

Appendix 1

Ownership/Regulatory Status

The Stevens Mill hydroelectric project (the “Stevens Mill project”) is owned and operated by Eagle Creek Renewable Energy LLC (“Eagle Creek”), a Delaware corporation. The history of development, ownership and operation of the Stevens Mill project is described below.

The Stevens Mill project has a total installed capacity of is a 1.928 MW and is located in the city of Franklin, New Hampshire. The project was initially developed in the early 1900’s by the M.T. Stevens Co. M.T. Stevens Co. was a manufacturer of woolen dress goods. The origins of the company can be traced to J.P. Stevens and Co. which was founded in 1813 in North Andover, Massachusetts by Captain Nathaniel Stevens and produced woolen broadcloth in 1813. In 1901, Moses T. Stevens incorporated the company, constructed the Stevens Mill Complex and associated hydroelectric facilities in Franklin, NH and changed the company name to M.T. Stevens Company.

One of the Stevens Mill project’s turbines (Unit 1) is located immediately across the river from the Stevens Mill building No. 1 while turbine No. 2, the River Bend turbine is located approximately 900 feet downstream adjacent to Stevens Mill building No. 2. Both turbines were originally installed to supply power to the mill buildings. On June 14, 1983 the Federal Energy Regulatory Commission (“FERC”) issued an exemption from licensing of a small hydroelectric project 5 megawatts or less to the Franklin Electric Light and Power Company. (see Appendix 1-1). The exemption was subsequently amended on June 18, 1997 to reflect the removal of a 250 kW generating unit which had remained idle since 1992 because of mechanical difficulties. The generating capacity of the project was reduced from the authorized 2,161 kW to 1,910 kW. (see Appendix 1-2) Franklin Industrial Complex Inc. purchased the Stevens Mill buildings and hydroelectric generating equipment in August of 1982. Algonquin Power Systems Inc (“Algonquin”) purchased the hydroelectric generating assets from Franklin Industrial Complex Inc. in the mid 1980s and inherited all of the rights and privileges associated with the FERC Exemption. The Stevens Mill generating assets were subsequently sold to Eagle Creek Renewable Energy LLC in July of 2013. (see Appendix 1-3)

Appendix 2

Listing of Authorities/Agencies Contacted

Federal

John Warner
 U.S. Fish & Wildlife Service
 U. S. Department of Interior
 70 Commercial Street, suite 300
 Concord, NH 03301-5087
 Tel: 603-223-2541 ext 15
 Email: John_Warner@fws.gov
 Date last contacted: Sept 25, 2013
 Nature of last contact: Request for
 Comment

State

Carol Henderson
 Fish & Wildlife Ecologist
 New Hampshire Fish and Game
 Department
 11 Hazen Drive
 Concord, NH 03301
 Tel: 603-271-3511
 Email:
 Carol.Henderson@wildlife.nh.gov
 Date last contacted: July 18, 2013
 Nature of last contact: Request for
 Comment

Ted Walsh
 Surface Water Monitoring
 Coordinator
 New Hampshire Dept. of Environ
 Services
 29 Hazen Drive
 Concord, NH 03301
 Tel: 603-271-2083
 Email: Ted.Walsh@des.nh.gov
 Date last contacted: Sept 24, 2013
 Nature of last contact: Sent water
 quality data for DES analysis

State continued

Kim Tuttle
Certified Wildlife Biologist
New Hampshire Fish and Game
Department
11 Hazen Drive
Concord, NH 03301
Tel: 603-271-6544
Email:
Kim.Tuttle@wildlife.nh.gov
Date last contacted: May 31, 2012
Nature of last contact: Request for
Comment

NH Division of Historical
Resources
State Historic Preservation Office
Attn: Review and Compliance
19 Pillsbury Street
Concord, NH 03301-3570
Tel: N/A
Email: N/A
Date last contacted: Aug 16, 2013
Nature of last contact: Sent Rqst
for Project Review

NH Natural Heritage Bureau
DRED
Division of Forests and Lands
172 Pembroke Road
Concord, NH 03302-1856
Tel: 603-271-6488
Email:
Melissa.Coppola@dred.state.nh.us
Date last contacted: Aug 30, 2013
Nature of last contact: Receipt of
Review

State *continued*

New Hampshire Division of Parks
and Recreation

172 Pembroke Road

P.O. Box 1856

Concord, NH 03302-1856

Email: nhparks@dred.state.nh.us

Tel: (603) 271-3556

Date last contacted: Sept 27, 2013

Nature of last contact: Sent Rqst
for Project Review

Appendix 3

Project Location and Operations

The Stevens Mill hydroelectric project (“the project”) is located at river mile 9 on the Winnepesaukee River, in the city of Franklin, Merrimack County, New Hampshire. (see Appendix 3-1) This site is part of a two part development along with the River Bend project. The project includes a 1-acre impoundment with an average depth of 9 feet and a maximum gross storage capacity of 7 acre-feet.

The Stevens Mill project is located at river mile 9 on the Winnepesaukee River within the City of Franklin, New Hampshire. It is located approximately one mile upstream of the confluence of the Winnepesaukee and the Pemigewasset Rivers and about 3 miles downstream of the USGS gage number 01081000 at Tilton. As shown in Appendix 3-1, the river forms a horseshoe bend to the southwest of the City. Two dams are located on this bend; the uppermost is the Stevens Mill Dam which is owned by the applicant and is the subject of this application,

The Stevens Mill Dam is a concrete gravity structure approximately 80 feet long and 22 feet in height. The crest elevation is reported as 312.55 (USGS); however, it is equipped with a 3 foot high Obermeyer inflatable crest gate providing an overflow elevation of 315.28 feet. The impoundment created by this structure covers approximately one acre with a pool elevation maintained at approximately 315 feet elevation (USGS).

Adjacent to the dam on each bank are water intakes for the two hydroelectric units. Unit No. 1, the Stevens Mill project is rated at 0.230MW and is located on the northerly side of the Winnepesaukee river in the Bow street powerhouse adjacent to the Stevens Mill Dam. The Stevens Mill project was developed to utilize the required minimum flow release from the dam that supplies flow to Unit No. 2, the River Bend Project. The River Bend project is located 350 feet downstream and includes Unit No. 2 which has a rated capacity of 1.6 MW. Flows in excess of the turbines’ capacity are discharged through a sluiceway on the southern end of the dam, which is controlled automatically by a steel vertical lift gate.

Approximately 3,800 feet further downstream around the bend in the

river is the second dam, the Franklin Falls Hydro Dam (LIHI Cert No. 83), which is currently owned by Franklin Falls Hydroelectric Corporations and operated as a hydro project. The crest of this dam is reported to be 281.45 feet (USGS) and will establish the tail water elevation for the Stevens Mill Dam project. The gross head available between the dams is 34 feet.

The Stevens Mill project is operated as a run-of-river facility. Outflows from the project equal inflows on an instantaneous basis, and water levels above the dam are maintained at the crest of the dam and are not drawn down for the purposes of generating power. The exemptee is required to maintain a minimum flow of 100 cfs or inflow to the project area, whichever is less at all times either through Unit 1 which is located at the project dam and operated as a minimum flow turbine or under the 6.5 foot wide by 9 foot high sluice gate located at the left abutment to maintain water quality and protect aquatic habitat (see Appendix A-1 for the last 5 years of project compliance). Project works consist of: (1) a 64 foot long, 22 foot high concrete gravity dam known as the Stevens Dam; (2) a one-acre reservoir with a normal water surface elevation of 3.15.28 feet M.S.L; (3) a 740-foot-long penstock beginning at the Stevens Dam and running along the south bank. At the northwest corner of the Stevens Mill building the penstock connects to; (4) a 420-foot-long penstock; a powerhouse with one turbine (Unit No. 2) having a total installed capacity of 1,600 kW; (5) a 150-foot-long penstock at the Stevens Mill Dam connected to the Bow Street powerhouse at the north river bank containing a turbine generator with a total rated capacity of 230 kW; (6) two transmission lines; and (7) appurtenant works.

The Stevens Mill project is a 1,830 kW plant in Franklin, New Hampshire. The site utilizes a mixture of modern and old generating equipment in two vintage powerhouses. The Stevens Mill powerhouse contains Unit 1, the minimum flow turbine generator with a total rated capacity of 230 kW. Unit 1 is located 150 feet downstream of the Stevens Dam. The River Bend powerhouse contains Unit 2 with a total installed capacity of 1,600 kW. Unit 2 is located 350 feet downstream of the Stevens Dam in the River Bend powerhouse. The annual drawdown of the Lake Winnepesaukee provides a boost to energy generation at the site during fall season.

Appendix A

Description of Project flows

River flow History

The Winnepesaukee River is a 10.5-mile-long river that connects Lake Winnepesaukee with the Pemigewasset and Merrimack rivers in Franklin, New Hampshire. The river is located in the Lakes Region of central New Hampshire. The total drainage area of the river is approximately 488 square miles.

There are two distinct sections of the river. The upstream section consists of a series of river courses connecting a chain of lakes, beginning with Lake Winnepesaukee. From the Lakeport dam at the outlet of Lake Winnepesaukee in the Lakeport section of Laconia, the river almost immediately enters Opechee Bay. 1 mile down the lake, the river exits over the Lochmere dam and drops through the center of Laconia, its banks lined by industrial buildings from the 19th century that were constructed to take advantage of the river's power. The 1 mile section through Laconia ends at Winnisquam Lake, the fourth-largest lake in New Hampshire. A 5-mile (8 km) stretch across Winnisquam leads to the Clement dam at the lake's outlet and a short descent to Silver Lake.

The lower section of the river begins at the natural outlet of Silver Lake, on the boundary between Belmont and Tilton, New Hampshire. The river passes through the center of the twin towns of Tilton and Northfield, then descends through a narrow valley to Franklin where the river passes over the Stevens Dam and finally the Franklin Falls Dam (LIHI Cert No. 83) which is approximately 800 below the River Bend powerhouse. From Tilton to Franklin, the river has a drop of up to 90 feet per mile, with challenging rapids for sport boaters who put in at Cross Mill Bridge and take out at the U.S. Route 3 Sanborn Bridge in downtown Franklin.

The Winnepesaukee River joins the Pemigewasset River roughly 2,000 feet below the Franklin Falls Dam in the center of Franklin, forming the Merrimack River.

The Winnepesaukee River has an average flow of about 700 cfs. The Maximum discharge through the units is 1050 cfs, 825 for Unit 2 and 3 and 225 cfs for the minimum flow unit, Unit 1. Flows on the Winnepesaukee River are highly regulated by dams, mainly by the Lakeport Dam located on

the outlet of Lake Winnepesaukee that controls 364 square miles i.e. about 45 percent of the watershed. Lakeport Dam is upstream of Stevens Mill. (see Appendix 3-a) In accordance with its FERC Exemption (project No. 3760) the Stevens Mill project is operated as a run of river facility and is required by Article 2 of the exemption to maintain a continuous minimum flow of 100 cfs of inflow, whichever is less, as a minimum flow. To comply with the requirement, the Exemptee utilizes a pond level sensor near the intake and a computer system that is programmed to monitor the project's operation. The turbine for Unit 1 and the 6.5 foot wide by 9 foot high sluice gate located at the left abutment of the dam are programmed to adjust automatically according to the headpond level in order to maintain the required minimum flow. See Appendix A-1 for the last five years of minimum flow compliance letters filed with the FERC.

Appendix B

Water Quality

A water-sampling program of the Winnepesaukee River was completed in late August and early September 2013 in accordance with a New Hampshire Department of Environmental Services ("NHDES") sampling protocol. The water quality certification monitoring requirements plan from NHDES and results of the Stevens Mill water-sampling program will be forwarded to LIHI upon receipt. The project fully expects that DES will confirm that the operation of the project is not causing or contributing to violations of New Hampshire state water quality standards.

Appendix C

Fish Passage and Protection

Article 2 of the Stevens Mill project's FERC Exemption from

Licensing dated June 14, 1983 requires compliance with any terms and conditions that Federal or State fish and wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. (see Appendix 1-1).

On July 18, 2013 requests for comment were submitted to Carol Henderson, Environmental Review Coordinator with the New Hampshire Fish and Game Department (NHF&G) and John Warner, Hydropower Coordinator with the United States Fish and Wildlife Service (USFWS). (see Appendix C-1) Responses from both agencies will be sent to LIHI upon receipt.

Appendix D

Description of Watershed Protection

The Winnepesaukee River basin is managed, based upon years of data and experience, to balance the many and diverse interests within the basin. There are 10 hydroelectric sites downstream of Lake Winnepesaukee that use the river flows to generate hydroelectric power, and NHDES has entered into water user contracts with the owners of each of these sites. Under the terms of the contracts, one of the objectives of NHDES is to provide water to these facilities in usable quantities, insofar as ongoing conditions will allow, to increase the generating potential of the hydro operations. It is understood by these water users, however, that NHDES also has obligations to reach and maintain certain target elevations for the purposes of promoting the reasonable use and enjoyment of the lakes and rivers by recreational users, and to minimize the risk and effects of damaging flooding.

Day to day lake levels and discharges are coordinated to stay within an operating range that best serves these interests. In general terms, stored water is preserved during the summer recreational season and released in the fall to serve the needs of the hydroelectric interests along the basin and to enhance the lake's ability to safely store flood waters during the typically high runoff months of March through May. During extreme events, the goal of NHDES is to strike a balance between high lake levels and high stream flows, both of which can be significantly damaging.

The Winnepesaukee River watershed is highly developed around the centers of Lakeport, Tilton, Belmont, Laconia and Franklin, NH. High levels of impervious surface contribute to increased levels of stormwater runoff

into the watershed.

Appendix E

Description of Threatened and Endangered Species Protection

Requests were submitted to the United States Fish and Wildlife Service and the New Hampshire Natural Heritage Bureau for a complete list of all threatened and/or endangered species found within the Stevens Mill hydroelectric project boundary. By letters dated July 30, 2013 and January 7, 2013 the New Hampshire Natural Heritage Bureau and United States Fish and Wildlife Service, respectively, confirmed that aside from the occasional transient bald eagle, no federal or state listed or proposed , threatened or endangered species or critical habitat are known to occur in the Project area. (see Appendix E-1)

As a condition of issuance, the Stevens Mill FERC exemption requires compliance with any terms and conditions that the Federal or State Fish and Wildlife agencies have determined appropriate to prevent loss of, or damage to, fish and wildlife resources. There have been no deficiencies noted by any agency with jurisdiction for the facility.

Appendix F

Cultural Resources

A Request for Project Review was submitted on August 16, 2013 (see Appendix F-1) to the New Hampshire Division of Historical Resources for a list of known sites of historic or archaeological significance that occur within the Stevens Mill project boundary. Their response will be forwarded to LIHI upon receipt as Appendix F-2.

During the FERC exemption process, the Stevens Mill complex was identified as being within the Franklin Falls Historic District listed in the National Register of Historic Places. By letter dated April 19, 1983, the applicant for the exemption agreed to implement cultural resource mitigation measures as outlined in a February 14, 1983 letter issued by the New Hampshire Department of Resources and Economic Development in

response to the application for exemption (“NH DRED”) (see Appendix F-3). The determination was made by the NH DRED that based on the implementation of the cultural resource mitigation measures described in their February 14, 1983 letter, the Stevens Mill project would have no adverse effect upon properties within the Franklin Falls Historic District. The Stevens Mill project has continuously operated under the parameters established in the February 14, 1983 letter and has had no adverse impact on historical or cultural resources located within the project boundary.

Appendix G

Recreation

Recreational access was not included as a requirement in the Project’s FERC Exemption (Project No. 3760) issued June 14, 1983. Due to the project’s location between buildings on both banks, the rocky nature of the reach of the Winnepesaukee River upon which the project is located and the commercially developed aspect of the project property, little to no recreational activity occurs at the project to date. The exemptee maintains a boat ramp which is utilized as a take-out point for kayakers on the Winnepesaukee River roughly 200 feet above the Stevens Mill Dam. The project provides recreational access for anglers free of charge within a safe distance of the project works. On September 27, 2013 a request was submitted to the New Hampshire Division of Parks and Recreation for confirmation that the project permits recreational activity free of charge within the project boundary (see Appendix G-1). The response from the New Hampshire Division of Parks and Recreation will be forwarded to LIHI as Appendix G-2 upon receipt.