib structure with a concrete apron. The structure is an overflow spillway comprising two sections with varying crest elevations. One section of the spillway has 2 feet high flashboards, and 0.5 feet splashboards are on the balance. The overall dam length is approximately 157.5 feet, with a maximum height of 20 feet. The spillway consists of reinforced concrete capping, stone fill and downstream face of concrete protection. At the end of the spillway adjacent to the trashrack structure is a 6' x 21' hinged crest gate, and a 4' x 6' slide gate. The hinged gate manages the water levels, and the slide gate flushes debris and ice off the trash racks. The Herkimer Dam is classified as low hazard under the FERC guidelines and, as such, no Part 12D inspection is required. No specific monitoring activity is required other than the visual monitoring of the undermining of the upstream right bank training wall which is part of the scheduled visual inspection of the station.

Generating Unit Information
The project consists of four ESAC turbine/generator units in a siphon arrangement and a fifth single submersible Flygt turbine/generator in a vertical flume arrangement. Each unit is operated individually with separate air pumps to void each siphon of air. The plant can be shut down by introducing air into the siphon and halting the water supply. The four ESAC siphon units each rated at 400 kW each and the Flygt unit is rated at 80 kW. The small 80 kW Flygt turbine is located within the auxiliary spillway section. This turbine utilizes a plant flow of 160 cfs,and discharges it into the river immediately downstream of the dam.

Note: Issue concerning Installed Capacities

1. The FERC's April 3, 2024 Notice and its early orders amending the issued license stated that that the authorized installed capacity is 1680 kW., Trafalgar Power, Inc., Project No. 9709-007, 48 FERC ¶62,105)(August 10, 1989).
2. In 200 FERC issues an order modifying the authorized capacity to 1710 kW. Trafalgar Power, Inc., Project No. 9709-050, 91 FERC ¶62,175 (June 12, 2000).
3. However, the March 2022 PAD filed by "ECOsponsible states that the four main units' capacity is 500 kw and the minimum flow's is 125; for a total of 2,125 kW.

The FERC initial licensing order (with 2 units and a total capacity 1050 kW) states that the expected annual generation with 1680 kW installed is an estimated 6,125,000 kilowatt-hours (kWh).

Stone Ridge estimates that a minor project (<2000 hp) would have an expected annual generation in the range of 5.5 to 6.5 GWH. A major project could have a range of 7.0 to 9.0 GWH, assuming new and more efficient turbine/generator sets.

Stone Ridge Hydro, LLC (Stone Ridge Hydro) applies to the Federal Energy Regulatory Commission for an exemption under Project (P-15266-000) for the Herkimer Hydroelectric Project (P-9709-070), a small hydroelectric power project that is proposed to have an installed capacity of 1.680kW megawatts or less, from licensing under the Federal Power Act.

The exact name and business address of the applicant(s) is:

Applicant's Name:	Pete Blanchfield
Address:	16 Harrogate Road New Hartford, NY 13413

The exact name and business address of each person authorized to act as agent for the applicant(s) in this initial consultation document is:

Applicant's Name:	Pete Blanchfield
Address:	16 Harrogate Road New Hartford, NY 13413

Stone Ridge Hydro, LLC is a corporation, incorporated under the laws of New York State, EIN 88-1297983

PROPERTY AND PROJECT OWNERSHIP AND CURRENT OPERATION

The project's real property and licensed project works have been continuously owned by ECOsponsible, Inc. since 2015. These rights include all the rights of flowage and use (usufructuary rights) necessary for the continued use of the site for hydro power generation as currently licensed. Since acquiring the Herkimer Project in 2015, ECOsponsible has yet to repower the facility.

As a result, the facility will require significant maintenance to clean up the dam structure; and moreover, will require up to $2.5M in capital expenditures to repower/replace the generator/turbine units, as well as remove excess sediment that has built up over time in the tailwater channel. Stone Ridge Hydro has identified the real property interests in the lands necessary to develop and operate the project, including a deed, option, or lease. In the event of a successful exempt license acceptance, Stone Ridge Hydro plans to acquire the property.

Exhibit G shows an ownership/lease boundary line and includes a description of the deed and boundaries of the property, which serves as documentary evidence of the applicant's interest in the lands, as required by 18 C.F.R. § 4.31(b)(2).

PRIOR ENVIRONMENTAL ASSESSMENTS

A field visit at the Project on December 3, 2021 by NYSDEC Dam Safety staff revealed that the project was unmaintained and abandoned, with portions of the spillway blocked by debris. Furthermore, NYSDEC notes from their inspection that they were aware that there have been incidents of apparent overtopping of the dam's left embankment, initially caused by a storm in Oct 2019, which caused erosion on the embankment, possibly due to an inadequate spillway capacity.

As stated by NYDEC in their 12/27/21 comments related to ECOsponsible's Termination of License by Implied Surrender for the Herkimer project, the two dominant game species in this area of the lower West Canada Creek are smallmouth bass (Micropterus dolomieu) and brown trout (Salmo trutta). NYDEC added that the Project currently does not provide adequate downstream protection. Further, no downstream or upstream passage facilities exist at the Project. Therefore, the Project serves as a barrier to aquatic species present in the West Canada Creek.

LAND AND WATER RIGHTS

Conditions for Federal Reservation Land Section 4(e) of the FPA provides that any license issued by FERC for a project within a federal reservation shall be subject to and contain such conditions as the Secretary of the responsible federal land management agency deems necessary for the adequate protection and use of the reservation. This Project does not encompass any federal lands; therefore, these conditions do not apply.

SECTION 401 WATER QUALITY CERTIFICATION

Section 401 of the Clean Water Act (CWA)1 (USEPA 2020a) requires Stone Ridge Hydro to obtain certification from the appropriate state pollution control agency verifying compliance with the CWA or to obtain a waiver of certification.

The New York State Department of Environmental Conservation (NYSDEC) is the state agency responsible for water quality certifications for the Project. Erie will request water quality certification (WQC) from the NYSDEC in accordance with 18 CFR §5.23(b) within 60 days of FERC's issuance of notice of acceptance of the FLA and REA notice.

PROPOSED PROCESS PLAN AND SCHEDULE

Waiver Request

Letters (or other documentation) notifying agencies and affected Indian Tribes of waiver request (TBD)

Letters (or other documentation) from agencies and affected Indian Tribes supporting the waiver request (TBD)

Fees

Documentation of the applicant's consultation regarding the statement of fees

Stage 1

Initial letters sent to the consulted entities requesting comments (TBD)
Newspaper article or other proof of notification of the joint meeting (TBD)
Copies of letters received from resource agencies and Indian tribes containing study requests (TBD)

Stage 2

Letters documenting that a copy of the draft application, results of all studies, and written request for review and comment were sent to agencies (TBD)
Copies of letters received from resource agencies, Indian tribes, or the public containing comments and recommendations (TBD)

Stage 3

A copy of the transmittal letter certifying that the application has been sent to the consulted agencies (TBD)

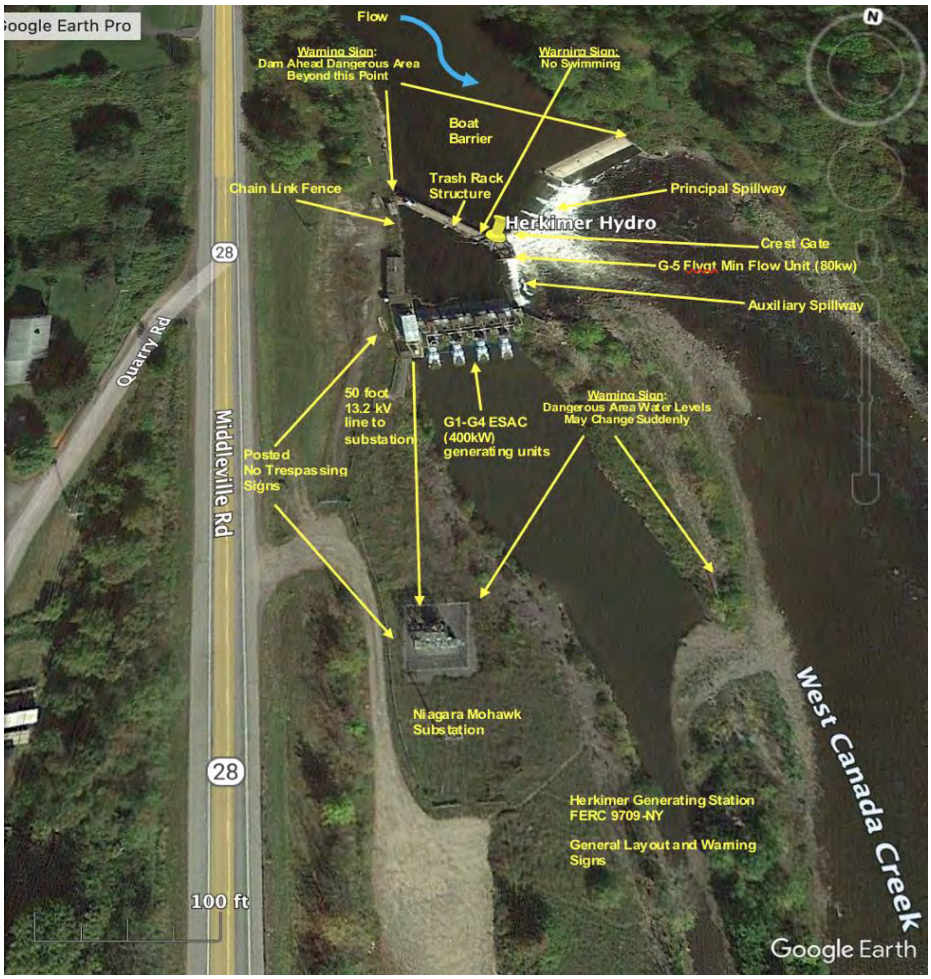
§16.8(b)(3)(ii)(A) requires a potential applicant to convene a joint meeting no earlier than 30 days, and no later than 60 days from, as applicable from the date of the potential applicant's letter transmitting the information required by paragraph §16.8(b)((b)(2) in the case of a potential exemption applicant.

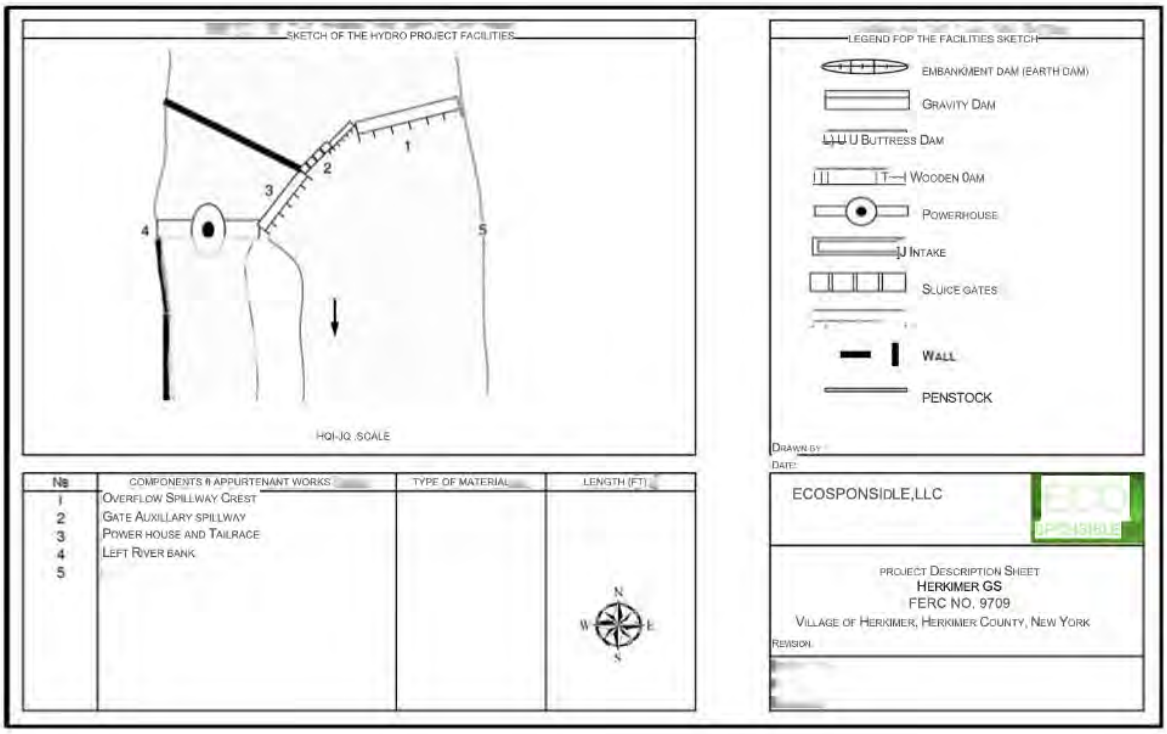
The following individuals are authorized by Stone Ridge Hydro, LLC to act as its agent:

Pete Blanchfield
Stone Ridge Hydro, LLC (EIN 88-1297983)
16 Harrogate Road
New Hartford, NY 13413

PROJECT OPERATIONS AND LAYOUT

The trashrack is a four-opening concrete structure which feeds the powerhouse forebay or intake channel. Each opening is 11.5 feet deep and 20 feet wide and are equipped with steel trashracks with 1 inch clear space in between the trashrack. The site uses a power trash rake to clean the trashrack. On the river side of the forebay is a concrete gravity auxiliary spillway approximately 17 feet high. The forebay itself is approximately 75 feet wide and 69 feet long, with an average depth of 11.5 feet. Due to the equipment configuration, Herkimer does not require a conventional powerhouse superstructure. The generating equipment, including the siphon and working platforms, are supported on a structural concrete foundation anchored to the underlying bedrock. This concrete foundation also acts as the dam for the downstream end of the forebay. The dam has a crest elevation of nearly 2 feet higher than the main spillways. A small building houses the switchgear and controls, and provides a small office space for the operator.The tailrace returning the plant flow to the river is in excess of 249 feet long. Initially nearly 20 feet deep, it rises at a 6:1 slope until it meets the original river grade. The tailrace is separated from the main branch of the river by a tailrace dike to maintain low water level in the tailrace during high flow. The substation and interconnection to the Niagara Mohawk grid is approximately 250 feet from the control building. The 600V/4.6 kV pad mount transformer and the utilities receiving structure are located within a fenced compound. The power is produced at 4,160 volts and transformed to 13,800 volts for interconnection to the grid and its onsite 46 KVA substation.

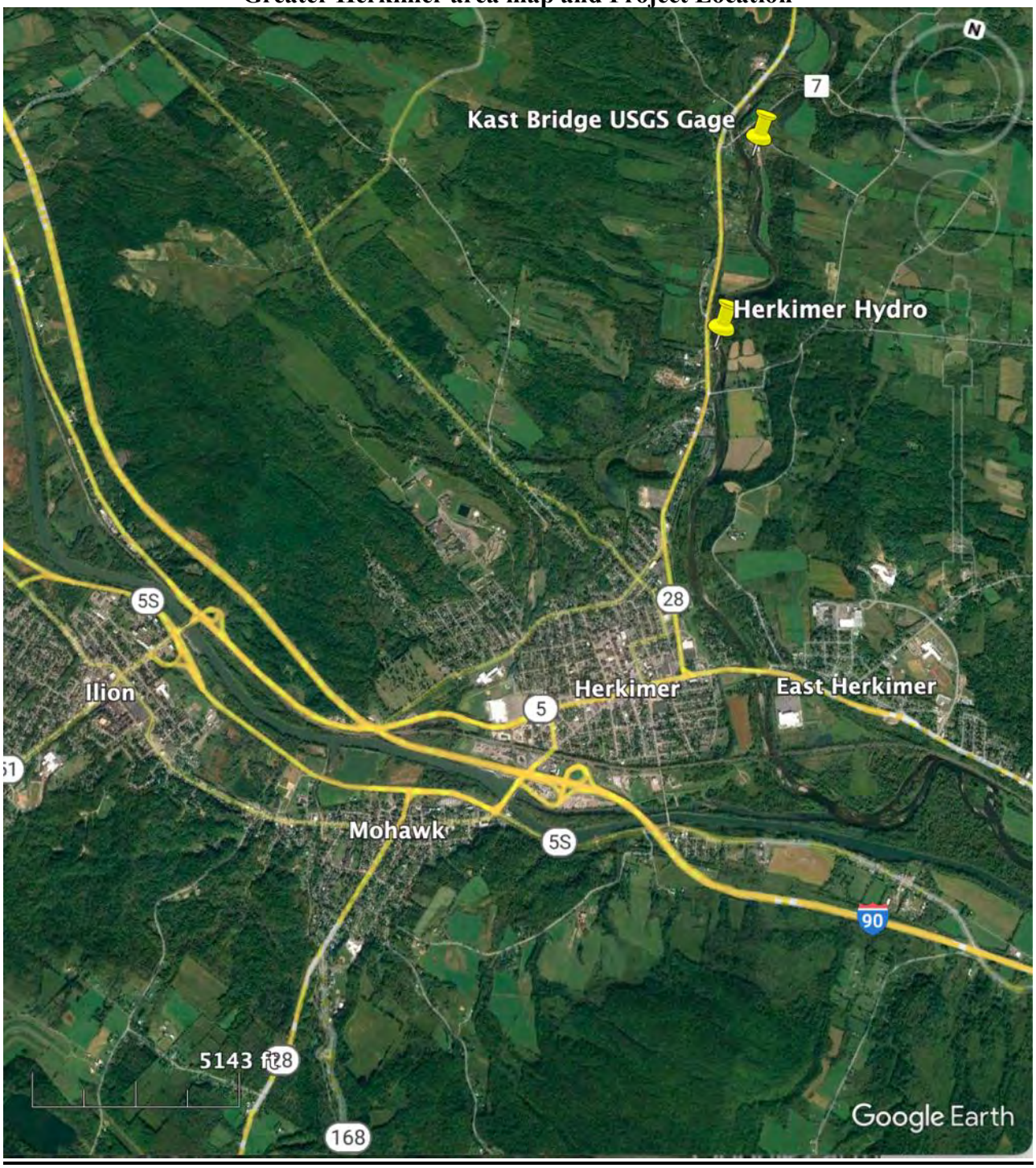



SKETCH OF THE HYDRO PROJECT FACILITIES
1
2
3
4
5
HQI-JQ ,SCALE
LEGEND FOP THE FACILITIES SKETCH:
EMBANKMENT DAM (EARTH DAM)
GRAVITY DAM
U BUTTRESS DAM
WOODEN DAM
POWERHOUSE
INTAKE
SLUICE GATES
WALL
PENSTOCK
DRAWN BY :
DATE:
№ | COMPONENTS ñ APPURTENANT WORKS | TYPE OF MATERIAL | LENGTH (FT)
1 Overflow Spillway Crest
2 Gate Auxillary spillway
3 Power house and Tailrace
4 Left River bank
5
N
W
E
S
ECOSPONSIDLE,LLC
PROJECT DESCRIPTION SHEET
HERKIMER GS
FERC NO. 9709
VILLAGE OF HERKIMER, HERKIMER COUNTY, NEW YORK
REVISION.

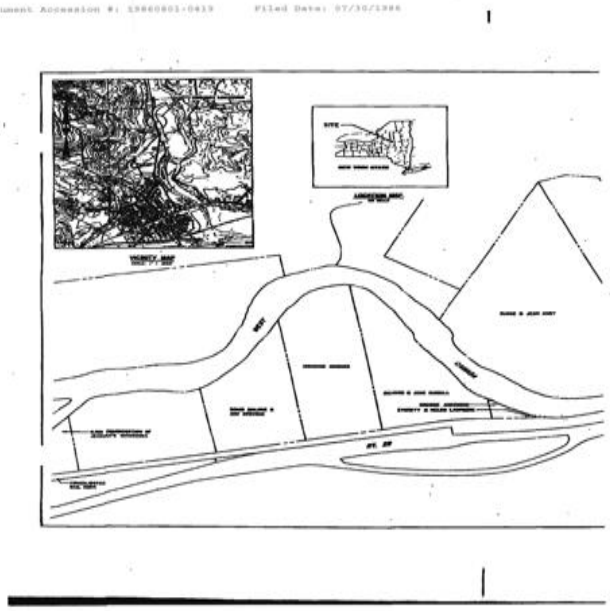
INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(i)

The Herkimer Project is located on the West Canada Creek, in the Village of Herkimer, Herkimer County, New York in the Mohawk Valley Region. The project was developed at the site of an existing dam, constructed by McGrath Industries, Inc. of Clifton, NY. The Project began operation in 1988. The project has not operated since 2006. Please see EXHIBIT F Proposed Project Boundary Map which outlines the existing project facilities, including roads, transmission lines, and any other appurtenant facilities.

Greater Herkimer area map and Project Location



Original Vicinity Map: Document Accession #: 1986081-0419 Filed Date 07/30/1986



Current Vicinity Map (same orientation as original- all lands to be identified with a complete description on FERC Form 587):

INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(ii)

Herkimer is a run-of-river, timber crib dam with a 9-foot high, 95-feet foot long section reaching crest elevation at 420 mean sea level and 12-foot high, 145-foot-long section reaching crest elevation at 419.2 feet msl. The reservoir has a surface area of 19 acres, with storage capacity of 163 acre-feet and normal water-surface elevation of 420.5 feet msl.

The dam structure is a siphon arrangement with a single powerhouse. The facility was designed to produce 4160 volts and transformed to 13,800 volts for interconnection, on a 50 foot long, 13.2-kV line connecting to a Niagara-Mohawk substation, located adjacent to the property.

INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(iii)

The intake facility consists of a reinforced concrete and steel powerhouse with four ESAC turbine/generator units rated 400 kW each and one Flygt unit rated 80 kW, serving as a minimum flow generator at the base of the dam. According to a Commission letter dated 2/18/2014 from Charles K. Cover P.E. to Peter Michaud of Algonquin Power, the four main generating units for the project stopped operating in 2004 and the fifth minimum flow-generating unit became inoperable in 2006. On top of this, severe flooding in June 2006 and April 2011 washed out the flashboards, causing debris to accumulate against the intake and in the forebay, and significant erosion on the left downstream bank.

The existing license requires the Project to operate in run-of-river mode and Stone Ridge Hydro is proposing to continue doing so. Further due diligence and evaluation of the existing turbine/generator units may result in refurbished of one or more units having a larger capacity is akin to the filing of non-capacity amendment to an existing license, and if even treated as "adding a new" turbine (instead of replacing an existing unit), the process would all under §4.38's TLP.

Stone Ridge Hydro will acquire the property interests of the project; and in doing so, gather additional hydraulic information on the proposed replacement turbine for increasing the Project's installed capacity to 1680 kW. This determination is related to the eventual refurbishment and/or replacement of up to two of the four ESAC generating units totaling $1.8M. Given the capital required to repower the facility and restore the dam to its prior state, Prospective Applicant will seek benefits under section Rule 210 of the Public Utility Regulatory Policies Act of 1978 (PURPA) to efficiently leverage all options as an independent energy producer.

Most of the resource issues have been addressed in emails received from USFWS, DEC, Riverkeepers, ECOsponsible and other interested parties in response to the Notice of Termination proceeding associated with the Herkimer Dam Project. All relevant resource issues raised in the future will be addressed by the prospective applicant going forward.

Complete the following NYDEC's and US Fish and Wildlife recommendations within 180 days of acquiring the project and obtaining an exempt license:

1) Remove and dispose of sediments from the tailwater channel
2) Develop an erosion control plan in consultation with the Service and NYSDEC
3) Evaluate and construct measures to limit the continued negative impacts of high flows on the left bank and dam abutment; repair and restore the left bank utilizing Natural Stream Design Techniques
4) Confirm or modify the dam's downstream hazard potential classification, which is currently Class A, Low Hazard. Provide a report by a qualified licensed professional engineer regarding the

dam's hazard class, for the FERC and NYSDEC's review and approval. Confirming that the dam meets New York dam safety criteria for its hazard class, as contained in NYSDEC's publication "Guidelines for Design of Dams" or other appropriate guidance. Provide a report by a qualified licensed professional engineer, for the FERC and NYSDEC's review and approval.

5) Provide a plan and schedule for correcting any deficiencies, and implement the plans for correcting the deficiencies, which may require permits from NYSDEC.
6) Provide an Inspection and Maintenance Plan (I&M Plan) for the FERC and NYSDEC's review and approval, and a certification by the owner that the I&M Plan is being followed.

INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(iv)

GEOLOGY AND SOILS

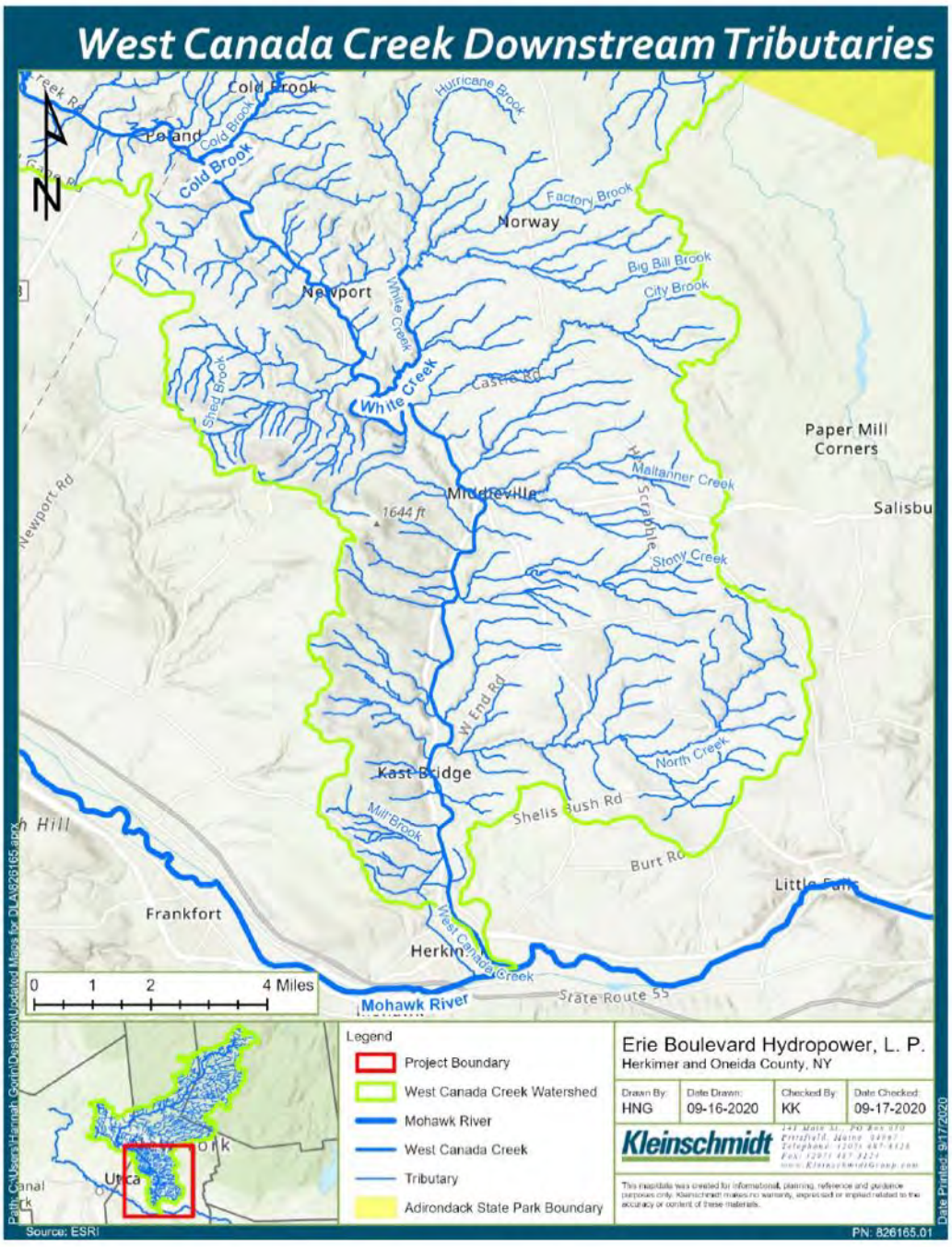
The Adirondack Mountains province is dominated by hard, crystalline, igneous rock (NYSDOT 2013). Valleys in this province are produced by bedrock structures. About 30 miles upstream from Herkimer, the Trenton Falls area is known for the Trenton Falls Gorge. The area contains limestone deposits and fossils. The limestone deposits along the sides of the Trenton Falls Gorge include layers of folded and broken limestone amongst layers of undisturbed limestone. Each layer is, on average, a few inches thick (Miller 1908), (Source: West Canada Creek Project P-2701 Final License Application).

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) conducted soil surveys covering most of the Project area. The largest land unit type within the Project area is cut and fill land, which comprises 14.6 percent of the area of interest (Table 3-1, Figure 3-3). The majority (70 percent) of the cut and fill land is composed of udorthents, which contain channery loam and very gravelly sandy loam, and similar soils. Approximately 6.5 percent of the Project area is composed of rough broken land, and the majority (70 percent) of this category consists of eutrudepts, which consist of channery loam; rough broken land; and similar soils (NRCS 2018).

WATERSHED

The West Canada Creek Basin drains portions of Hamilton, Herkimer and Oneida counties in central New York, and is a sub-basin to the Mohawk River Basin. The Mohawk River is 140-miles-long with a drainage area of roughly 3,460 square miles and the largest tributary to the Hudson River (representing approximately 25 percent of the Hudson RiverBasin) (NYSDEC 2010) (Source: West Canada Creek Project P-2701 Final License Application).

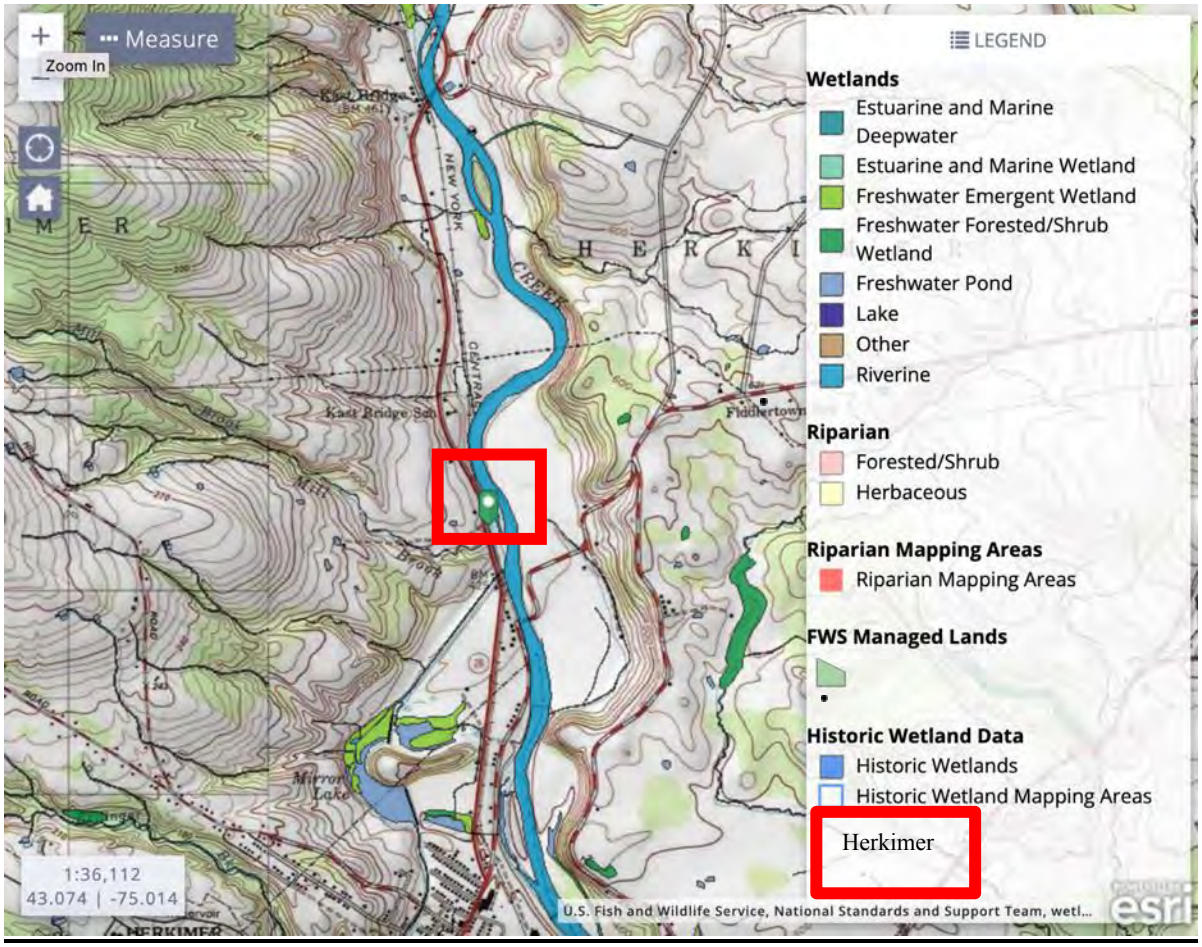
West Canada Creek is the second largest tributary of the Mohawk River and has a total drainage area of 561 square miles. The West Canada Creek originates in the Adirondack Mountains in Hamilton County and extends approximately 75 miles to its confluence with the Mohawk River. From its origins, West Canada Creek flows south or south-westerly downstream to Hinckley Reservoir. Flows from Hinckley Reservoir release directly into the Prospect Reservoir. The Prospect Reservoir extends southwest from the tailrace of Hinckley Dam approximately 2 miles downstream to the Prospect Dam located at RM 33, which has a drainage area of approximately 375 square miles. The West Canada Creek flows downstream to the Nine Mile Creek Feeder Dam located approximately 0.25 mile downstream of the Trenton Falls Dam. From the Nine Mile Creek Feeder Dam, the West Canada Creek flows downstream, past Newport and Herkimer Dams and ultimately to its confluence with the Mohawk River. Cincinnati Creek is the largest tributary in the lower West Canada Creek reach, and other tributaries include Mill Creek, White Creek, and Cold Brook.



WETLANDS

Based on data from the National Wetlands Inventory (NWI), there are two types of wetlands– Riverine and Freshwater Emergent Wetland from Kast Bridge down to the Herkimer Project. Mirror Lake, southwest of the Herkimer Project, has a Freshwater Emergent Wetlands and Historic Wetlands. Located on the far eastern bank of the West Canada Creek and across from the Herkimer Project exists Freshwater Forested /Shrub Wetland.

US Fish and Wildlife ESRI Map
National Wetlands Inventory



VEGETATION

The lower West Canada Creek has abundant vegetation including boulders, woody debris and vegetation which provides a healthy environment for fish and wildlife in the greater watershed.

WILDLIFE AND WILDLIFE HABITAT

MAMMALS

Mammals in northern hardwood and conifer forests habitats can include the black bear, fisher, gray fox, northern flying squirrel, porcupine, smoky shrew, southern flying squirrel, white footed mouse, and the woodland jumping mouse. Mammals in the conifer and hardwood swamps macrohabitats can include the masked shrew, mink, red-backed vole and the short-tailed shrew. Mammals common to these river floodplain habitats floodplains include big brown bats, eastern pipistrelle, little brown myotis, long-tailed weasel, mink, white-tailed deer, northern short-tailed shrew, raccoon, red bat, river otter, silver-haired bat and Virginia possum (The Nature Conservancy 2020).

BIRDS

Associated species in the West Canada Creek watershed include the black and white warbler, blackburnian warbler, black throated blue warbler, black throated green warbler, eastern wood pewee, hermit thrush, northern saw whet owl, ovenbird, pine warbler, ruffed grouse, scarlet tanager, veery and the wood thrush. Associated bird species within the conifer and hardwood swamps macrohabitats include the black-backed woodpecker, Canada warbler, golden crowned kinglet, gray jay, northern waterthrush, palm warbler, red-shouldered
hawk, American three-toed woodpecker, veery, white-throated sparrow, wood duck and the yellow bellied flycatcher. Additionally, bird species such as the alder flycatcher, bald eagle, cerulean warbler, northern waterthrush, warbling vireo, willow flycatcher, wood duck, yellow warbler and the yellow-throated vireo can be found within the large river floodplain macrohabitat (The Nature Conservancy 2020).

HERPTILES AND INSECTS

Herptiles in the northern hardwood and conifer forests habitats can include the northern red-bellied snake, smooth green snake and the spring salamander. Conifer and hardwood swamps and river floodplains in the Project vicinity make suitable habitat for a number of herptile species (NYSDEC 2020f).

INVASIVE SPECIES

Invasive species are organisms (plants and animals) that are not native to the aquatic ecosystems and can threaten aquatic ecology, economy, and human health. The Partnerships for Regional Invasive Species Management (PRISMs) are regional partnerships between federal and state agencies, resource managers, NGOs, industry and interested citizens, which develop and implement regional invasive species management programs. PRISMS within the Project region include the Saint Lawrence and Eastern Lake Ontario (SLELO) PRISM (includes Oneida County), and the Capital Mohawk PRISM (includes Herkimer County) (NYSDEC 2020g).

The New York Heritage Program maintain databases and a mapping system for information regarding the type and location of species within the region. A review of this database and mapping system indicated that no terrestrial or aquatic invasive species have previously been identified within the Project area (NYNHP 2020). Upstream of the Project area, common reed (Phragmites australis), Japanese knotweed (Polygonum cuspidatum), purple loosestrife (Lythrum salicaria), garlic mustard (Alliaria petiolata), and giant hogweed (Heracleum mantegazzianum), were identified, primarily along Route 365 along north of Hinckley Reservoir (NYNHP 2020, NYPA 2020).

Under Section 18 of the FPA, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) have the authority to prescribe fishways at federally regulated hydropower projects. Currently there are no fish passage facilities or prescriptions at the Project and no fish passage facilities for eel or any other fish passage at the upstream Prospect Dam, Trenton Falls, Nine Mile Feeder Creek and Newport, or Hinckley Dams. Neither DEC nor USFWS have been filed and preliminary prescriptions to date. Following the filing of the FLA, fishway prescriptions, if any, will be filed within 60 days after FERC's Notice for Acceptance and Ready for Environmental Analysis (REA Notice) per FERC's ILP regulations, 18 Code of Federal Regulation (CFR) 5.23(a) (Source: West Canada Creek Hydroelectric Project FERC No. 2701-NY Application, Feb 2021).

ENDANGERED AND THREATENED SPECIES

The Endangered Species Act (ESA) (19 United States Code [USC] § 1536(c)), as amended, provides a program for the conservation of threatened and endangered plants and animals and their habitats in which they are found. The lead federal agencies for implementing ESA are the USFWS and the National Oceanic and Atmospheric Administration (NOAA) Fisheries Service. Section 7 of the ESA, requires federal agencies, in consultation with the USFWS and/or NOAA to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of designated critical habitat of such species. No federally listed species are known to occur within West Canada Creek watershed (Source: West Canada Creek Hydroelectric Project FERC No. 2701-NY Application, Feb 2021).

WATER RESOURCES AND WATER QUALITY

West Canada Creek Project P-2701 Final License Application - Exhibit E features a Water Quality study that monitored six sites in the West Canada for both water quantity and quality, including the Herkimer Project.

The Clean Water Act of 1972 was established under the Federal Water Pollution Control Act Amendment. Sections 303 and 305 of the CWA provide guidance for the national program for water quality protection for the United States (USEPA 2020a, 2020b). Water quality standards for the Project waters are regulated by the NYSDEC under delegated authority from the U.S. Environmental Protection Agency (USEPA).

All waters in New York State are assigned letter classifications that denote their best use; letter classes A, B, C and D are assigned to fresh surface waters. Letters assigned with T or TS pertain to trout or trout spawning waters respectively. The water quality classifications for the West Canada Creek Drainage Basin are identified in NYSDEC's water quality regulations 6 NYCRR Part 880 (New York State 2020a) and water quality standards associated with fresh surface waters are provided at 6 NYCRR Part 703 (New York State 2020b, 2020c Water Guidelines).

The Herkimer Project sits just below Kast Bridge, heading south toward the confluence of the Mohawk River and is classified C/C(T) by NY State 20(a) and 20 (b) guidelines (Source: New York 2020a and 2020b Water Quality Guidelines). Water quality near the Herkimer project shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

As the developer of a small hydro facility which needs significant repairs, Stone Ridge Hydro must move in a timely fashion to retain consultants, in addition to those already on board for water quality studies, that can work its study needs into their schedules for 2022 and 2023. The ILP is not necessary as the issues already identified by the resources are not complex and do not require use of the ILP's scheduled submissions, responses, etc., in order for Stone Ridge Hydro to "engage with resource" agencies. Just above Herkimer at Kast Bridge (Site 9), dissolved oxygen was above the instantaneous standard except for short periods (15 minutes to 6 hours) on August 24-28, 2019; dissolved oxygen was above the daily average water quality standard except for August 28, 2019 (5.6 mg/L).

Further results of the study include pH being within the range of the water quality standard (6.5 to 8.5) during the monitoring period at Poland (Site 6), Newport (Site 7), and downstream Brown Island (Site 8). At Nine Mile Creek Feeder Dam (Site 5), Kast Bridge (Site 9), and Herkimer (Site 10), pH was in attainment with the standard except for infrequent, brief excursions. Variability in conductivity at the

downstream sites followed precipitation events and corresponded with increased river flow (as measured at Kast Bridge) and was likely the result of elevated runoff into West Canada Creek (Kleinschmidt 2020f, Source: West Canada Creek Project P-2701 Final License Application, Feb 2021- Exhibit E).

SEDIMENT

Following Department of Interior and NYSDEC recommendations, Stone Ridge Hydro will develop an erosion control plan in consultation with the Service and NYSDEC. The Prospective Applicant will repair and restore the left bank utilizing Natural Stream Design Techniques and then evaluate and construct measures to limit the continued negative impacts of high flows on the left bank and dam abutment by removing and disposing of sediments from the tailwater channel. During the project, Stone Ridge Hydro will initiate and consult with the Service and NYSDEC during the 5-year relicensing process, including conducting our requested relicensing studies and install appropriate fish protection and passage facilities after issuance of a new license.

FISH AND FISHERIES HABITAT

Several fisheries management plans for the West Canada Creek watershed have recently been developed and/or updated by other projects. Compared with the upper West Canada Creek, the lower West Canada Creek contains a wider range and variety of fish due to having less embankments and bypasses as obstacles. As a result, the area of the Herkimer Dam of the lower West Canada Creek is noted as having a diverse fish assemblage. This flow regime in the downstream West Canada Creek provides suitable habitat and refuge for the species and life stages occurring there, including a popular trout fishery in West Canada Creek (Source: West Canada Creek Project P-2701 Final License Application - Exhibit E). The lower reach is largely dominated by warmwater species, but cold/cool water species occur near tributaries.

Downstream on the West Canada Creek, from Kast Bridge to Herkimer, has low gradient riffle-runs and run mesohabit. The lower West Canada Creek River consists of both riverine and impounded reaches. Habitat in the riverine reaches are dominated by riffle and run mesohabitat or both (Kleinschmidt 2020a). Generally, wetted area in low gradient mesohabitats of West Canada Creek appears to only change gradually in response to Project operation flows. Runs and run-pools gain depth rather than wetted area (Kleinschmidt 2020a).

A recent Mussel Sampling Study (See Attachment E) cited in the West Canada Creek Project (P-2701) Final License Application – Exhibit E (chart above), noted the presence of eastern elliptio (Elliptio complanata) and eastern pearlshell (Margaritifera margaritifera) mussels in water depths during observation of 0.5 feet to 2.5 feet, mixed with a substrate of sand, gravel, and cobble. Minimal shell wear was observed among the sample of pearlshell (n=6), suggesting a healthy population.

The shell wear was observed with the two live elliptio individuals exhibited. Shells from both species were observed at all five sites with live mussels (Kleinschmidt 2020b). With vegetation and species on the upper West Canada being similar to the lower West Canada, the Prospective Applicant would conduct a follow up study at the Herkimer Dam to compare results.

Twenty-five (25) species were caught during the 2019 backpack and barge electrofishing survey in the lower West Canada Creek, which extended from downstream of the Trenton tailrace to Herkimer (Figure 3-12). Cutlip minnows were the most abundant species (24 percent of total catch) followed by common shiners (12.3 percent of the total catch). Table 3-11 lists all the species caught in the downstream reach of the West Canada Creek and their relative abundance. No pronounced linear spatial distribution pattern among species was observed from Trenton tailrace to Herkimer, although some cold/cool-water species occurred in the mixing zone near the confluence of tributaries. For example, brown and brook trout were collected near several tributary streams, suggesting these tributaries may be important for thermal refuge during the warm season and perhaps are a source of recruitment to the West Canada Creek (Kleinschmidt 2020d).

The NYSDEC reported that approximately 52,190 trout were stocked within West Canada Creek during 2016. More recently, between 2017 and 2019, stocking occurred in both West Canada Creek and Cincinnati Creek, a major tributary to West Canada Creek 13 NYSDEC conducted two fall stocking events in 2012 and 2014 for brown trout in Oneida County. Fish stocked during this time ranged in length between 7.5 to 13 inches and were released between Nine Mile Creek Feeder Dam and Herkimer from March through June (Jana Lantry, NYSDEC personal communication January 7, 2020),

(West Canada Creek Project (P-2701) Final License Application - Exhibit E February 2021 E-3-48 Erie Boulevard Hydropower, L.P.).

Table 3-11 Fish Species caught in September 2019 with Backpack and Barge Electrofishing in Lower West Canada Creek

Species	Genus and Species	No. Fish	Proportion of Species (%)
Cutlip Minnow	*Exoglossum maxillingua*	289	24.0
Common Shiner	*Luxilus cornutus*	148	12.3
Fantail Darter	*Etheostoma flabellare*	123	10.2
Tessellated Darter	*Etheostoma olmstedi*	123	10.2
Longnose Dace	*Rhinichthys cataractae*	93	7.7
White Sucker	*Castostomus commersonii*	86	7.1
Blacknose Dace	*Rhinichthys atratulus*	71	5.9
Bluntnose Minnow	*Pimephales notatus*	63	5.2
Smallmouth Bass	*Micropterus dolomieu*	59	4.9
Yellow Bullhead	*Ameiurus natalis*	30	2.5
Fallfish	*Semotilus corporalis*	29	2.4
Creek Chub	*Semotilus atromaculatus*	15	1.2
Slimy Sculpin	*Cottus cognatus*	15	1.2
Brown Bullhead	*Ameiurus nebulosus*	13	1.1
Brown Trout	*Salmo trutta*	12	1.0
Mimic Shiner	*Notropis volucellus*	9	0.7
Trout Perch	*Percopsis omiscomaycus*	8	0.7
Rock Bass	*Ambloplites rupestris*	6	0.5
Brook Stickleback	*Culaea inconstans*	3	0.2
Bluegill	*Lepomis macrochirus*	2	0.2
Brook Trout	*Salvelinus fontinalis*	2	0.2
Pugnose Minnow	*Opsopoeodus emiliae*	2	0.2
Yellow Perch	*Perca flavescens*	2	0.2
Log Perch	*Percina caprodes*	1	0.1
Spottail Shiner	*Notropis hudsonius*	1	0.1
Total	*Exoglossum maxillingua*	**1,205**	**100**

Source: Kleinschmidt 2020d.

HISTORIC PROPERTIES

Appendix B lists the properties currently on the National Register of Historical Places in the Village and Town of Herkimer in Herkimer County.

Herkimer County is a county located in the U.S. State of New York. It was created in 1791 out of part of Montgomery County. It is named after General Nicholas Herkimer (also known as Nikolaus Herchheimer; c. 1728 – August 16, 1777), who died from battle wounds in 1777 after taking part in the Battle of Oriskany. Its county seat is the Village of Herkimer.

The Herkimer County is in the heart of the Mohawk Valley Region, which includes the counties of Fulton, Hamilton, Herkimer, Montgomery, Oneida and Schoharie covering 5,862 square miles. It is the

only region in New York that does not border another state or Canada. The region was important to the early history of New York; and moreover, the westward expansion of United States as the Mohawk Valley is the birthplace of the Erie Canal, which upon completion in 1825, served as the first passageway from the Atlantic Ocean into western North America by way of the Mohawk River, which flowing west to east, through Oneida, Herkimer and Montgomery counties, continuing into the Hudson River. The Erie Canal and railways also passed through the Mohawk Valley corridor, giving birth to industrial development in the Region.

The Region has remained mostly rural. The northern portions are primarily located in the Adirondack Park, the largest protected natural area in the lower 48 states. The Park has several forested areas located in Fulton, Hamilton, Herkimer and Oneida counties, including the West Canada Lake Wilderness, the Black River Wild Forest and the Silver Lake Wilderness. There are also many small lakes, creeks and reservoirs, with the largest body of water being the Great Sacandaga Lake in Fulton County. To the west of the Adirondack Park, the upper part of Oneida County is located in the Tug Hill region – a 2,162 square mile area with a concentration of woodlands and marshes.

The Adirondack Park has a large portion located in Herkimer County; and since its founding in 1892, is the largest publicly-protected area in the contiguous United States, encompassing about six million acres. Adirondack Park has a mixture of state and private land with over 3,000 lakes, 30,000 miles of rivers and streams, 42 peaks over 4,000 feet, and a wide variety of habitats, including globally unique wetland types and old growth forests (https://wildadirondacks.org/).

RECREATIONAL RESOURCES

The West Canada Creek offers a multitude of recreational experiences for the public. Exhibit E (page 36) shows the downstream recreation opportunities throughout the West Canada Creek below P-2701 – Prospect and Trenton Falls Dams.

In Document Accession #: 20220323-5052 Filed Date: 03/23/2022, American Whitewater, in response to a Notice of Application for Project No. 2701-059 commented on a a controlled-flow whitewater boating study of the reach between Middleville and Kast Bridge located approximately 20 miles below the Trenton powerhouse and less than a mile from the Herkimer Dam.

American Whitewater commented that project operations have an adverse impact on recreation activity due to the timing of peaking operations. Further noting that whitewater boaters, peaking operations eliminate paddling opportunities in the 8-mile reach between Middleville and Kast Bridge causing flows to frequently fall below boatable levels.

Noting the study, American Whitewater notes that peak energy generation in energy markets have evolved from longer, lower magnitude pulses earlier into the day to shorter higher pulses in the late afternoon, which has reduced the opportunity for recreation opportunity downstream. American Whitewater points out that boaters in the Kast Bridge section would regularly paddle on Wednesday evenings during the boating season, with 30-40 boaters joining together for a late afternoon/early evening paddle, which no longer exists. Since the shift in energy generation, whitewater boating opportunity on West Canada Creek at Kast Bridge has vastly diminished as peaking flows are rarely available during boating hours.


Local kayakers challenge West Canada

Photo: Observer Dispatch (published date unknown, est. 2000)

American Whitewater summarized the on-water assessment of the Kast Bridge section as follows:
• The study reach provides whitewater boaters of varying levels of experience and craft with a high-quality boating experience over a range of flows that includes both target flows evaluated.
• Study participants were able to identify minimum acceptable and optimal flow ranges within the minimum and maximum hydraulic capacity of the project.
• Many study participants who have paddled the Kast Bridge reach for decades described the reach as being an important training reach for less experienced paddlers that would attract scores of paddlers on evenings and weekends.
• Changes in generating patterns have drastically reduced whitewater boating opportunity on the Kast Bridge reach.

American Whitewater identifies a Level II (beginner/intermediate) 28-mile long whitewater boating run beginning at the Dover Road Bridge and extending to Herkimer. American Whitewater identifies two runs along this stretch with Section 1 extending from Dover Road to Route 29 in Middleville, and Section 2 from Route 29 in Middleville to Route 7 at Kast Bridge north of Herkimer (Figure 3-23). Section 1 is described as Class I-II with one portage near the Newport Dam, and Section 2 is described as Class II-II+ (AW 2020c) (West Canada Creek Project (P-2701) Final License Application - Exhibit E February 2021 E-3-48 Erie Boulevard Hydropower, L.P.).

The Prospective Applicant will propose to work with American Whitewater to encourage whitewater boating participation in the West Canada Creek, pending additional studies on optimal flows from Kast Bridge to the Herkimer Dam.

The Herkimer Kampground of America (KOA) Resort and Campground is located south Middleville and features both the Herkimer Diamond Mine and the campground. The KOA campground is located next to the West Canada Creek. The KOA features cabins and lodges as well as tent and recreational vehicle (RV) hook-up sites.The Herkimer Diamond Mine, across the street from the KOA campground, is a NYS tourist attraction with tours for mining for quartz crystals, shopping and dining opportunities (https://koa.com/campgrounds/herkimer/recreation/).

LAND USE AND AESTHETICS

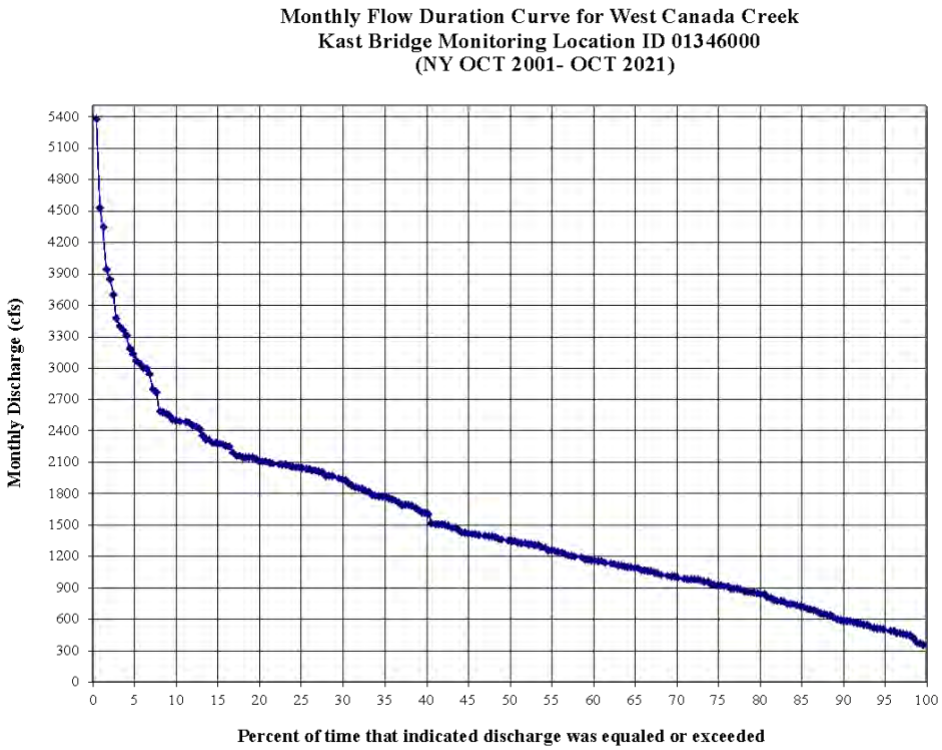
The project is located in a rural area comprised of residential, commercial, and industrial uses (Exhibit G). The project area is surrounded by a gradual slope from Route 28/Middleville Road and a rural area comprised of residential, commercial, and industrial uses within the Town of Herkimer. The reservoir has a surface area of 19 acres, with storage capacity of 163 acre-feet and normal water-surface elevation of 420.5 feet msl.

SOCIOECONOMIC

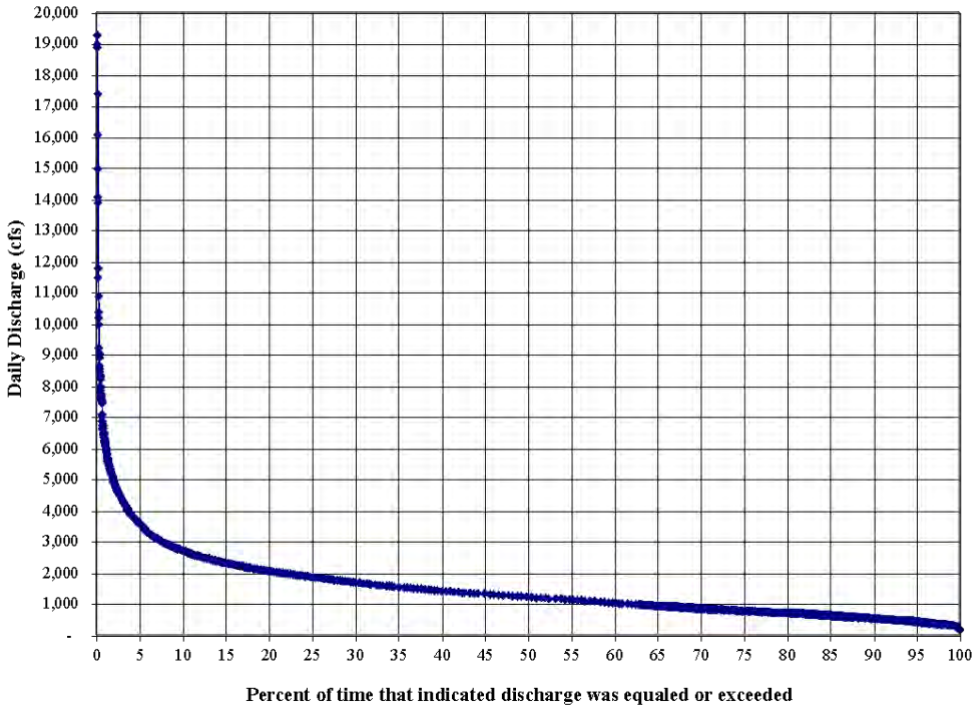
In 2019, Herkimer County, NY had a population of 60,139 (April 2021) with median household income of $58,439 and 12% of the population below the poverty level. The five largest ethnic groups in Herkimer County, NY are White (Non-Hispanic) (94.2%), Two+ (Non-Hispanic) (1.5%), White (Hispanic) (2.3%), Black or African American (Non-Hispanic) (1.5%), and Asian (Non-Hispanic) (0.6%). The economy of Herkimer County, NY employs 28.8k people. The largest industries in Herkimer County, NY are Health Care & Social Assistance (5,204 people), Retail Trade (3,796 people), and Manufacturing (3,512 people), and the highest paying industries are Utilities ($64,205), Professional, Scientific, & Technical Services ($51,813), and Construction ($48,750) (For more demographic data See Appendix C- Census Profile).

INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(v)

FLOW DURATION CURVES



Daily Flow Duration Curve for West Canada Creek
Kast Bridge Monitoring Location ID 01346000
(NY OCT 2001- OCT 2021)



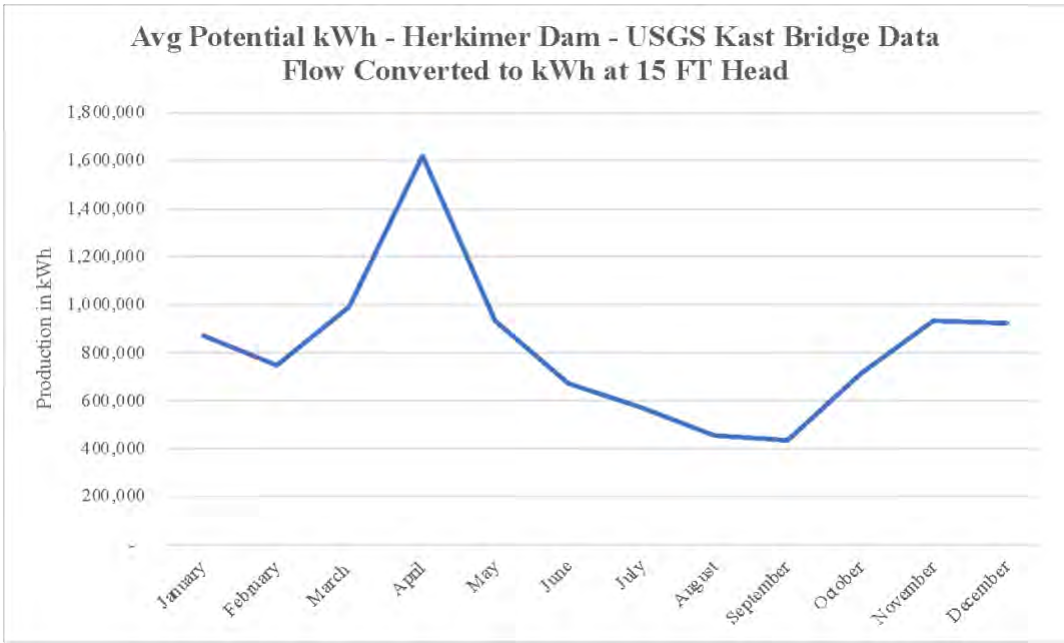
USGS Gage Kast Bridge - Herkimer NY

Near Herkimer Hydro Dam, Herkimer, NY (<1 Mile)

Flow in CFS

(Period Oct 2001 - Oct 2021)

	Min	Max	Avg
January	646	3,311	1,617
February	530	2,285	1,389
March	602	2,942	1,843
April	1,259	5,379	3,017
May	1,012	3,185	1,733
June	546	2,772	1,251
July	463	2,998	1,060
August	419	2,052	848
September	355	2,035	810
October	379	2,480	1,325
November	729	3,474	1,734
December	989	2,281	1,722



Streamflow and water regime information was observed using the USGS Kast Bridge water gauge (Location ID 01346000) located less than 1-mile from the Herkimer Dam) was analyzed to model the discharge flows in the West Canada Creek and study historical flows witnessed in the watershed. The Herkimer Dam has not operated since June of 2006, but Stone Ridge Hydro is positioned to repower four existing ESAC generator/turbine units and replace up to two of the units in 2023.

With five turbines operating at 1,680 kW nameplate, the project is expected to produce ~9M kWh per year. A low-flow Flygt turbine (80 kw) at the beginning of the spillway will be assessed and repowered. Historically, this turbine required a release of up to 130 cfs, along with the release of 24 cfs from the Crest/Leaf gate and 66 cfs from the Slide/Sluice gate, confirmed by USF&WS March 31, 1997 letter to Algonquin (USF&WS Document Ascension #20010315-0107, date of filing 03/12/2001).

INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(vi)

After consulting with local government and tax officials and receiving support for continuing to develop this project, it is Stone Ridge Hydro's intent to continue to work to obtain an exempt license and restore power to the greater West Canada Creek watershed while preserving the riparian, environmental, tribal and recreational rights to this resource. Upon approval for an exempt license (TLP), Stone Ridge Hydro will immediately begin seasonal instream field work for the following studies that are anticipated to be requested, among others, by agencies and NGOs:

Aquatic Mesohabitat Assessment Study
Macroinvertebrate and Freshwater Mussel (expanded to Lower West Canada Creek)
Impoundment Shoreline Characterization
Fish Assemblage Assessment
Updated Fish Entrainment and Turbine Passage Survival Assessment
Water Quality Study
Recreation Use, Needs and Access Study
Whitewater Boating Flow and Access Study

Aesthetic Flow Assessment Study
Water Quality (NYS Department of Environmental Conservation)
Sampling Guidance #1 for Hydropower Studies (Dissolved Oxygen, Temperature, pH, Nutrients, Chlorophyll)
Mussel Surveys
Habitat and Bypass Flows Assessments (including attraction flows for passage facilities)
Erosion Survey and Assessment
Rare and Endangered Species Surveys
APE survey
Recreation and Aesthetic Surveys and Assessments

INFORMATION REQUIRED BY 18 C.F.R. 16.8(B)(2)(vii)

The Prospective Applicant notes that within the comment period provided in § 4.38(c)(5), a fish and wildlife agency must provide a prospective section 30(c) applicant with a reasonable estimate of the total costs the agency anticipates it will incur to set mandatory terms and conditions for the proposed project. An agency may provide an applicant with an updated estimate as it deems necessary. If an agency believes that its most recent estimate will be exceeded by more than 25 percent, it must supply the prospective applicant or applicant with a new estimate and submit a copy to the Commission. The Prospective Applicant will pay all associated fees related to the exempt licensing process.

APPENDIX A
FERC ORDERS

VitalLaw®
Selected Items from: Search Results

APPENDIX A FERC ORDERS

Contents

1 FERC - 75 FERC, 39 FERC ¶62,077, Trafalgar Power, Inc., Project No. 9709-000, FERC (Federal Energy Regulatory Commission), (Apr. 22, 1987)
Trafalgar Power, Inc., Project No. 9709-000 [63,221]
[¶62,077]

Trafalgar Power, Inc., Project No. 9709-000 Order Issuing License (Minor Project) (Issued April 22, 1987)
Fred E. Springer, Director, Office of Hydropower Licensing.

Trafalgar Power, Inc. has filed a license application under Part I of the Federal Power Act (Act) to construct, operate, and maintain the Herkimer Project, located in Herkimer County, New York, on the West Canada Creek, a navigable waterway of the United States and a tributary of the Mohawk River. [1]

Notice of the application has been published. No protests or motions to intervene were filed in this proceeding, and no agency objected to issuance of this license. Comments received from interested agencies and individuals have been fully considered in determining whether to issue this license, as discussed below.

Recommendations of Federal and State Fish and Wildlife Agencies

Section 10(j) of the Act, as amended by the Electric Consumers Protection Act of 1986 (ECPA), Pub. L. No. 99-495, requires the Commission to include license conditions based on recommendations of Federal and state fish and wildlife agencies for the protection, mitigation, and enhancement of fish and wildlife. The environmental assessment (EA) for the Herkimer Project addresses the concerns of the Federal and state fish and wildlife agencies, and makes recommendations consistent with those of the agencies.

The New York Department of Environmental Conservation (DEC) has requested authority to approve toxic spoil disposal alternatives and a landscape plan, and to stipulate minimum flow requirements for

any activity that would result in the interruption, diversion, or modification of flows around or downstream from the project dam. The DEC also requests the authority to direct changes in project operation during any nonproject related emergency to ensure protection of water quality and aquatic biota of West Canada Creek. These recommendations are considered outside the scope of section 10(j) of the Act since the recommendations do not request specific terms and conditions for the protection, enhancement, or mitigation of fish and wildlife resources. Conditions contained in the 401 water quality certificate issued on December 12, 1986, provide the DEC with the authority to approve alternative toxic spoil disposal sites and to direct changes in project operation during emergency situations to protect water quality. The Commission retains the authority through this license to set requirements and require changes in project structures or operation to protect the aquatic biota and other flow-dependent resources in the creek. Article 402 does however require the licensee to obtain an agreement with the DEC prior to initiating any action that would modify the run-of-river mode of operation.

Comprehensive Plans

Section 10(a)(2) of the Act, as amended by ECPA, requires the Commission to consider the extent to which a project is consistent with comprehensive plans (where they exist) for improving, developing, or conserving a waterway or waterways affected by the project that are prepared by an agency established pursuant to Federal law that has the authority to prepare such plans or by the state in which the facility is or will be located. The Commission considers plans to be within the scope of section 10(a)(2) only if such plans reflect the preparers' own balancing of the competing uses of a waterway, based on their data and applicable policy considerations (i.e., consider and balance all relevant public use considerations). With regard to plans prepared at the state level, such plans are within the scope of section 10(a)(2) only if they are prepared and adopted pursuant to a specific act of the state legislature and developed, implemented, and managed by an appropriate state agency. [2]

No comprehensive plans of the types referred to in section 10(a)(2) of the Act relevant to this project have been identified. Three resource plans [3] that touch on various aspects of waterway management were brought to our attention and have been reviewed in relation to the proposed project as part of our broad public interest examination under section 10(a)(1) of the Act. No conflicts were found.

Based upon our review of the agency and public comments filed in this proceeding, and our independent analysis, as discussed herein, we conclude that the Herkimer Project is best adapted to a comprehensive plan for West Canada Creek taking into consideration the

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beneficial public uses described in section 10(a)(1) of the Act.

Summary of Findings

An EA was issued for this project. Background information, analysis of impacts, support for related license articles, and the basis for a finding of no significant impact on the environment are contained in the EA attached to this order. A water quality certificate for this project was issued on December 12, 1986. Issuance of this license is not a major Federal action significantly affecting the quality of the human environment.

The design of this project is consistent with the engineering standards governing dam safety. The project will be safe if constructed, operated, and maintained in accordance with the requirements of this license. Analysis of related issues is provided in the Safety and Design Assessment attached to this order.

The Director, Office of Hydropower Licensing, concludes that the project would not conflict with any planned or authorized development, and would be best adapted to comprehensive development of the waterway for beneficial public uses.

The Director orders:

(A) This license is issued to Trafalgar Power, Inc. (licensee) for a period of 40 years, effective the first day of the month in which this order is issued, to construct, operate, and maintain the Herkimer Project. This license is subject to the terms and conditions of the Act, which is incorporated by reference as part of this license, and subject to the regulations the Commission issues under the provisions of the Act.

(B) The project consists of:

(1) All lands, to the extent of the licensee's interests in those lands, enclosed by the project boundary shown by Exhibit G:

Exhibit FERC No. Showing

1 9709 5 Project Lands and

Boundaries

(2) Project works consisting of: (1) a timber crib dam consisting of: (a) a 9-foot-high, 95-foot-long section with a crest elevation of 420.0 feet m.s.l.; and (b) a 12-foot-high, 145-foot-long section with a crest elevation of 419.2 feet m.s.l.;
(2) a reservoir with a surface area of 19 acres, a storage capacity of 163 acre-feet, and a normal water surface elevation of 420.5 feet m.s.l.; (3) timber flashboards; (4) an intake structure; (5) a reinforced concrete and steel powerhouse containing two generating units with a capacity of 525 kW each for a total installed capacity of 1,050 kW;
(6) a 50-foot-long, 13.2 kilovolt transmission line; and (7) appurtenant facilities.

The project works generally described above are more specifically shown and described by those portions of Exhibits A and F recommended for approval in the attached Safety and Design Assessment.

(3) All of the structures, fixtures, equipment or facilities used to operate or maintain the project and located within the project boundary, all portable property that may be employed in connection with the project and located within or outside the project boundary, and all riparian or other rights that are necessary or appropriate in the operation or maintenance of the project.

(C) The Exhibit G described above and those sections of Exhibits A and F recommended for approval in the attached Safety and Design Assessment are approved and made part of the license.

(D) The following sections of the Act are waived and excluded from the license for this minor project:

4(b), except the second sentence; 4(e), insofar as it relates to approval of plans by the Chief of Engineers and the Secretary of the Army; 6, insofar as it relates to public notice and to the acceptance and expression in the license of terms and conditions of the Act that are waived here; 10(c), insofar as it relates to depreciation reserves; 10(d); 10(f); 14, except insofar as the power of condemnation is reserved; 15; 16; 19; 20; and 22.

(E) This license is subject to the articles set forth in Form L-14 (October 1975) [reported at 54 FPC 1876], entitled "Terms and Conditions of License for Unconstructed Minor Project Affecting Navigable Waters," except Article 15. The license is also subject to the following additional articles:

Article 201. The licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued:

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 1,400 horsepower.

Article 202. The licensee shall clear and keep clear to an adequate width all lands along open conduits and shall dispose of all temporary structures, unused timber, brush,

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refuse, or other material unnecessary for the purposes of the project which result from maintenance, operation, or alteration of the project works. In addition, all trees along the periphery of project reservoirs which may die during operations of the project shall be removed. All clearing of lands and disposal of unnecessary material shall be done with due diligence to the satisfaction of the authorized representative of the Commission and in accordance with

appropriate Federal, state, and local statutes and regulations.

Article 301. The licensee shall commence construction of project works within two years from the issuance date of the license and shall complete construction of the project within four years from the issuance date of the license.

Article 302. The licensee shall at least 60 days prior to start of construction, submit one copy to the Commission's Regional Director and two copies to the Director, Division of Inspections, of the final contract drawings and specifications for pertinent features of the project, such as water retention structures, powerhouse, and water conveyance structures. The Director, Division of Inspections, may require changes in the plans and specifications to assure a safe and adequate project.

Article 303. The licensee shall review and approve the design of contractor-designed cofferdams and deep excavations prior to the start of construction and shall ensure that construction of cofferdams and deep excavations is consistent with the approved design. At least 30 days prior to start of construction of the cofferdam, the licensee shall submit to the Commission's Regional Director and Director, Division of Inspections, one copy each of the approved cofferdam construction drawings and specifications and the letter(s) of approval.

Article 304. The licensee shall within 90 days of completion of construction file, for approval by the Commission, revised Exhibits A, F and G to describe and show the project as built.

Article 401. The licensee, after consultation with the New York State Department of Environmental Conservation, the
U.S. Fish and Wildlife Service, and the Department of the Army, Buffalo District Corps of Engineers, shall file with the Commission within 1 year from the date of issuance of this license, a comprehensive plan to control erosion, dust, and slope stability, and to minimize the quantity of sediment or other potential water pollutants resulting from project construction, spoil disposal, and project operation. The plan shall also include descriptions and functional design drawings of control measures, topographic map locations of control measures, an implementation schedule, monitoring and maintenance programs for project construction and operations, and provisions for periodic review of the plan and for making any necessary revisions to the plan. The licensee shall include in the filing documentation of agency consultation on the plan, and copies of agency comments or recommendations.

If the licensee disagrees with any agency recommendations, the licensee shall provide a discussion of the reasons for disagreeing, based on actual-site geological, soil, and groundwater conditions. The Commission reserves the right to require changes to the plan. Unless the Director, Office of Hydropower Licensing, directs otherwise, the licensee may commence project-related land-clearing, land-disturbing, and spoil-producing activities at the project, 60 days after filing this plan.

Article 402. The licensee shall operate the Herkimer Project in an instantaneous run-of-river mode for the protection of fish and wildlife resources in West Canada Creek. The licensee, in operating the project in an instantaneous run-of- river mode, shall at all times act to ensure that the reservoir surface elevation is equal to the crest elevation of the dam or flashboards when in use, that discharges from the project are maintained so that flow in West Canada Creek, as measured immediately downstream from the project tailrace, approximates the instantaneous sum of inflow to the project reservoir, and that flows in excess of the maximum capacity and less than the mimimum capacity of the project are released from the dam spillway. Instantaneous run-of-river operation may be temporarily modified by operating emergencies beyond the control of the licensee, and for short periods upon mutual agreement between the licensee and the New York State Department of Environmental Conservation.

Article 403. The licensee, after consultation with the New York State Department of Environmental Conservation and the U.S. Fish and Wildlife Service, and within 6 months after the date of issuance of this license, shall file for Commission approval, functional design drawings of the trashrack to be constructed at the Herkimer Project. The

design of the trashrack shall include, but not be limited to, slot spacing not to exceed 2 inches and orientation of the rack at a 45-degree angle to the direction of current flow. The filing shall include comments from the aforementioned agencies on the drawings. The licensee shall file as-built drawings with the Commission within 6 months after completing construction.

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Article 404. The licensee, after consulting with the State Historic Preservation Officer (SHPO), but before modifying, restoring, rehabilitating, or dismantling existing structures, or constructing new

buildings, structures, or facilities, shall file with the Commission a cultural resources management plan designed to avoid or mitigate adverse impacts to properties at the Herkimer Project that are listed on or eligible for listing on the National Register of Historic Places. The Commission may require changes to the plan.

In designing the plan, the licensee shall devote particular attention to protecting the Nineteenth Century hydraulic power canal and its cut-stone channel walls. At a minimum, the plan should contain provisions for executing the following functions: (1) modifying, restoring, and rehabilitating existing structures in a manner sympathetic with their historic character; (2) constructing additional buildings, structures, and facilities that do not needlessly conflict with the historic character of the existing structures; (3) documenting historic structures that would be dismantled according to the standards of the Historic American Engineering Record, and other relevant standards; (4) avoiding effects from staging activities on historic structures; (5) minimizing visual effects; and (6) filing with the Commission, within 4 years of the date of issuance of this license, copies of a letter from the SHPO containing its opinion as to whether the facilities have been constructed, modified, restored, rehabilitated, and dismantled consistent with the plan.

The plan, together with copies of a letter from the SHPO commenting on the plan, shall be filed with the Commission. If recommendations of the SHPO are not adopted, the plan should state the reasons. The licensee shall not begin modifying, restoring, rehabilitating, or dismantling existing structures, nor constructing new buildings, structures, or facilities, until notified by the Director, Office of Hydropower Licensing, that the plan complies with the requirements of this article. The licensee shall make funds available in a reasonable amount for developing and implementing the plan.

Article 405. The licensee, before starting any land-clearing or land-disturbing activities, other than those specifically authorized in this license, shall consult with the State Historic Preservation Officer (SHPO). If the licensee discovers previously unidentified archeological or historic properties during the course of constructing or developing project works or other facilities at the project, the licensee shall stop all land-clearing and land-disturbing activities in the vicinity of the properties and consult with the SHPO. In either instance, the licensee shall file with the Commission a cultural resources management plan prepared by a qualified cultural resources specialist after having consulted with the SHPO.

The management plan shall include the following: (1) a description of each discovered property indicating whether it is listed on or eligible to be listed on the National Register of Historic Places; (2) a description of the potential effect on each discovered property; (3) proposed measures for avoiding or mitigating effects; (4) documentation of the nature and extent of consultation; and (5) a schedule for mitigating effects and conducting additional studies. The Commission may require changes to the plan.

The licensee shall not begin land-clearing or land-disturbing activities, other than those specifically authorized in this license, or resume such activities in the vicinity of a property discovered during construction, until informed that the requirements of this article have been fulfilled.

Article 406. The licensee, after consultation with the New York State Department of Environmental Conservation and the New York State Office of Parks, Recreation, and Historic Preservation, and before beginning project operation,

shall design, construct and maintain fisherman access to the west bank of West Canada Creek to include a parking area for 8 to 10 vehicles, stairs and a footpath from the parking area to the creek, and signs indicating the area's availability to the public. Within 90 days after completing these facilities, the licensee shall file with the Commission, a written description of these facilities and as-built drawings showing the type and location of these facilities. The filing shall include documentation of agency comments.

Article 407. The licensee, after consultation with the New York State Department of Environmental Conservation and the New York State Office of Parks, Recreation and Historic Preservation, and within 1 year from the date of issuance of this license, shall file with the Commission a plan to ensure fisherman access to the project area. The plan at a minimum shall include: (a) a description of the methods for compensating any loss of access to the railroad bed that is a direct result of project construction and operation; (b) a description of the methods for maintaining fisherman access to the project area upstream and downstream of the project dam; (c) a drawing showing any public access areas that are no longer available to the public

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and any areas substituted for lost areas; and (d) documentation of agency consultation.

Article 408. (a) In accordance with the provisions of this article, the licensee shall have the authority to grant permission for certain types of use and occupancy of project lands and waters and to convey certain interests in project lands and waters for certain other types of use and occupancy, without prior Commission approval. The licensee may exercise the authority only if the proposed use and occupancy is consistent with the purposes of protecting and enhancing the scenic, recreational, and other environmental values of the project. For those purposes, the licensee shall also have continuing responsibility to supervise and control the uses and occupancies for which it grants permission, and to monitor the use of, and ensure compliance with the covenants of the instrument of conveyance for, any interests that it has conveyed, under this article. If a permitted use and occupancy violates any condition of this article or any other condition imposed by the licensee for protection and enhancement of the project's scenic, recreational, or other environmental values, or if a covenant of a conveyance made under the authority of this article is violated, the licensee shall take any lawful action necessary to correct the violation. For a permitted use or occupancy, that action includes, if necessary, cancelling the permission to use and occupy the project lands and waters and requiring the removal of any non-complying structures and facilities.

(b) The types of use and occupancy of project lands and waters for which the licensee may grant permission without prior Commission approval are: (1) landscape plantings; (2) non-commercial piers, landings, boat docks, or similar structures and facilities that can accommodate no more than 10 watercraft at a time and where said facility is intended to serve single-family type dwellings; and (3) embankments, bulkheads, retaining walls, or similar structures for erosion control to protect the existing shoreline. To the extent feasible and desirable to protect and enhance the project's scenic, recreational, and other environmental values, the licensee shall require multiple use and occupancy of facilities for access to project lands or waters. The licensee shall also ensure, to the satisfaction of the Commission's authorized representative, that the uses and occupancies for which it grants permission are maintained in good repair and comply with applicable state and local health and safety requirements. Before granting permission for construction of bulkheads or retaining walls, the licensee shall: (1) inspect

the site of the proposed construction, (2) consider whether the planting of vegetation or the use of riprap would be adequate to control erosion at the site, and (3) determine that the proposed construction is needed and would not change the basic contour of the reservoir shoreline. To implement this paragraph (b), the licensee may, among other things, establish a program for issuing permits for the specified types of use and occupancy of project lands and waters, which may be subject to the payment of a reasonable fee to cover the licensee's costs of administering the permit program. The Commission reserves the right to require the licensee to file a description of its standards, guidelines, and procedures for implementing this paragraph (b) and to require modification of those standards, guidelines, or procedures.

(c) The licensee may convey easements or rights-of-way across, or leases of, project lands for: (1) replacement, expansion, realignment, or maintenance of bridges and roads for which all necessary state and Federal approvals have been obtained; (2) storm drains and water mains; (3) sewers that do not discharge into project waters; (4) minor access roads; (5) telephone, gas, and electric utility distribution lines; (6) non-project overhead electric transmission lines that do not require erection of support structures within the project boundary; (7) submarine, overhead, or underground major telephone distribution cables or major electric distribution lines (69-kV or less); and (8) water intake or pumping facilities that do not extract more than one million gallons per day from a project reservoir. No later than January 31 of each year, the licensee shall file three copies of a report briefly describing for each conveyance made under this paragraph (c) during the prior calendar year, the type of interest conveyed, the location of the lands subject to the conveyance, and the nature of the use for which the interest was conveyed.

(d) The licensee may convey fee title to, easements or rights-of-way across, or leases of project lands for: (1) construction of new bridges or roads for which all necessary state and Federal approvals have been obtained; (2) sewer or effluent lines that discharge into project waters, for which all necessary Federal and state water quality certificates or permits have been obtained; (3) other pipelines that cross project lands or waters but do not discharge into project waters; (4) non-project overhead electric transmission lines that require erection of support structures within the project boundary, for which all necessary Federal and state approvals have been obtained; (5) private or public marinas that can accommodate no more than 10 watercraft at a time and are located at least one-half mile from any other private or public marina; (6)

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recreational development consistent with an approved Exhibit R or approved report on recreational resources of an Exhibit E; and (7) other uses, if: (i) the amount of land conveyed for a particular use is five acres or less; (ii) all of the land conveyed is located at least 75 feet, measured horizontally, from the edge of the project reservoir at normal maximum surface elevation; and (iii) no more than 50 total acres of project lands for each project development are conveyed under this clause (d)(7) in any calendar year. At least 45 days before conveying any interest in project lands under this paragraph (d), the licensee must submit a letter to the Director, Office of Hydropower Licensing, stating its intent to convey the interest and briefly describing the type of interest and location of the lands to be conveyed (a marked Exhibit G or K map may be used), the nature of the proposed use, the identity of any Federal or state agency official consulted, and any Federal or state approvals required for the proposed use. Unless the Director, within 45 days from the filing date, requires the licensee to file an application for prior approval, the licensee may convey the intended interest at the end of that period.

(e) The following additional conditions apply to any intended conveyance under paragraph (c) or (d) of this article:

(1) Before conveying the interest, the licensee shall consult with Federal and state fish and wildlife or recreation agencies, as appropriate, and the State Historic Preservation Officer.

(2) Before conveying the interest, the licensee shall determine that the proposed use of the lands to be conveyed is not inconsistent with any approved Exhibit R or approved report on recreational resources of an Exhibit E; or, if the project does not have an approved Exhibit R or approved report on recreational resources, that the lands to be conveyed do not have recreational value.

(3) The instrument of conveyance must include covenants running with the land adequate to ensure that: (i) the use of the lands conveyed shall not endanger health, create a nuisance, or otherwise be incompatible with overall project recreational use; and (ii) the grantee shall take all reasonable precautions to ensure that the construction, operation, and maintenance of structures or facilities on the conveyed lands will occur in a manner that will protect the scenic,

recreational, and environmental values of the project.

(4) The Commission reserves the right to require the licensee to take reasonable remedial action to correct any violation of the terms and conditions of this article, for the protection and enhancement of the project's scenic, recreational, and other environmental values.

(f) The conveyance of an interest in project lands under this article does not in itself change the project boundaries. The project boundaries may be changed to exclude land conveyed under this article only upon approval of revised Exhibit G or K drawings (project boundary maps) reflecting exclusion of that land. Lands conveyed under this article will be excluded from the project only upon a determination that the lands are not necessary for project purposes, such as operation and maintenance, flowage, recreation, public access, protection of environmental resources, and shoreline control, including shoreline aesthetic values. Absent extraordinary circumstances, proposals to exclude lands conveyed under this article from the project shall be consolidated for consideration when revised Exhibit G or K drawings would be filed for approval for other purposes.

(g) The authority granted to the licensee under this article shall not apply to any part of the public lands and reservations of the United States included within the project boundary.

(F) This order is issued under authority delegated to the Director and is final unless appealed under Rule 1902 to the Commission by any party within 30 days from the issuance date of this order. Filing an appeal does not stay the effective date of this order or any date specified in this order. The licensee's failure to appeal this order shall constitute acceptance of the license.
-- Footnotes --

1 41 FPC 772 (1969).

2 99 Cong. Rec. §4140 (remarks by Senator McClure, April 11, 1986).

3 New York's Hudson River Basin--Water and Related Land Resources Study--1979; New York's Hudson River Basin--Water and Related Land Resources (Level B) Study Report and Environmental Impact Statement--1979; New York Statewide Comprehensive Recreation Plan--1983.

Environmental Assessment

Division of Environmental Analysis, Office of Hydropower Licensing Federal Energy Regulatory Commission
Date: April 13, 1987 Project Name: Herkimer
FERC Project No. 9709-000

A. Application

1. Application type: Minor License; Date filed: 12/24/85

2. Applicant: Trafalgar Power, Inc.

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3. Water body: West Canada Creek; River basin: Hudson

4. Nearest city or town: Herkimer

5. County: Herkimer; State: New York

B. Purpose and Need for Action

1. Purpose: The proposed project would provide an estimated 6,125,000 kilowatthours (kWh) of electric energy per year to the Niagara Mohawk Power Corporation.

2. Need for power: The power from the project would be useful in meeting a small portion of the need for power projected for the New York area of the Northeast Power Coordinating Council (NPCC) region. From the time the project goes on-line (i.e., into commercial operation), it would be available to displace fossil-fueled electric power generation in the New York region, thus conserving nonrenewable fossil fuels and reducing the emission of noxious byproducts caused by the combustion of fossil fuels.

C. Proposed Project and Alternatives

1. Description of the proposed action: The proposed project would consist of the following facilities: (1) an existing timber crib dam consisting of: (a) a 9-foot-high, 95-foot-long section with a crest elevation of 420.0 feet mean sea level (m.s.1.); and (b) a 12-foot-high, 145-foot-long section with a crest elevation of 419.2 feet m.s.1.; (2) a reservoir with a surface area of 19 acres, a storage capacity of 163 acre-feet, and a normal water surface elevation of 420.5 feet m.s.1. with; (3) new timber flashboards; (4) a new reinforced concrete and steel powerhouse containing two generating units with a capacity of 525 kilowatts (kW), each, for a total installed capacity of 1,050 kW; (5) a new 50- foot-long, 13.2-kilovolt transmission line; and (6) appurtenant facilities. The applicant proposes to operate the project in a run-of-river mode (flow in the creek below the project equals instantaneous inflow to the reservoir).

2. Applicant's proposed mitigative measures.

a. Construction: The applicant proposes to minimize construction impacts by the following methods: (1) using cofferdams during construction of the intake structure and powerhouse; (2) performing intake area and tailrace area excavations during low-flow periods, if possible; (3) testing any materials to be excavated for toxic substances, and removing all toxic materials in compliance with New York State Department of Environmental Conservation (DEC) and Department of the Army, Buffalo District Corps of Engineers Section 404 permit requirements.

b. Operation: The applicant proposes to minimize operational and other postconstruction project impacts by the following methods: (1) operating the project in a run-of-river mode; (2) compensating for any loss of public fishing access that is a direct result of project construction and operation; and (3) providing access for shoreline fishing below the dam.

3. Federal lands affected. No.

Remarks: None.

4. Alternatives to the proposed action: Because the applicant is not an electric utility, the available alternatives are to construct or not construct the project. If the license is not issued, the project would not be constructed, and the power that would have been developed from a renewable resource would be lost and eventually would have to be provided using nonrenewable fuels.

D. Consultation and Compliance

1. Fish and wildlife consultation (Fish & Wildlife Coordination Act).

a. U.S. Fish & Wildlife Service (FWS): Yes

b. State(s): Yes

c. National Marine Fisheries Service (NMFS): Yes

2. Section 7 consultation (Endangered Species Act).

a. Listed species: None.

b. Not required.

Remarks: None.

3. Section 401 certification (Clean Water Act).

Received: 12/12/86

4. Cultural resource consultation (Historic Preservation Act).

a. Register status: Eligible or listed.

b. State Historic Preservation Officer (SHPO): Yes

c. National Park Service (NPS): Yes

d. Council: Comments requested. (date): 3/20/87.

e. Further consultation: Not required.

Remarks: The New York SHPO states that the eligible property would not be adversely affected (letter from Julia S. Stokes, New York State Historic Preservation Officer, New York State Office of Parks, Recreation, and Historic Preservation, Albany, New York, November 26, 1986).

5. Recreation consultation (Federal Power Act).

a. U.S. Owners: No

b. NPS: Yes

c. State(s): Yes

6. Wild and scenic rivers (Wild and Scenic Rivers Act).

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Status: None.

7. LWCFA lands and facilities affected (Land and Water Conservation Fund Act).

Status: None.

E. Comments

1. The following agencies and other entities provided comments on the application or filed a motion to intervene in response to the public notice dated 7/14/84.

Commenting agencies and other entities--Date of letter

Environmental Protection Agency--07/24/86

Department of the Army, Buffalo District Corps of Engineers--07/28/86 National Marine Fisheries Services--08/22/86
Department of the Interior--09/03/86

New York State Department of Environmental Conservation--10/10/86

2. The applicant responded to the comments or motion(s) to intervene by letter(s) dated 10/18/86.

F. Affected Environment

1. General description of the locale. (Sources: Federal Energy Regulatory Commission, 1983; Geological Survey, 1970; and Trafalgar Power, Inc., 1985, application, exhibit E).

a. Description of the Hudson River Basin: The Hudson River Basin lies principally in the eastern part of New York State, with small parts extending into southwestern Vermont, northwestern Massachusetts, western Connecticut, and northern New Jersey. The drainage area of the basin is 12,650 square miles, 558 of which are above the proposed project. The basin drains southward toward New York Bay, an arm of the Atlantic Ocean. The Hudson River becomes tidal at Troy, New York, just below the confluence with the Mohawk River, a principal tributary. The topography of the basin ranges from the rugged eastern portion of the Adirondack Mountains and open low mountains of the southern Adirondacks and the northern Catskill Mountains, to the flat floodplains of the Hudson and Mohawk Rivers that are bounded by up to 700-foot-high steep slopes rising to the gentle table lands of the Hudson and Mohawk River Valleys. Northern hardwoods forest is the dominant vegetation cover in most of the Hudson and Mohawk River Valleys. Northern hardwoods-spruce forest is generally dominant in higher elevations of the basin, with northeastern spruce-fir forest in the highest peak areas. Vegetation at lower elevations along the lower Hudson River Valley is predominately Appalachian oak forest.

Lands in the basin are used mostly for agricultural purposes, including cropland, pasture, woodland, and forest. Industry, agriculture, and recreation are the chief economic activities in the basin. Industry is highly diversified, producing chiefly machinery, both electrical and non-electrical; transportation equipment; primary metals; textiles and wearing apparel; and food products. Mineral deposits of greatest economic importance in the Hudson River Basin are clays and limestone which provide for the manufacture of cement and brick. Slip clays are used in several types of ceramic products and exterior glazes. Dairying is the major agricultural activity in the basin, with poultry and livestock production being second in importance. The forests of the basin support lumbering and paper-making activities. The mountains and waters of the basin provide a setting for extensive recreational use.

Since before colonial times, the Hudson and Mohawk River Valleys have provided an important lowland commercial and migrational route between the Atlantic Coast and the interior of the continent. Although this lowland route today is used primarily for highway and rail traffic, the New York State Barge Canal System, incorporating extensive sections of the Mohawk River and replacing the Erie Canal which was completed in 1825, continues to provide a navigable link between tidewater and the Great Lakes, and is also used extensively for recreation.

There are 215 potential conventional hydroelectric sites within the Hudson River Basin. Of these, 52 have developed hydroelectric facilities, and 12 have hydroelectric projects under construction.

2. Resources unaffected by the proposed action: The staff concludes that there would be no relevant or material adverse environmental impacts on socioeconomics because all the new facilities would be constructed at the existing dam and the abandoned canal intake area.

3. Descriptions of the resources in the project impact area. (Source: Trafalgar Power, Inc., 1985, application, exhibit E, unless indicated otherwise.)

a. Geology and soils: The project area has shale bedrock overlain by glacial till and alluvial deposits which, in the proposed development area, have been previously disturbed during construction of the existing dam and canal, and the railroad (abandoned) and highway (New York State Route 28) that

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parallel the lower right-hand (west) bank of the reservoir.

b. Streamflow:

low flow: 600 cfs; flow parameter: flow exceeded 90% of the time high flow: 1,920 cfs; flow parameter: flow exceeded 10% of the time
average flow: 1,120 cfs; flow parameter: flow exceeded 50% of the time.

c. Water quality: West Canada Creek water quality is considered good. Water samples collected from 1970 to 1973 indicate that dissolved oxygen (D0) levels are at or above saturation levels, water temperatures range from 1. to 27 degrees Celsius, and pH values range from 7.2 to 9.3.

d. Fisheries:

Anadromous: Absent.

Resident: Present.

Species found in West Canada Creek include: walleye, largemouth bass, smallmouth bass, brown trout, rainbow trout, and brook trout.

e. Vegetation:

Cover Dominant species

deciduous forest--sugar and red maples, cherry, birch, poplar, goldenrod, wild carrot, nightshade, and bluestem

shrubland--dogwood, poplar, hawthorn, crabapple, rose, cranberry, vibernum, and honeysuckle wetland--rushes, spikerush, sedges, rice cutgrass, and cattail

f. Wildlife: Wildlife species inhabiting the project area include white-tailed deer, cottontail rabbit, raccoon, woodchuck, skunk, chipmunk, and songbirds.

g. Cultural:

There is one property that is listed on or eligible for listing on the National Register of Historic Places in the area of the project's potential environmental impact.

Description: The existing hydraulic power canal was constructed in the nineteenth century to serve a paper mill. The structure appears to retain cut-stone channel walls typical of hydraulic engineering of the period.

h. Visual quality: The proposed project area has a very beautiful, natural character with abundant deciduous vegetation, hills, and flowing water.

i. Recreation: The primary recreational activity is sport fishing. Most of the access to this heavily fished stretch of West Canada Creek is from the west bank in the area where the proposed powerhouse would be located.

j. Land use: Project land to the east of West Canada Creek is used for agriculture. Paralleling the west wide of the creek is an abandoned railroad bed and a highway.

G. Environmental Issues and Proposed Resolutions

Mitigative measures recommended by the staff are in addition to those proposed by the applicant, Section C(2), and any conditions identified in Section C(3). There are 8 issues addressed below.

1. Erosion and Sediment: Project area soils and unconsolidated deposits would be subject to erosion and sediment losses to the creek due to excavation, removal of accumulated sediment and other creekbed material, alteration of surface drainage, and other land-disturbing activities during site access, installation and removal of cofferdams, construction of the new hydroelectric and recreational facilities, and disposal of excess spoil materials.

The DEC is concerned about stabilizing and maintaining project areas that would be disturbed or utilized to accommodate the construction and operation of the project. To facilitate the DEC's on-going review for applicable state permits, the DEC recommends that the license require that the DEC be provided with four sets of finalized site/construction plans that fully describe the project construction activities. The applicant responds that it would submit this information.

The applicant proposes to use cofferdams and to perform intake and tailrace area excavations during low-flow periods, if possible (see section C.2.a). Careful planning and implementation of the DEC's and the applicant's proposed measures, and other appropriate erosion, slope stability, and sediment control measures, would ensure that project-related erosion and sediment impacts are minimized. The applicant, after consulting with appropriate resource agencies and prior to commencing project land-clearing and spoil-producing activities, should prepare a comprehensive plan to control erosion, slope stability, and sedimentation at the project.

2. Operational mode of the project: The DEC and Interior recommend that the project be operated in a run-of-river mode to protect the fish and wildlife resources of West Canada Creek. In operating the project in this manner, these agencies further recommend that this reservoir elevation be maintained at or

above the crest elevation of the dam, or flash boards when in use, and that flows not available for power generation be released over the spillway. The

applicant concurs with the agencies'

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recommendations and has already proposed a run-of-river mode of operation (see section C.2.b).

To minimize impacts to the flow-dependent resources of the creek downstream of the project and the fish and wildlife resources of the project reservoir, the licensee should operate the project in a run-of-river mode. In operating the project in this mode, the licensee should minimize fluctuations of the project reservoir and ensure that the reservoir elevation is maintained at the crest elevation of the project dam, or the flashboards when in use.

3. Toxic substance testing and disposal: Clay- and silt-sized sediments have the potential to retain heavy metals and toxic organic materials, and disturbance of these sediments during project construction could result in the release of these substances to the water column. The DEC recommends that all material proposed for dredging from West Canada Creek should: (1) be analyzed for heavy metals or other toxic substances and the results sent to the DEC; and (2) be disposed in a site approved by the DEC. The applicant concurs with the DEC's recommendation. The applicant has also proposed testing any materials to be excavated for toxic substances and removing all toxic materials in compliance with DEC permit requirements (see section C.2.a). The licensee's adherence to the conditions stipulated in the 401 water quality certificate would minimize the releases of toxic sediments to the water column and minimize impacts to other environmental resources associated with disposal of the sediments.

4. Fish entrainment mortality: Fish moving downstream and entering the project intake would be subject to turbine- induced mortality and injury. The DEC recommends installation of a trashrack at the project intake to minimize fish entrainment mortality. Specifically, the DEC recommends the installation of a trashrack with a slot spacing not to exceed 2 inches and that the rack be placed at a 45-degree angle to the direction of flow. The applicant agrees to install a trashrack in accordance with the design specified by the DEC.

Providing a trashrack at the project intake, as recommended by the DEC, would reduce turbine mortality and protect the fish resources of West Canada Creek. The licensee should install a trashrack at the project intake designed to minimize turbine-induced mortality.

5. Conservation and development of fish and wildlife: Interior recommends that the applicant provide for the conservation and development of fish and wildlife resources by modifying project structures and operations. In addition, Interior and the DEC recommend that the applicant permit the United States or its designated agency use of the applicant's interests in lands, reservoirs, waterways, and project works to construct fish and wildlife facilities. Further, the DEC specifically recommends that the DEC be reserved the right to recommend construction of fish passage facilities in the future. Any license issued would contain standard terms and conditions, allowing agencies to petition the Commission to effect changes in project structures and operations for the conservation of fish and wildlife resources.

6. Potential adverse effects on characteristics of the existing historic structures that enable the structures to satisfy the National Register criteria of eligibility: The Commission staff and the New York SHPO have determined that the existing historic structures possess characteristics that qualify the existing structures for the National Register of Historic Places by enabling the structures to satisfy the National Register criteria of eligibility. The staff determines, on the basis of the information submitted by the applicant and the recommendations of the SHPO, that the proposed project would affect these characteristics of the existing structures, but not adversely. On March 20, 1987, the Advisory Council on Historic Preservation, pursuant to Section 106, National Historic Preservation Act, was asked to concur with this determination. The determination of no adverse effect is conditioned upon the licensee restoring and rehabilitating the existing structures in a manner that is sympathetic with the characteristics that qualify the existing

historic structures for the National Register. After consulting with the SHPO, but before beginning construction activities at the existing historic structures, the licensee should file with the Commission a plan for restoring, modifying, and rehabilitating the existing historic structures. The plan should be filed with the SHPO's comments.

7. Archeological and historic properties identified during land-clearing and land-disturbing activities, or affected by changes in the design or location of project facilities: Eligible archeological and historic properties could be adversely affected either because their presence in the project area was unknown prior to commencement of construction, or because of changes in the design or location of project facilities. Therefore, the licensee, before commencing land- clearing or land-disturbing activities within the project boundaries, other than those for which SHPO comments have been received, and before resuming such activities in the vicinity of properties

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discovered during construction, should file a plan, including a schedule, for the necessary studies and the SHPO's written comments concerning the plan.

8. Fisherman access to the project area: The DEC recommends that the applicant: (1) construct a fisherman access on the west side of the creek to include an 8- to 10-vehicle parking area and stairs and a footpath from the parking area to the tailrace; (2) compensate for any loss of access to the railroad bed that is a direct result of project construction and operation; and (3) maintain fisherman access to the project area. Interior states that the proposed fisherman access and parking area should meet the present recreational needs in the project area and that the facilities should be constructed within 12 months from the date of issuance of the license. The applicant agrees with the DEC's recommendation and requests a meeting with the DEC to coordinate plans for public access to the project area. Constructing a parking area and footpath to the tailwater area, compensating for lost fisherman access due to project construction and operation, and maintaining access to the project impoundment and downstream area would provide for recreational needs in the project area. The licensee should construct and maintain the proposed fisherman access facilities and file a plan describing methods to ensure fisherman access to the project area. Because of the need to coordinate construction of the project facilities, the staff recommends that the licensee have until the project commences operation to complete the recreational facilities.

H. Environmental Impacts

1. Assessment of adverse and beneficial impacts expected from the project as proposed by the applicant (P); the proposed project with the staff's recommended mitigation (Ps) [Section G]; and any other alternative considered (A).*

a. Geology/Soils--P: 1AS

b. Streamflow--P: 0

c. Water quality: Temperature--P: 0; Dissolved oxygen--P: 0; Turbidity and sedimentation--P: 1AS

d. Fisheries: Anadromous--P: 0; Resident--P: 2AL; Ps: 1AL

Remarks: d. Designing the intake in accordance with DEC recommendations would reduce fish mortality for adult and juvenile fish.

e. Vegetation--P: 1AL

Remarks: e. The proposed installation of 1.3-foot-high flashboards would cause the inundation of 1.4 acres of vegetative cover, and would have a minor impact on adjacent landowners.

f. Wildlife--P: 1AS

g. Cultural: Archeology--P: 0; History--P: 1AL; Ps: 1BL

Remarks: g. Sympathetic rehabilitation of the historic hydraulic canal would help to ensure its long-term structural stability.

h. Visual quality--P: 0

i. Recreation--P: 1BL

Remarks: i. Construction of a parking area and footpath to West Canada Creek would enhance opportunity for sport fishing.

j. Land use--P: 1AL

Remarks: e. The proposed installation of 1.3-foot-high flashboards would cause the inundation of 1.4 acres of vegetative cover, and would have a minor impact on adjacent landowners.

* The assessment reflects the adoption of any Federal land management agency's conditions, in addition to the applicant's proposed mitigation. Assessment symbols indicate the following impact levels:

0 = No impact; 1 = Minor impact; 2 = Moderate impact; 3 = Major impact; A = Adverse; B = Beneficial; L = Long-term impact; S = Short-term impact.

2. Impacts of the no-action alternative: Under the no-action alternative, there would be no construction of project facilities or changes to the existing physical, biological, or cultural components of

the area. Electrical power that would be generated by the proposed hydroelectric project would have to be generated from other available sources or offset by conservation measures.

3. Recommended alternative (including proposed, required, and recommended mitigative measures): Proposed project.

4. Reason for selecting the preferred alternative: The proposed project would provide electrical power without significantly affecting the environmental conditions of the project area.

I. Unavoidable Adverse Environmental Impacts of the Recommended Alternative

Project construction would cause minor, short-term increases in erosion, sedimentation, and turbidity. The new flashboards would cause inundation of 1.4 acres of vegetation and would cause a minor impact on adjacent landowners. Project operation would result in minor, long-term fish entrainment mortality.

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J. Conclusion

Finding of No Significant Impact. Approval of the recommended alternative [H(3)] would not constitute a major Federal action significantly affecting the quality of the human environment; therefore, an environmental impact statement (EIS) will not be prepared.

K. Literature Cited

1. Federal Energy Regulatory Commission. 1983. Planning status report of the Hudson River Basin. Washington, D.C.

2. Geological Survey. 1970. The national atlas of the United States of America. Washington, D.C. 417 pp.

3. Trafalgar Power, Inc. 1985. Application for license for the Herkimer Hydroelectric Project, a minor water power project of 1.05 megawatts, FERC Project No. 9709, New York. December 24, 1985.

4. Trafalgar Power, Inc. 1987. Additional information for the application for license for the Herkimer Hydroelectric Project, a minor water power project of 1.05 megawatts, FERC Project No. 9709, New York. January 2, 1987.

L. List of Preparers (Name--Position title) Peter A. Leitzke--Geologist(Coordinator) James T. Griffin--Archeologist
Ann F. Miles--Environmental Protection Specialist Gary Nelson--Ecologist
Mary Nowak Writer-Editor Ronald Spath--Civil Engineer
David Starkie--Landscape Architect Martin Thorpe--Electrical Engineer Safety and Design Assessment Herkimer Hydroelectric Project
FERC Project No. 9709-000 --New York

Dam Safety

The Herkimer dam was constructed around 1835 by International Paper Company to provide process water for the company's paper mill operation. At normal pool the dam impounds 125 acre-feet of storage and provides approximately 10 feet of head.

The project was inspected by the Commission's New York Regional Office on February 25, 1986. The inspection report states that the dam and its abutments show no apparent misalignment, displacement, or other indication of structural distress. Based on the limited storage, low dam height, and height of the river banks in the area immediately downstream of the proposed project, the FERC Regional Office classified the dam as having a low hazard potential. Failure of project structures would not cause downstream loss of life or significant property damage.

The proposed additional structures will be safe if constructed in accordance with sound engineering practice.

Project Design

The existing Herkimer dam consists of two stone-filled timber crib sections that span West Canada Creek in an east- west direction. The combined length of the sections is approximately 240 feet. Flashboards would be added to the spillway to raise the crest to elevation 420.5 feet m.s.l.

The applicant proposes to construct a 58.5-foot-long by 58-foot-wide powerhouse on the west bank of the river near the existing canal intake structure. Flow from the turbines would be discharged directly into West Canada Creek through a short tailrace channel.

Economic Feasibility

Based on 1985 dollars, the applicant estimates that the project would cost $4,000,000. The cost of the proposed work has been checked by staff and found to be reasonable.

The Herkimer project will be feasible as long as its levelized cost is less than the cost of energy from any utility in the area. Staff has identified the cost of alternative energy in the region as high as 125 mills per kWh. Since the cost of the hydroelectric project is estimated to be 90 mills per kWh, staff is reasonably confident that there will be a market for power at a price sufficient to support the project's construction and operation.

Water Resource Planning

The proposed project would generate power by utilizing flow currently discharged over the Herkimer spillway. The powerhouse would be capable of operating under flows ranging from 166 to 1,992 cfs, and would generate approximately 6,125,000 kWh at a plant factor of 67 percent.

Agencies reviewing the proposed project recommended that no minimum release would be necessary when the project is operating. All river flows insufficient for generation purposes or in excess of plant capacity would be spilled over the dam.

Streamflow would exceed the maximum hydraulic capacity of the powerplant approximately 18 percent of the time.
Installation of additional capacity would not be economically feasible. It is concluded that

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the proposed 1,050 kW makes good use of the flow and head at the site.

State and Federal agency comments do not impact the safety or economic feasibility of the project. No specific comments or recommendations were made addressing flood control, navigation, water supply, or irrigation requirements in the basin.

The Commission's Hudson River Basin Planning Status Report includes no hydroelectric projects, either proposed or constructed on West Canada Creek that this project would impact and the project would not conflict with any pending application for preliminary permit, exemption or license, except for a preliminary permit application (FERC Project No. 9254) filed by Herkimer County Associates.

In summary, our study shows that the proposed Herkimer project adequately develops the hydropower potential at the site and would not conflict with any existing or planned water resource development in the basin.

Exhibits

The following portions of Exhibit A and the following Exhibit F drawings filed as part of the license application on

December 24, 1985, and as supplemental information on May 27, 1986, conform to the Commission's rules and regulations and should be included in the license.

Exhibit A sections: (i) generating units

(ii) proposed hydraulic turbines

(viii)(c) switchyard and transmission facilities

Exhibit		FERC No.		Description
F	1	9709	1	Plan View--existing
F	2	9709	2	Elevation & Sections--existing
F	3	9709	3	Plan & Sections Proposed

F 4
9709--4
Powerhouse--Plan &

1 41 FPC 772

(1969). Section

2 99 Cong. Rec. §4140 (remarks by Senator McClure, April 11, 1986).

3 New York's Hudson River Basin--Water and Related Land Resources Study--1979; New York's Hudson River Basin--Water and Related Land Resources (Level B) Study Report and Environmental Impact Statement--1979; New York Statewide Comprehensive Recreation Plan--1983.

http://prod.resource.cch.com/resource/scion/document/default/(%40%40FERC-FEG-02%2039FERCP62077PAGE63221)20200624102247537DOC27342?cfu=Legal&cpid=WKUS-Legal-
Cheetah&uAppCtx=cheetah

1 FERC - 75 FERC, 48 FERC ¶62,105, Trafalgar Power, Inc., Project No. 9709-007 - New York , FERC (Federal Energy Regulatory Commission), (Aug. 10, 1989)
Trafalgar Power, Inc., Project No. 9709-007 - New York [63,100]
[¶62,105]

Trafalgar Power, Inc., Project No. 9709-007 - New York Order Amending License and Revising Annual Charges (Issued August 10, 1989)
J. Mark Robinson, Director, Division of Project Compliance and Administration.

On June 30, 1988, Trafalgar Power, Inc., licensee for the Herkimer Hydroelectric Project, FERC Project No. 9709, filed an application for amendment of its license (39 FERC ¶62,077). The licensee proposes to revise the authorized generating capacity from 1,050 kW to 1,680 kW to reflect the installed generating capacity. This increase will cause the project to be redefined as a major project rather than a minor project, and therefore subject to the articles set forth in Form L-4 attached hereto [reported at 54 FPC 1824].

The licensee states that it purchased four readily available generators, each having a nameplate rating of 400 kW, to meet Niagara Mohawk's deadlines by December 31, 1987. The licensee also installed an 80 kW turbine at the base of the dam. Although the project's existing installed capacity is 1,680 kW, the licensee has not operated above the 1,050 kW capacity the license authorizes.

In addition to the modification to the installed capacity, the licensee modified the facility design to prevent the demolition of a historically significant wall near the powerhouse. A bypass reach now exists as a result of this modification. To protect aquatic resources in this reach, the New York State Department of Environmental Conservation (DEC), in a letter dated June 10, 1988, recommends that the licensee maintain a 160-cubic-foot-per second (cfs) minimum flow through the 80 kW turbine at the base of the dam. A minimum flow of 160 cfs would protect aquatic resources in the bypass reach. The licensee

has agreed to maintain the minimum flow through the 80 kW turbine as part of its amendment. Article 409 included herein, requires the licensee to maintain the recommended minimum flow.

In addition, the licensee should develop a contingency plan for maintaining the 160-cfs minimum flow during those periods when flows to the 80 kW turbine are interrupted due to turbine maintenance. Article 409 also requires the licensee to release the required minimum flow through alternate means which have been coordinated with the DEC. The licensee should also develop a plan to monitor and record the minimum flow to ensure that the required flow is precisely maintained. Article 410 requires the licensee to file such plan with the Commission.

After considering the information in the amendment application, comments from DEC, and the proposed mitigative measures, the Director finds that the operation of this project will not result in any additional adverse environmental impacts other than those identified during processing the original application.

The Director orders:

(A) The license for the Herkimer Hydroelectric Project, FERC Project No. 9709, is amended as provided in this order, effective the first day of the month in which this order is issued.

(B) Ordering Paragraph (B)(2) of the license is revised in part to read as follows:

"...(5) a reinforced concrete and steel powerhouse containing four generating units with a capacity of 400 kW each and an 80 kW minimum flow generator at the base of the dam for a total installed capacity of 1,680 kW;..."

(C) Ordering Paragraph (E) of the license is revised in part to read as follows:

"(E) This license is subject to the articles set forth in Form L-4, except Article 20 (revised October, 1975) [reported at 54 FPC 1876], entitled "Terms and Conditions of License for Unconstructed Major Project Affecting Navigable Waters of the United States." The licensee is also subject to the following additional articles:..."

(D) Ordering Paragraph (E) of the license is further revised to add the following articles:

Article 409. The licensee shall discharge from the bypass flow turbine a minimum flow of 160 cubic feet per second, or inflow to the reservoir, whichever is less to protect and enhance aquatic resources in West Canada Creek. This flow may be modified if required by operating emergencies beyond the licensee's control, and for short periods upon mutual agreement between the licensee and

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the New York State Department of Environmental Conservation. If, for some reason, the licensee must stop the flow of water through the bypass flow turbine, the licensee shall provide an alternate means of releasing the required minimum flow.

Article 410. The licensee, after consulting with the New York State Department of Environmental Conservation (DEC), shall file, for Commission approval, a plan to monitor and record the minimum

flow required by Article 409 of this order. The licensee shall file this plan with the Commission within 90 days of the date of this order. The filing shall include comments from DEC regarding the plan. The Commission reserves the right to modify the flow monitoring plan.

(E) The articles set forth in Form L-14 (October 1975) entitled "Terms and Conditions of License for Unconstructed Minor Project Affecting Navigable Waters," included in the Order Issuing License, are removed from the license.

(F) Article 201 of the license is revised to read as follows:

"Article 201. The licensee shall pay the United States the following annual charge, effective the first day of the month in which this license is issued.

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized installed capacity for that purpose is 2,240 horsepower."

(G) Ordering Paragraph (D) of the license is hereby removed from the license.

(H) This order is issued under authority delegated to the Director and is final unless appealed to the Commission under Rule 1902 within 30 days from the date of this order. Filing an appeal does not stay the effective date of this order or any date specified in this order. Failure to file a petition appealing this order to the Commission shall constitute acceptance of this order.

http://prod.resource.cch.com/resource/scion/document/default/(%40%40FERC-FEG-02%2048FERCP62105PAGE63100)20200624102130851DOC19556?cfu=Legal&cpid=WKUS-Legal-Cheetah&uAppCtx=cheetah

76 FERC - 101 FERC, 91 FERC ¶62,175, Trafalgar Power, Inc., Project No. 9709-050, (June 12, 2000), (Jun. 12, 2000)

76 FERC - 101 FERC
Trafalgar Power, Inc., Project No. 9709-050 [64,297]
[¶62,175]

Trafalgar Power, Inc., Project No. 9709-050

Order Amending License and Revising Annual Charges

(Issued June 12, 2000)

Fred E. Springer, Director, Division of Hydropower Administration and Compliance.

On April 5, 1999, Algonquin Power System (New York) Inc. (APSNY), operating manager on behalf of the licensee-- Trafalgar Power, Inc., requested an amendment of the license to reflect the actual installed capacity of the Herkimer Project. The project is located on the West Canada Creek, a tributary to the Mohawk River, in Herkimer County, New York.

Background

The Herkimer Project was licensed in 1987. [1] In 1989, the license was amended to allow operation of a powerhouse containing four generating units with a capacity of 400 kW each and one 80 kW unit at the base of the dam, for a total capacity of 1,680 kW. [2] The order added Article 409 to the license, requiring a minimum flow of 160 cfs in the bypass reach. The 80 kW unit was designated as the minimum flow unit. Article 410 was also added to the license, which required the filing of a plan to monitor and record the minimum flow as required by Article 409 after consulting with the New York State Department of Environmental Conservation (DEC).

Review

In an "Order on Rehearing" in 1997, [3] Article 409 was revised. The order recognized the licensee was having trouble meeting the required

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minimum flow by passing it solely through the minimum flow unit. The order required the licensee to develop and file a plan to pass the 160 cfs minimum flow. Subsequently, licensee devised a plan to pass 130 cfs flow through the minimum flow turbine and 30 cfs from a slide gate or spillway.

While operating the unit to meet the requirements by Article 409, APSNY noticed the unit has a nameplate rating of 110 kW, instead of 80 kW. The licensee's filing indicates when the unit is operational it passes the required 130 cfs. This order amends the license to reflect the as-built capacity of 110 kW for the unit.

The Director orders:

(A) The license for the Herkimer Project, FERC No. 9709, is amended as provided by this order, effective the first day

of the month in which this order is issued.

(B) Ordering Paragraph (B)(2) of the license is revised in part to read as follows:

". . . (5) a reinforced concrete and steel powerhouse containing four generating units with a capacity of 400 kW each and a 110 kW minimum flow generator at the base of the dam for a total installed capacity of 1, 710 kW; . . ."

(C) Article 201 of the license is revised to read as follows:

"Article 201. The licensee shall pay the United States the following annual charge, effective January 1, 1989, the date the unit began operation.

For the purpose of reimbursing the United States for the cost of administration of Part I of the Act, a reasonable amount as determined in accordance with the provisions of the Commission's regulations in effect from time to time. The authorized capacity for that purpose is 1,710 kW."

(D) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 C.F.R. §385.713 .
-- Footnotes --

[64,297]

Footnotes
1 39 FERC ¶62,077 , April 22, 1987.
2 48 FERC ¶62,105 , August 10, 1989.
3 78 FERC ¶61,169 , February 19, 1997.

http://prod.resource.cch.com/resource/scion/document/default/(%40%40FERC-FEG-03%2091FERCP62175.64297)20200624101853484DOC7224?cfu=Legal&cpid=WKUS-Legal-Cheetah&uAppCtx=cheetah

166 FERC to 186 FERC, ECOsponsible, LLC, Project No. 15032-000, 173 FERC ¶62,042, FERC (Federal Energy Regulatory Commission), (Oct. 23, 2020)
166 FERC to 186 FERC
Project No. 15032-000
166 FERC to 186 FERC ¶62,042

ECOsponsible, LLC, Project No. 15032-000
Order Denying Preliminary Permit Application October 23, 2020
Vince Yearick, Director, Division of Hydropower Licensing.

1. On May 6, 2020, ECOsponsible, LLC (ECOsponsible) filed an application for a preliminary permit, pursuant to section 4(f) of the Federal Power Act (FPA), [1] to study the feasibility of the proposed Springville Dam Hydro Project No. 15032 (Springville Dam Hydro Project or project). Springville Dam is located on Cattaraugus Creek in the town of Concord in Erie County, New York.
I. Project Proposal

2. The proposed Springville Dam Hydro Project would redevelop an abandoned project and would consist of the following: (1) an existing 338-foot-long and 40-foot-high concrete gravity dam with a 182-foot-long spillway; (2) an existing impoundment; (3) an existing powerhouse to be rebuilt and to include two new identical turbine- generator units with an installed capacity of 500 kilowatts each; (4) a new 4.8- to 13.2-kilovolt, 500-foot-long transmission line extending from the powerhouse to a grid interconnection

point; and (5) appurtenant facilities. The proposed project would have an annual generation of 6.5 gigawatt- hours.

II. Background

3. The Commission issued public notice of ECOsponsible's permit application on June 23, 2020, establishing a deadline of August 24, 2020, for filing comments, interventions, and competing applications. Notice of the application was published in the Federal Register on June 29, 2020. [2]

4. Comments were filed by the U.S. Environmental Protection Agency (EPA), the County of Erie, Pennsylvania (Erie), and the U.S. Department of the Interior (Interior). No competing applications were filed. The comments on the application have been fully considered in determining whether to issue a permit for the project and are discussed below.

5. Interior expressed concern that the proposed project could have an adverse effect on existing fish and wildlife

resources and their habitats in Cattaraugus Creek and its surrounding areas, including federally threatened and endangered species. EPA and Interior mentioned that Cattaraugus Creek is listed on the National Park Service's Nationwide Rivers Inventory (NRI) as a candidate for being listed in the National Wild and Scenic River System and Interior noted that Springville Dam is located on the reach that is identified as having “outstandingly remarkable values” for geology and recreation. Commenters also questioned whether the proposed project would be compatible with a fish restoration project currently underway by the U.S. Army Corps of Engineers, effect the listing status of the Springville Dam in the National Register of Historic Places, and be consistent with the Seneca Nation's goals for Cattaraugus Creek.

6. Erie commented that several dam safety and maintenance items must be addressed prior to returning the project to hydropower use, including modifications to the dam structure, rehabilitation of the penstock and penstock valves, and a geotechnical assessment of the western creek bank. It pointed out that regular dredging of the impoundment would be needed due to extensive sedimentation. Erie stated that ECOsponsible must consider these dam safety issues, and recurring maintenance costs associated with the project. Erie also expressed concerns about ECOsponsible's ability to maintain the proposed project in compliance with future license requirements and the Commission's regulations based on compliance issues in other hydropower projects, including the Herkimer Project No. 9709 (Herkimer Project), that it owns and operates. [3]

III. Discussion

7. Section 4(f) of the FPA authorizes the Commission to issue preliminary permits for the purpose of enabling prospective applicants for a hydropower license to secure the data and perform the acts required by section 9 of the FPA, [4] which in turn sets forth the material that must accompany an application for a license. A permit is issued to allow the permit holder to conduct investigations and studies to determine

the feasibility of the proposed project and to prepare a license application, and it does not grant land-disturbing or other property rights. [5] The Commission is not
p. 64,085

required to grant a preliminary permit, so long as it articulates a rational basis for not doing so. [6]

8. The Commission may consider the applicant's compliance history in deciding whether to issue a permit. [7] In Mt. Hope Waterpower Project LP, [8] the Commission denied an application for a preliminary permit where the applicant had not paid deferred annual charges under its license for another project. The Commission reasoned that failure to pay any of the accrued annual charges demonstrated that Mt. Hope lacked the fitness necessary to comply with regulatory requirements. In Appalachian Rivers Resource Enhancement, LLC, [9] the Commission denied an application for a preliminary permit where the applicant had violated a compliance order and failed to pay an assessed civil penalty that was subsequently referred to the Department of Treasury. Similarly, in Energie Group LLC,
[10] a preliminary permit was denied based on a poor compliance record where the applicant had an extensive record of violating the FPA, implementing regulations, conditions of licenses, exemptions, and permits, and compliance orders.

9. Here, ECOsponsible has demonstrated a lack of due diligence in meeting its license requirements for the Herkimer Project. Specifically, by letter issued May 29, 2020, Commission staff notified ECOsponsible that it had failed to adequately respond to prior requirements and directives from the Commission's Division of Dam Safety and Inspection - New York Regional Office. [11] The May 29, 2020 letter noted that the license for the project required ECOsponsible to file a plan and schedule to restore operation of the project, and that over the past several years, both the Regional Engineer and the Commission's Division of Hydropower Administration and Compliance had issued

seven letters requiring ECOsponsible to file various plans and schedules to address needed repairs and to restore project operation. The letter went on to note that while ECOsponsible submitted six different plans, all were deficient. The May 29, 2020 letter required ECOsponsible to submit within 30 days: (1) an updated Public Safety Plan; (2) a revised Dam Safety Surveillance Monitoring Plan; (3) a Dam Safety Surveillance Monitoring Report for 2019; (4) a revised plan and schedule to address needed repairs identified by the Regional Engineer to restore project operation; and (5) an Erosion Control Plan. To date, none of the information has been filed with the Commission. Commission staff have also reviewed ECOsponsible's record regarding its payment of annual charges and found that ECOsponsible has three years of outstanding bills. Given ECOsponsible's poor compliance history for the Herkimer Project, ECOsponsible's preliminary permit application is denied.
The Director orders:

(A) The preliminary permit application filed by ECOsponsible, LLC on May 6, 2020, for the Springville Dam Hydro Project No. 15032 is denied.

(B) This order is issued under authority delegated to the Director and constitutes final agency action. Any party may file a request for rehearing of this order within 30 days of the date of its issuance, as provided in section 313(a) of the Federal Power Act, 16 U.S.C. §825 l, and section 385.713 of the Commission's regulations, 18 C.F.R. §385.713 (2020).

Footnotes
1 16 U.S.C. §797(f) (2018).
2 85 Fed. Reg. 38,885 (June 29, 2020).
3 Erie's August 21, 2020 Comments at 2.
4 16 U.S.C. §802 (2018).
5 A permit holder can only enter lands it does not own with the permission of the landholder, and is required to obtain whatever environmental permits federal, state, and local authorities may require before conducting any studies. See, e.g., Three Mile Falls Hydro, LLC, 102 FERC ¶61,301 at P 6 (2003); see also Town of Summersville, W.Va. v. FERC, 780 F.2d 1034 (D.C. Cir. 1986) (discussing the nature of preliminary permits).
6 See, e.g., Rivertec Partners, LLC , 157 FERC ¶61,207 (2016); Owyhee Hydro, LLC, 154 FERC ¶61,210 (2016); Wyco Power and Water, Inc., 139 FERC ¶61,124 (2012) (citing Kamargo Corp. v. FERC, 852 F.2d 1392, 1398 (D.C. Cir. 1988)).
7 Energie Grp., LLC v. FERC, 511 F.3d 161, 164 (D.C. Cir. 2007) (finding the Commission may consider the fitness of the applicant in deciding whether to issue a permit); Appalachian Rivers Res. Enhancement, LLC, 113 FERC
¶62,100 (2005) (denying permit application based on applicant's unsatisfactory compliance record).
8 123 FERC ¶61,096 (2008).
9 114 FERC ¶61,145 (2006).
10 109 FERC ¶62,225 (2004).
11 Herkimer Project Non-Compliance with Regional Engineer Directives, P-9709-066 (May 29, 2020).

http://prod.resource.cch.com/resource/scion/document/default/(%40%40FERC-FEG-04%20FED-FERCODO62042)b15f5b2e7dce100088c6000d3a8b5a8e054?cfu=Legal&cpid=WKUS-Legal-Cheetah&uAppCtx=cheetah

APPENDIX B

Historic Register Sites

Herkimer Home – Fort Herkimer Church – Indian Castle Church
LISTING OF NATIONAL REGISTER OF HISTORICAL PLACES IN HERKIMER, NY

Village of Herkimer
Herkimer County Court House 1/14/1972
Herkimer County Historical Society 4/13/1972
Herkimer County 1834 Jail 1/14/1972
Oak Hill Cemetery 5/2/2013
The Reformed Church of Herkimer 3/16/1972
U.S. Post Office 5/11/1989

Town of Herkimer
Palatine German Frame House (Rt. 5) 4/15/2004
Village of Ilion
Remington Stables 10/29/1976
First United Methodist Church 7/5/2003
Thomas Richardson House 9/7/1984
U.S. Post Office 5/11/1989

HISTORIC DISTRICTS IN HERKIMER COUNTY
Holy Trinity Monastery District 2009
Little Falls Historic District 2012
Mohawk Upper Castle Historic District 1993
Russian Corners Historic District 1996
South Ann Street-Mill Street Historic District 2008
Thendara Historic District 2010

PENDING
New York State Barge Canal Historic District
https://herkimercountyhistory.org/historic-register-sites/

APPENDIX C

US Census QuickFacts Mar-25-2022

Fact	Herkimer County, New York	Fact Note
Population Estimates, July 1 2021	59,937	
Population estimates base, April 1, 2020	60,139	
Population, percent change - April 1, 2020 (est base) to July 1, 2021	-0.3%	
Population, Census, April 1, 2020	60,139	
Population, Census, April 1, 2010	64,519	
Persons under 5 years, percent	5.0%	
Persons under 18 years, percent	20.4%	
Persons 65 years and over, percent	21.2%	
Female persons, percent	50.4%	
White alone, percent	96.0%	
Black or African American alone, percent	1.5%	(a)
American Indian and Alaska Native alone, percent	0.3%	(a)
Asian alone, percent	0.6%	(a)
Native Hawaiian and Other Pacific Islander alone, percent	n/a	(a)
Two or More Races, percent	1.5%	
Hispanic or Latino, percent	2.3%	(b)
White alone, not Hispanic or Latino, percent	94.2%	
Veterans, 2016-2020	4,342	
Foreign born persons, percent, 2016-2020	2.5%	
Housing units, July 1, 2019, (V2019)	33,909	
Owner-occupied housing unit rate, 2016-2020	74.3%	
Median value of owner-occupied housing units, 2016-2020	$106,600.00	
Median selected monthly owner costs -with a mortgage, 2016-2020	$1,141.00	
Median selected monthly owner costs -without a mortgage, 2016-2020	$471.00	
Median gross rent, 2016-2020	$680.00	
Households, 2016-2020	25,093	
Persons per household, 2016-2020	2.41	
High school graduate or higher, % of persons age 25 years+, 2016-2020	90.6%	
Bachelor's degree or higher, percent of persons age 25 years+, 2016-2020	21.1%	
In civilian labor force, total, % of population age 16 years+, 2016-2020	60.9%	
In civilian labor force, female, % of population age 16 years+, 2016-2020	57.5%	
Median household income (in 2020 dollars), 2016-2020	$58,438.00	
Per capita income in past 12 months (in 2020 dollars), 2016-2020	$29,540.00	
Persons in poverty, percent	12.1%	
Population per square mile, 2010	45.7	
Land area in square miles, 2010	1,411.47	
FIPS Code	36043	
NOTE: FIPS Code values are enclosed in quotes to ensure leading zeros		

(a) Includes persons reporting only one race
(b) Hispanics may be of any race, so also are included in applicable race categories
(c) Either no or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest or upper interval of an open ended distribution.

EXHIBIT D

West Canada Creek Project (P-2701)
Final License Application - Exhibit E

EXHIBIT E

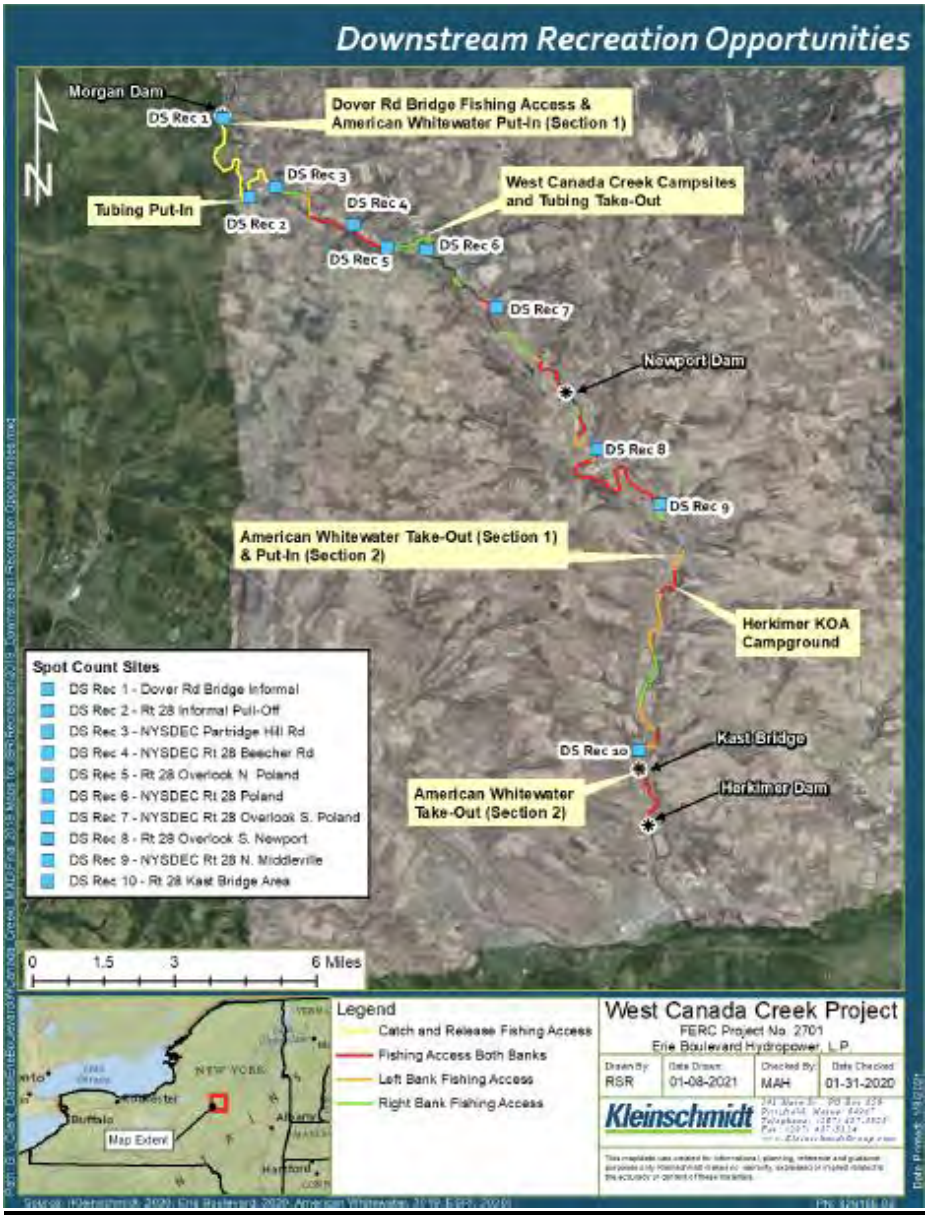
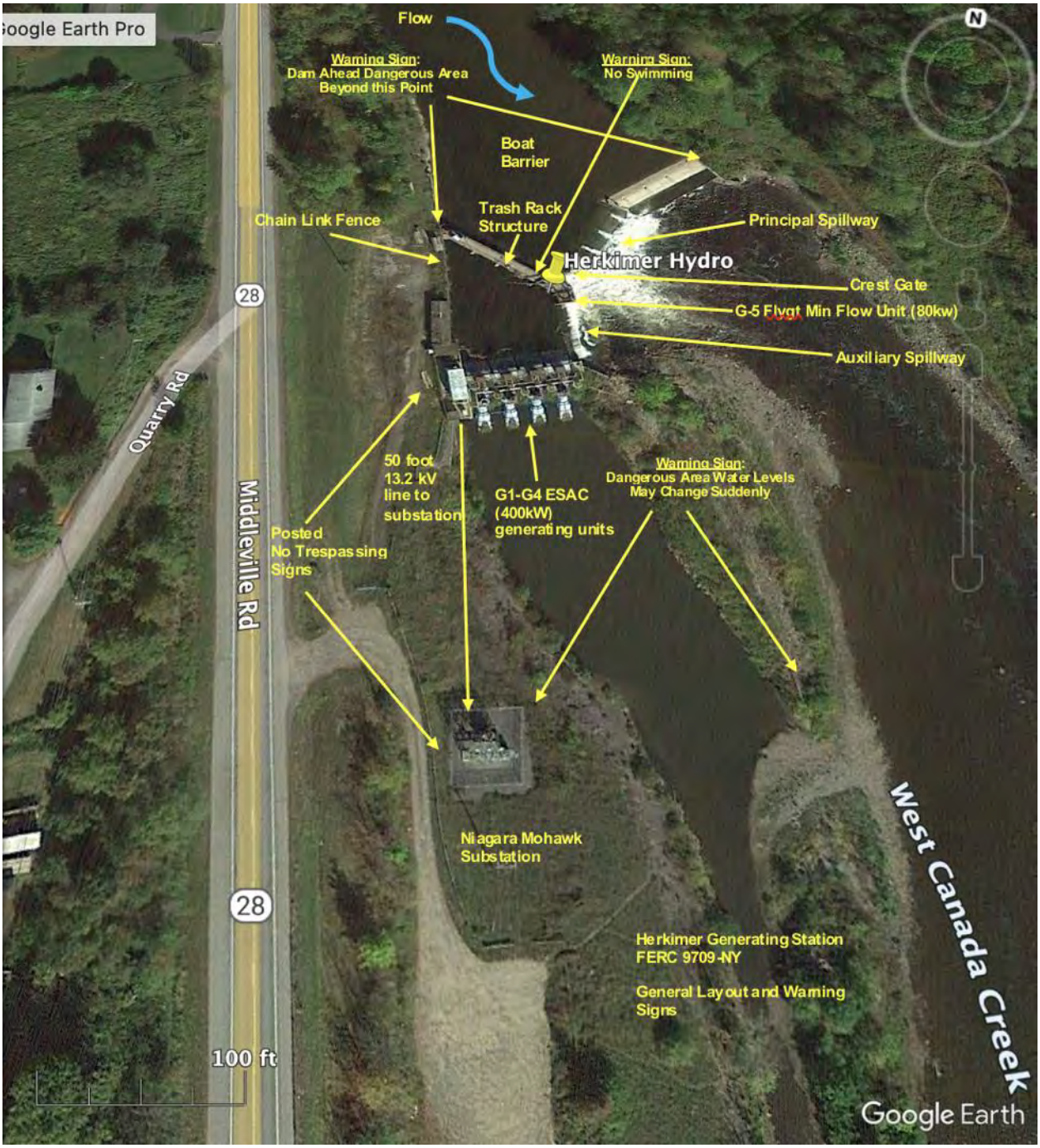

Downstream Recreation Opportunities
Morgan Dam
DS Rec 1
Dover Rd Bridge Fishing Access & American Whitewater Put-In (Section 1)
DS Rec 3
DS Rec 4
DS Rec 2
Tubing Put-In
West Canada Creek Campsites and Tubing Take-Out
DS Rec 5
DS Rec 6
DS Rec 7
Newport Dam
DS Rec 8
DS Rec 9
American Whitewater Take-Out (Section 1) & Put-In (Section 2)
Herkimer KOA Campground
Spot Count Sites
DS Rec 1 - Dover Rd Bridge Informal
DS Rec 2 - Rt 28 Informal Pull-Off
DS Rec 3 - NYSDEC Partridge Hill Rd
DS Rec 4 - NYSDEC Rt 28 Beecher Rd
DS Rec 5 - Rt 28 Overlook N. Poland
DS Rec 6 - NYSDEC Rt 28 Poland
DS Rec 7 - NYSDEC Rt 28 Overlook S. Poland
DS Rec 8 - Rt 28 Overlook S. Newport
DS Rec 9 - NYSDEC Rt 28 N. Middleville
DS Rec 10 - Rt 28 Kast Bridge Area
DS Rec 10
Kast Bridge
American Whitewater Take-Out (Section 2)
Herkimer Dam
0 1.5 3 6 Miles
Map Extent
Legend
Catch and Release Fishing Access
Fishing Access Both Banks
Left Bank Fishing Access
Right Bank Fishing Access
West Canada Creek Project
FERC Project No. 2701
Erie Boulevard Hydropower, L.P.
Drawn By: RSR
Date Drawn: 01-08-2021
Checked By: MAH
Date Checked: 01-31-2020
Kleinschmidt

EXHIBIT F
Project Design and Map



Document Accession #: 19860801-0419 Filed Date: 07/31/1986

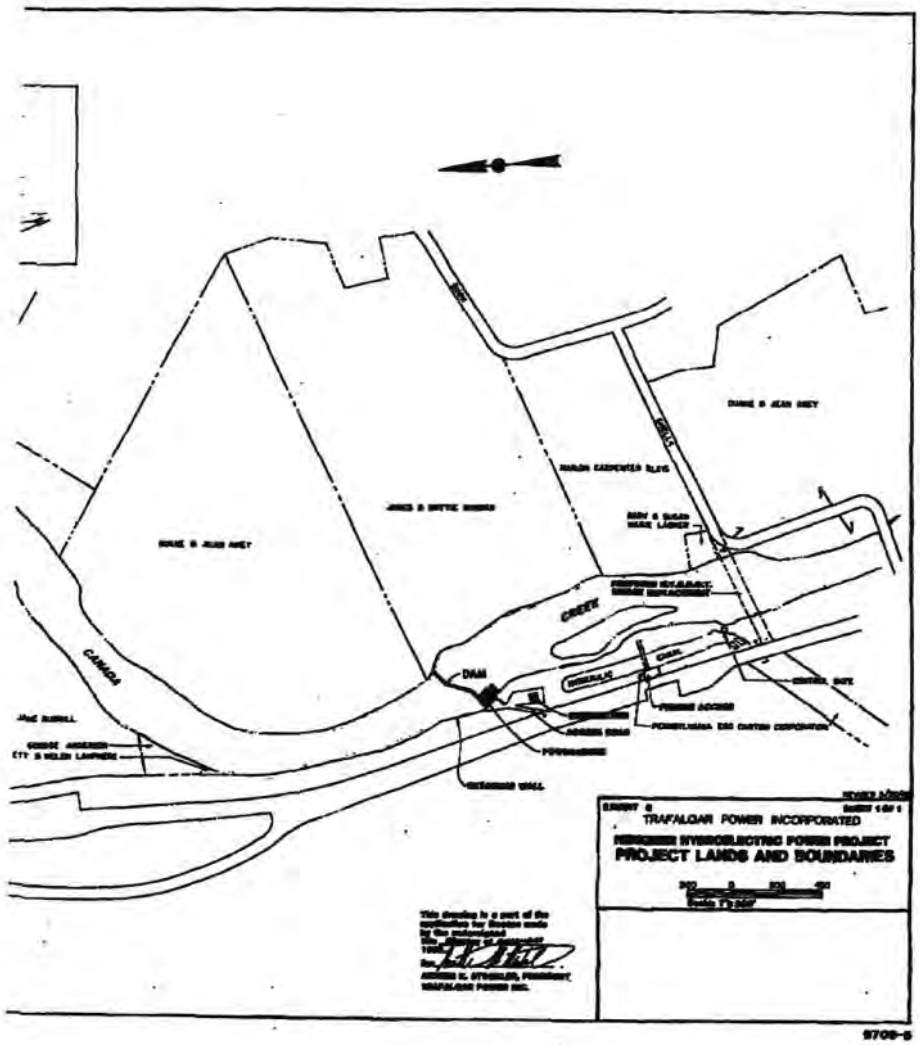
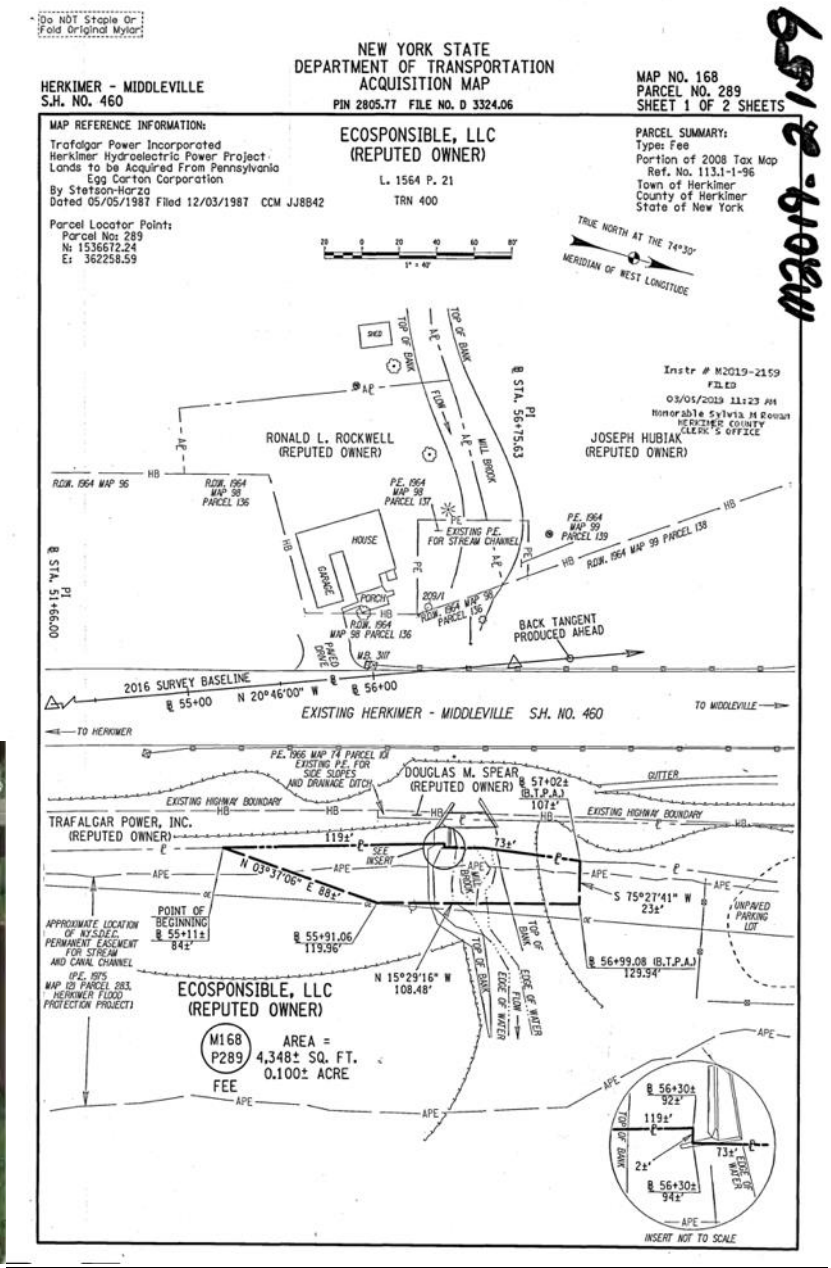


EXHIBIT G


Herkimer Hydro
West Canada Creek
66 ft
Google Earth


Do NOT Staple Or Fold Original Mylar
NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
ACQUISITION MAP
HERKIMER - MIDDLEVILLE
S.H. NO. 460
PIN 2805.77 FILE NO. D 3324.06
MAP NO. 168
PARCEL NO. 289
SHEET 1 OF 2 SHEETS
MAP REFERENCE INFORMATION:
Trafalgar Power Incorporated
Herkimer Hydroelectric Power Project
Lands to be Acquired From Pennsylvania Egg Carton Corporation
By Stetson-Harza
Dated 05/05/1987 Filed 12/03/1987 CCM JJ8842
Parcel Locator Point:
Parcel No: 289
N: 1536672.24
E: 362258.59
ECOSPONSIBLE, LLC
(REPUTED OWNER)
L. 1564 P. 21
TRN 400
PARCEL SUMMARY:
Type: Fee
Portion of 2008 Tax Map Ref. No. 113.1-1-96
Town of Herkimer
County of Herkimer
State of New York
TRUE NORTH AT THE 74°30' MERIDIAN OF WEST LONGITUDE
Instr # M2019-2159
FILED
03/05/2019 11:23 AM
Honorable Sylvia M Rowan
HERKIMER COUNTY
CLERK'S OFFICE
RONALD L. ROCKWELL
(REPUTED OWNER)
JOSEPH HUBIAK
(REPUTED OWNER)
WILL BROOK
HOUSE
GARAGE
PORCH
PAVED DRIVE
BACK TANGENT PRODUCED AHEAD
2016 SURVEY BASELINE
N 20°46'00" W
EXISTING HERKIMER - MIDDLEVILLE S.H. NO. 460
TO MIDDLEVILLE
TO HERKIMER
DOUGLAS M. SPEAR
(REPUTED OWNER)
TRAFALGAR POWER, INC.
(REPUTED OWNER)
EXISTING HIGHWAY BOUNDARY
GUTTER
UNPAVED PARKING LOT
POINT OF BEGINNING
APPROXIMATE LOCATION OF N.Y.S.D.E.C. PERMANENT EASEMENT FOR STREAM AND CANAL CHANNEL
ECOSPONSIBLE, LLC
(REPUTED OWNER)
M168
P289
FEE
AREA =
4,348± SQ. FT.
0.100± ACRE
TOP OF BANK
EDGE OF WATER
INSERT NOT TO SCALE

LEGAL DESCRIPTION

(HERKIMER HYDROELECTRIC POWER SITE)

PARCEL I — FEE TITLE TO THE FOLLOWING PREMISES:

All that tract, piece, or parcel of land situate within the Town of Herkimer, County of Herkimer, and State of New York, as shown on the map entitled, "Trafalgar Power Incorporated, Herkimer Hydroelectric Power Project, Lands to be Acquired from Pennsylvania Egg Carton. Corporation," dated May 5, 1987, and prepared by Stetson-Harza, Utica, New York, and more particularly described as follows:

Beginning at an iron pin located at the intersection of the division line between the herein described property on the north and the property of the People of the State of New York (owner) on the south with the division line between the herein described property on the east and the property of Douglas M. Spear (reputed owner) on the west;

thence northerly along the last mentioned division line the following twenty-one (21) courses and distances:

1) north 17° 18' 10" west, a distance of 43.42 feet to a point;
2) south 72° 41' 50" west, a distance of 10.00 feet to a point;
3) north 17° 18' 10" west, a distance of 60.00 feet to a point;
4) south 72° 41' 50" west, a distance of 1.40 feet to a point;
5) north 15° 49' 20" west, along the east face of a wood retaining wall, a distance of 104.00 feet to a point;
6) north 17° 44' 25" west, along said east face, a distance of 95.63 feet to a point;
7) north 20° 29' 40" west, along said east face, a distance of 35.11 feet to a point;
8) north 17° 16' 30" west, along said east face, a distance of 211.04 feet to a point;
9) north 74° 35' 15" east, a distance of 2.00 feet to a point;
10) north 15° 24' 45" west, a distance of 20.08 feet to a point;
11) north 08° 49' 45" west, a distance of 57.59 feet to a point on the east face of a stone retaining wall;
12) north 15° 07' 00" west, along said east face, a distance of 25.78 feet to a point;
13) north 08° 52' 00" west, along said east face, a distance of 76.29 feet to a point on the north end of said wall;
14) north 11° 16' 30" west, a distance of 303.98 feet to a point; said point located at the southwest corner of a stone retaining wall;
15) north 06° 30' 00" west, along said west face, a distance of 101.99 feet to a point;
16) north 10° 13' 15" west, along said west face, a distance of 92.62 feet to a point;
17) north 12° 31' 05" west, along said west face, a distance of 68.40 feet to a point;
18) north 16° 18' 20" vest, along said west face, a distance of 114.71 feet to a point;
19) north 23° 37' 15" west, along said west face, a distance of 116.18 feet to a point;

20) north 25° 57' 00" west, along said west face, a distance of 232.24 feet to a point; said point located at the north end of said wall;
21) north 01° 58' 20" west, a distance of 43.65 feet to a point; said point located at a point of curvature;

thence along the last mentioned division line in a northerly direction, on a curve having a radius of 1,407.39 feet, curving to the left, a distance of 202.95 feet to an iron pin; said pin located at the intersection of the last mentioned division line with the division line between the herein described property on the south and the property of the People of the State of New York (owner) on the north;

thence north 82° 07' 40" east, along the last mentioned division line, a distance of 105.82 feet to a point in the centerline of the West Canada Creek; said point also located at the intersection of the last mentioned division line with the division line between the herein described proper-by on the west and the property of the People of the State of New York (owner) on the east;

thence southerly along the last mentioned division line and the centerline of the West Canada Creek, the following two (2) courses and distances:

1) south 12° 22' 15" east, a distance of 281.54 feet to a point;
2) south 26° 17' 00" east, a distance of 285.00 feet to a point; said point located on the division line between the herein described property on the south and the property of People of the State of New York (owner) on the north;

thence north 68° 13' 00" east, along the last mentioned division line and the division line between the herein described property on the south and the property of Duane H. and Gene K. Aney (reputed owner) on the north, a distance of 155.00 feet to an iron pin located on the top of the easterly bank of the West Canada Creek; said pin located at the intersection of the last mentioned division line with the division line between the herein described property on the west and the property of James and Mattie Hinman (reputed owner) on the east;

thence southerly along the last mentioned division line and the top of the easterly bank of the West Canada Creek the following two (2) courses and distances:

1) south 46° 59' 45" east; a distance of 113.19 feet to a
2) south 24° 54' 10" east, a distance of 393.18 feet to a located at the intersection of the last mentioned division line with the division line between the herein described property on the north and the property of the People of the State of New York (owner) on the south;

thence south 68° 13' 00" west, along the last mentioned division line, a distance of 177.00 feet to a point in the centerline of the West Canada Creek; said point located at the intersection of the last mentioned division line with the division line between the herein described property on the west and the property of the People of the State of New York (owner) on the east;

thence south 11° 34' 50" east, along the last mentioned division line and the centerline of the West Canada Creek, a distance of 889.76 feet to a point; said point located at the intersection of

the last mentioned division line with the division line between the herein described property on the north and the property of the People of the State of New York (owner) on the south;

hence south 60° 46' 05" west, along the last mentioned division line, a distance of 190.00 more or less to the point of beginning.

PARCEL II — RIGHT OF WAY OVER THE FOLLOWING PREMISES:

All that tract, piece, or parcel of land situate within the Town of Herkimer, County of Herkimer, and State of New York, as shown on the map entitled "Trafalgar Power Incorporated, Herkimer Hydroelectric Power Project, Lands to be Acquired from Douglas M. Spear," dated May 5, 1987, prepared by Stetson-Harza, Utica, New York, and more particularly described as follows:

Beginning at an iron pin located at the intersection of the division line between the herein described property on the north and the property of Douglas M. Spear (reputed owner) on the south with the division line between the herein described property on the east and the easterly highway boundary of New York State Route 28. on the west;

thence northerly along the last mentioned division line the following thirteen (13) courses and distance:

1) north 17° 18' 10" west, a distance of 109.75 feet to a point;
2) north 17° 15' 00" west, a distance of 410.40 feet to an iron pin;
3) north 74° 29' 30" east, a distance of 4.00 feet to an iron pin;
4) north 15° 04' 55" west, a distance of 269.00 feet to an iron pin;
5) north 14° 13' 50" west, a distance of 82.27 feet to an iron pin;
6) north 08° 18' 10" west, a distance of 139.63 feet to a point located at a point of curvature;
7) thence northerly, on a curve having a radius of 1,884.86 feet, curving to the left, a distance of 98.69 feet to a point located at a point of tangency;
8) north 11° 18' 10" west, a distance of 150.00 feet to a point located at a point of curvature;
9) thence northerly, on a curve having a radius of 929.93 feet, curving to the left, a distance of 292.15 feet to an iron pin located at a point of tangency;
10) north 29° 18' 10" west, a distance of 34.00 feet to a point located at a point of curvature;
11) thence northerly, on a curve having a radius of 979.93 feet, curving to the right, a distance of 220.63 feet to a point located at a point of compound curvature;
12) thence northerly, on a curve having a radius of 1,457.39 feet, curving to the right a distance of 115.25 feet to a point;
13) thence north 05° 16' 15" west, a distance 95.17 feet to an iron pin located at the intersection of the last mentioned division line with the division line between the herein described property on the south and the property of Douglas M. Spear (reputed owner) on the north;

thence north 82° 07' 40" east, along the last mentioned division line, a distance of 42.15 feet to an iron pin; said iron pin located at the intersection of the last mentioned division line with the division line between the herein described property on the west and the property of Pennsylvania Egg Carton Corporation (reputed owner) on the east;

thence southerly along the last mentioned division line the following twenty-two (22) courses and distances:

1) thence southerly, on a curve having a radius of 1,407.39 feet, curving to the left, a distance of 202.95 feet to a point;
2) south 01° 58' 20" east, a distance of 43.65 feet to a point; said point located at the northwest corner of a stone retaining wall;
3) south 25° 57' 00" east, along the west face of said stone retaining wall, a distance of 232.24 feet to a point;
4) south 23° 37' 15" east, continuing along said west face, a distance of 116.18 feet to a point;
5) south 16° 18' 20" east, point;
6) south 12° 31' 05" east, point;
7) south 10° 13' point;
8) south 06° 30' 00" east, along said west face, a distance of 101.99 feet to a point; said point located at the southwest corner of said stone retaining wall;
9) south 11 16' 30" east, a distance of 303.98 feet to a point; said point located on the northeast corner of a stone retaining wall;
10) south 08° 52' 00" east, along the east face of said stone retaining wall, a distance of 76.29 feet to a point;
11) south 15° 07' 00" east, continuing along said east face, a distance of 25.78 feet to a point;
12) south 08° 49' 45" east, a distance of 57.59 feet to a point;
13) south 15° 24' 45" east, a distance of 20.08 feet to a point;
14) south 74° 35' 15" west, a distance of 2.00 feet to a point;
15) south 17° 16' 30" east, along the east face of a wood retaining wall, a distance of 211.04 feet to a point;
16) south 20° 29' 40" east, along said east face, a distance of 35.11 feet to a point;
17) south 17° 44' 25" east, along said east face, a distance of 95.63 feet to a point;
18) south 15° 49' 20" east, along said east face, a distance of 104.00 feet to a point;
19) north 72° 41' 50" east, a distance of 1.40 feet to a point;
20) south 17° 18' 10" east, a distance of 60.00 feet to a point;
21) north 72° 41' 50" east, a distance of 10.00 feet to a point;
22) thence south 17° 18' 10" east, a distance of 43.42 feet to an iron pin; said pin located at the intersection of the last mentioned division line with the division line between the herein described property on the north and the property of Douglas M. Spear (reputed owner) on the south;

thence south 60° 46' 05" west, along the last mentioned division line, a distance of 30.66 feet to the point of beginning.

PARCEL III - FEE TITLE TO THE FOLLOWING PREMISES:

Also, all those tracts, pieces or parcels of land set forth in the following descriptions:

1. Deed from Adam Harter and Diane Harter to Herkimer Newport and Poland Narrow Gauge Railway Company dated August 3, 1880 and recorded in the Herkimer County Clerk's Office on August 10, 1880 in Book 115 at page 154.

2. Deed from William Smith and his wife to Herkimer Newport and Poland Narrow Gauge Railway Company dated August, 1880 and recorded in the Herkimer County Clerk's Office on September 17, 1880 in Book 114 at page 439.

3. Deed from Catherine W. Folts to Herkimer Newport and Poland Narrow Gauge Railway Company dated August, 1880 and recorded in the Herkimer County Clerk's Office on September 21, 1880 in Book 114 at page 445.

4. Deed from Peter Weber and Julia A. Weber to Herkimer Newport and Poland Narrow Gauge Railway Company dated August 31, 1880 and recorded in the Herkimer County Clerk's Office on September 23, 1880 in Book 114 at page 451.

5. Deed from William W. Barse and Elizabeth Barse to Herkimer Newport and Poland Narrow Gauge Railway Company dated September 23, 1880 and recorded in the Herkimer County Clerk's Office in Book 114 at page 462.

6. Deed from Delia Hiltz, Andrew Hiltz, George W. Hiltz, Nary E. Hall, Lucy Petrie and Julia Dockstader to Herkimer Newport and Poland Narrow Gauge Railway Company dated October 27, 1880 and recorded in the Herkimer County Clerk's Office on October 29, 1880 in Book 114 at page 476.

7. Order of the Supreme Court with respect to the acquisition of land by Herkimer Newport and Poland Narrow Gauge Railway Company from Lewis Jones recorded on November 11, 1880 in Book 114 at page 492.

8. Deed from Nancy E. Wires to Herkimer Newport and Poland Narrow Gauge Railway Company dated November 5, 1880 and recorded in the Herkimer County Clerk's Office on November 11, 1880 in Book 114 at page 499.

9. Deed from William N. Folts and Elizabeth Folts to Herkimer Newport and Poland Gauge Railway Company dated November 22, 1880 and recorded in the Herkimer County Clerk's Office on December 1, 1880 in Book 114 at page 526.

10. Deed from Jacob H. Harter and Catherine Harter to Herkimer Newport and Poland Narrow Gauge Railway Company dated December 9, 1880 and recorded in the Office of the Herkimer County Clerk on December 9, 1880-in Book 114 at page 539.

11. Order of the Supreme Court with respect to the acquisition of land by Herkimer Newport and Poland Gauge Railway Company from Alonzo W. Harter and recorded in the Office of the Herkimer County Clerk on April 13, 1881 in Book 116 at page 131.

12. Deed from Adelaide Fox and W. A. Smith to the Herkimer Newport and Poland. Narrow Gauge Railway Company dated August 2, 1881 and recorded on August 2, 1881 in the Office of the Herkimer County Clerk in Book 116 at page 305.

13. Deed from Jacob H. Harter and Catherine Harter to the Herkimer Newport and Poland Narrow Gauge Railway Company dated March 22, 1882 and recorded on March 22, 1882 in the Office of the Herkimer County Clerk in Book 120 at page 156.

14. Deed from William Smith and Mary Smith to the Herkimer Newport and Poland Narrow Gauge Railway Company dated March 27, 1889 and recorded on July 3, 1889 in the Office of the Herkimer County Clerk in Book 136 at page 227.

15. Deed from Catharine W. Folts to Herkimer Newport and Poland Narrow Gauge Railway Company dated September 9, 1891 and recorded on September 9, 1891 in the Office of the Herkimer County Clerk in Book 144 at page 68.

16. Deed from Mary Webber Pryne to the Herkimer Newport and Poland Narrow Gauge Railway Company dated December 7, 1891 and recorded on December 8, 1981 in the Office of the Herkimer County Clerk in Book 144 at page 256.

17. Deed from William Smith and Mary Smith to Herkimer Newport and Poland Narrow Gauge Railway Company dated December 8, 1891 and recorded January 13, 1982 in the Office of the Herkimer County Clerk in Book 144 at page 329.

18. Deed from Glen Steele and Grace Steele to The New York Central and Hudson River Railroad Company dated November 10, 1913 and recorded on November 17, 1913 in the office of the Herkimer County Clerk in Book 219 at page 113.

Excepting therefrom the following:

1. Deed from Edward M. Burns, et al, to the Village of Herkimer dated August 9, 1897 and recorded on August 16, 1897 in the Office of the Herkimer County Clerk in Book 163 at page 391.

2. Deed from The Mohawk and Malone Railway Company to Fred E. Carpenter dated November 7, 1892 and recorded November 11, 1892 in the Office of the Herkimer County Clerk in Book 146 at page 561.

3. Deed from The Mohawk Malone Railway Company to William Seward Webb dated July 22, 1897 and recorded on May 18, 1953 in the Office of the Herkimer County Clerk in Book 467 at page 453.

4. Deed from The New York Central and Hudson River Railroad Company to Municipal Commission of the Village of Herkimer dated December 10, 1910 and recorded on March 3, 1911 in the Office of the Herkimer County Clerk in Book 207 at page 289.