Saywatt Hydroelectric, LLC
c/o Rolland Zeleny
18 Washington Street, PMB# 18
Canton, MA 02021
(603) 498-8089
indigoharbor@yahoo.com

January 11, 2011

Low Impact Hydropower Institute
Mr. Fred Ayer
Executive Director
Low Impact Hydropower Institute
34 Providence Street
Portland, Connecticut 04103

Re: Application of Mechanicsville Hydroelectric for Certification by the Low Impact Hydro Institute

Dear Mr. Ayer:

Attached please find an application for certification by the Low Impact Hydro Institute ("LIHI") of the Mechanicsville Hydroelectric Project (the "Project") of Saywatt Hydroelectric, LLC. In June 2010, Saywatt Hydroelectric, LLC purchased the Project. Saywatt Hydroelectric, LLC is a Massachusetts limited liability corporation with its principal place of business at 18 Washington Street, PMB# 18, Canton, MA 02021. Saywatt is owned by me and my wife.

For purposes of responding to inquiries regarding the application, persons should contact the following:

Primary Contact

Saywatt Hydroelectric, LLC
c/o Rolland Zeleny
18 Washington Street, PMB# 18
Canton, MA 02021
(603) 498-8089
indigoharbor@yahoo.com

Secondary Contact

William P. Short III
44 West 62nd Street
P.O. Box 2371773
New York, New York 10023-7173
(917) 206-0001; (201) 970-3707
w.shortiii@verizon.net

Mechanicsville (FERC No. P-9611) is a 325 kW, run-of-river Project located on the French River in the town of Thompson, which is located in Windham County, Connecticut. The Project has a ten year average annual production of 815,000 kWh. The FERC Order Granting Exemption from Licensing was issued January 27, 1988. The Project has been in compliance with its FERC Exemption requirements.

We believe that Mechanicsville Hydroelectric is a good candidate for Low Impact Hydroelectric Certification for the following reasons:

1) Historically, the Project was designed and operated with 750 kW of generating capacity. The capacity was supported by additional flow from the Quinebaug River being diverted into the French River in 1922. The Quinebaug was dammed by the USACE in the 1960's and now, only the French River flows through the Project area. The Project currently operates with a maximum installed capacity of 275 kW, which is about one third of what the previous facility could handle. Therefore, the dam, forebay and tailrace have very generous flow capacities. This makes flows through these passages below the typical maximum flow prescriptions for such facilities and safer for aquatic life.
2) The dam face is gently sloping, which is more amenable to aquatic life forms encountering the dam (see enclosed photos).
3) The facility operates in an automated run-of-river mode, monitored by computer control to assure compliance with flow prescriptions.
4) Both dissolved oxygen and wetland studies were completed in 1991 and accepted by resource agencies during the exemption process, helping to assure that the Project has minimal impact on the environment.
5) The Project dam has a human crossable bridge surmounting the granite block structure, which makes it convenient for recreational activities such as fishing, picnicking and portage of watercraft across the river and downstream of the Project. Public access is provided upstream.

The following text or computer files are attached to or contained within this application:

1. LIHI Questionnaire Form
2. Appendix 1-1, FERC order granting exemption from licensing, issued January 27, 1988
3. Appendix 2, Agency Contacts
4. Appendix 3-1, Description of the Facility
5. Appendix 3-2, Mode of Operation
6. Appendix 3-3, Location of the Facility
7. Appendix 3-4, Site Plan of the Facility
8. Appendix A, Flows
9. Appendix A-1, Demonstration of Minimum Flows
10. Appendix B, Water Quality
11. Appendix C, Fish Passage and Protection
12. Appendix D, Watershed Protection
13. Appendix E, Threatened and Endangered Species Protection
14. Appendix F, Cultural Resource Protection
15. Appendix G, Recreation
16. Appendix H, Facilities Recommended for Removal

The application is arranged such that the control document is the LIHI Questionnaire. Back-up documents are cited in the questionnaire and may be found in the appendices.

I request that you review this application and let me know if anything additional is needed in order to place this application in front of the agency contacts and eventually the board of directors of LIHI for consideration.

Sincerely yours,

Rolland Zeleny

enclosures

APPENDIX 1-1

MECHANICSVILLE HYDROELECTRIC PROJECT

FERC ORDER GRANTING EXEMPTION FROM LICENSING

Issued January 27, 1988

Copy of FERC Order Issued October 24, 1990 may be found on the portion of the LIHI website devoted to the Mechanicsville application and is titled "Appendix 1-1 FERC Order P-9611, 1988_01_27."

APPENDIX 2

MECHANICSVILLE HYDROELECTRIC PROJECT

AGENCY CONTACTS

Federal Energy Regulatory Commission
Kimberly D. Bose, Secretary
Telephone: 202-502-8400
Email: kimberly.bose@ferc.gov

Federal Energy Regulatory Commission – New York Regional Office
Peter R. Valeri, Regional Engineer
Telephone: 212-273-5930
Email: peter.valeri@ferc.gov

US Fish and Wildlife Service
Melissa Grader
Telephone: 413-548-9138
Email: mailto:Melissa_Grader@fws.gov

National Marine Fisheries Service
Marjorie Mooney
Northeast Fisheries Science Center
166 Water Street, Woods Hole, MA 02543-1026
Telephone: (508) 495-2000
Marjorie.Mooney-Seus@noaa.gov

CT Department of Environmental Protection
Bureau of Water Management
Eric Thomas, Watershed Manager
79 Elm Street, Hartford, CT 06106
Telephone: 860-424-3548, Fax: 860-424-4055
Email:eric.thomas@ct.gov

CT Department of Environmental Protection
Brian Murphy, Fisheries Division
79 Elm Street, Hartford, CT 06106
Telephone: 860-295-9523
Email: brian.murphy@ct.gov

CT Department of Environmental Protection
Wildlife Division
79 Elm Street, Hartford, CT 06106, Tel: 860-424-3548,
Email: dep.wildlife@ct.gov

United States Army Corps of Engineers
Regulatory Office
New England District
696 Virginia Road
Concord, MA 01742-2751
978-318-8338 (phone)
Steve Andon: 978-318-8007
steve.a.andon@usace.army.mil

National Park Service, Rivers and Special Studies Branch
Kevin Mendik
Telephone: 617-223-5299
kevin_mendik@nps.gov

Thames River Basin Partnership
Jean Pillo, Watershed Conservation Coordinator
Eastern Connecticut Conservation District
P.O. Box 11Pomfret Center, CT 06259
Telephone: 860-928-4948
Email:jean.pillo@conservect.org

Connecticut Trust for Historic Preservation
940 Whitney Avenue, Hamden, CT 06517-4002
Telephone: 203-562-6312 Fax: 203-773-0107
Email: contact@cttrust.org

American Rivers
Brian Graber
Telephone: 202-347-7550
bgraber@americanrivers.org

American Whitewater
Mark Singleton
Telephone: 828-586-1930
mark@americanwhitewater.org

Rivers Alliance of Connecticut
PO Box 1797
7 West Street, 3rd Floor
Litchfield, CT 06759
Telephone: 860-361-9349
rivers@riversalliance.org

French Rivers Greenway
ken.parker@charter.net

Connecticut Water Trails Association
ConnecticutWaterTrails@hotmail.com

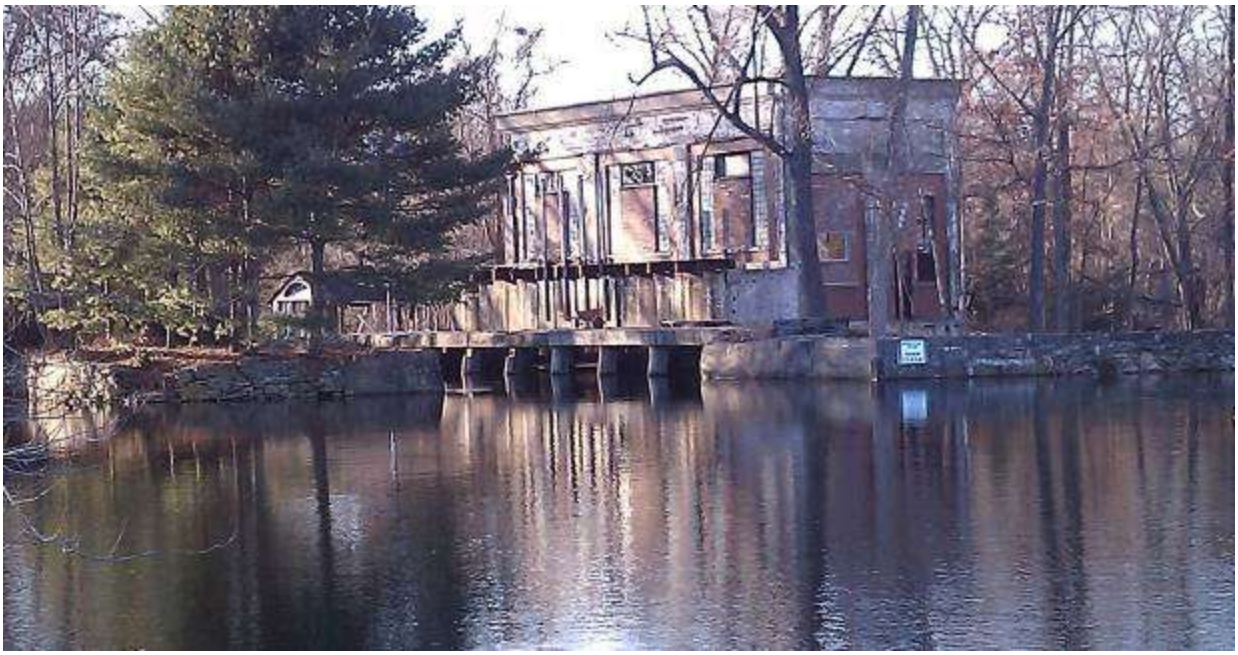
The Last Green Valley
P.O. Box 29
Danielson, CT 06239
Telephone: 860-774-3300
mail@tlgv.org

Trout Unlimited
Charles Olchowski
Telephone: (413) 773-5920
charlieolchowski@mtdata.com

APPENDIX 3-1

Mechanicsville Hydroelectric Project

Description of the Facility



The Mechanicsville Hydroelectric Project (the "Project"), exempted from licensing by the Federal Energy Regulatory Commission ("FERC") as Project No. P-9611, is owned by Saywatt Hydroelectric, LLC. The Project is located on the French River in the Town of Thompson, Windham County, Connecticut. The Project is 1000 feet upstream from the confluence of the French River into the Quinebaug River. The French River joins the Quinebaug River, which eventually joins with the Shetucket and forms the Thames River. The Thames River flows into Long Island Sound in New London, Connecticut.

The Mechanicsville dam was originally constructed in the mid 1800's. It was upgraded by the Putnam Light and Power Company in 1922 when the hydroelectric powerhouse and civil works were originally constructed. Initially, the Project diverted flows from the Quinebaug River into the Mechanicsville Dam impoundment on the French River. This tripled the flow of water in the Project area used to produce power. The original Project included three hydroelectric turbines, with a combined capacity of approximately 750 kW.

The abandoned Mechanicsville Hydro station during the epic flood of 1955.

Following a devastating hurricane in 1936, the powerhouse was flooded and the Project was abandoned. Following two more hurricanes in 1938 and 1955, the US Army Corps of Engineers (USACE) constructed a flood control dam and reservoir on the Quinebaug River and terminated the Quinebaug's flow from entering the Project area. Two more flood control dams were built upstream of the Project. One USACE flood control dam is located at Buffumville on the Little River, a tributary to the French, in Oxford, Massachusetts and one at Hodges Village on the French River in the same town. Approximately 50% of the Project flows are regulated by these USACE dams so future threats of flooding have been virtually eliminated.

In the early 1980's, the abandoned site was purchased by the Essex Hydro Company. They decided not to develop the site and it was then acquired by Mr. Robert King. Mr. King applied for and received an exemption from licensing from the FERC on January 27, 1988. Mr. King proceeded to pour his heart and soul into rehabilitating the abandoned site into a useful alternative energy facility. On June 1, 2010, Saywatt Hydroelectric, LLC acquired the Project from Mr. King and has

operated the site since that time. Saywatt has made and plans to make future investments to further improve the aesthetic surroundings and stabilize this historic alternative energy site.

The major Project works consist of a dam and impoundment, an intake structure and a powerhouse. Specifically, the Project consists of: (1) a granite block dam, 200 feet long with a height of 20 feet to the top of the bridge structure, 13 feet to the top of the permanent crest elevation of 301.5 feet mean sea level (msl) and 15 feet to the top of the flashboard elevation of 303.5 feet msl, (2) an impoundment approximately 3,900 feet long, with a surface area of 48 acres and 256 acre-feet gross storage, (3) a brick and concrete powerhouse with a turbine-generator capacity of 275 kW, (4) a 35-foot long forebay with an average width of 30 feet and depth of 8.5 feet, (5) a 100 feet long by 55 feet wide tailrace, and (6) three 100 kVA transformers, which convert 480V three phase power up to 23.0 kV, which travel out on a 900 feet long Connecticut Light and Power transmission line.

The Project has virtually no by-pass reach. The powerhouse is located adjacent to the dam. The plunge pool at the base of the dam is in constant communication with the tailrace and downstream river flow. If you were to define the plunge pool as a by-pass reach, it would measure less than 35 feet from the toe of the dam to the tailrace.

The Mechanicsville Hydroelectric Project is located about nine miles downstream from another hydroelectric project on the French River in Webster, MA. Two other projects are located about three miles downstream on the Quinebaug River in Putnam, CT. One of the Putnam projects, Putnam Hydro, has received LIHI certification.

APPENDIX 3-2

Mechanicsville Hydroelectric Project

Mode of Operation

The Mechanicsville Project is semi automated and operates in a run-of-river mode for the protection of water quality, aquatic resources, and aesthetic values in the French River. The Project operates in a run-of-river mode and at all times maintains discharges from the Project so that the flow in the French River, downstream of the Mechanicsville powerhouse, approximates the instantaneous flow in the French River upstream of the Mechanicsville dam.

More specifically, the Project is operated by an operator that lives next to the Project or by the Project owner. When there is enough flow in the French River to satisfy the 86 cfs minimum flow requirement as set forth and stated in the FERC Exemption, an operator manually inspects the area and if the operator deems the area to be in a safe condition, starts the hydroelectric turbine to a minimum setting. If everything operates smoothly, the operator then transfers control of the Project from manual mode to automatic mode, which then slowly ramps power up to an appropriate level over the course of one to two hours.

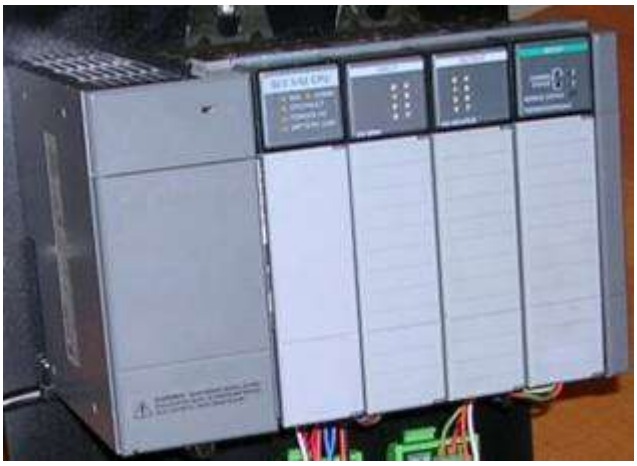
The Project is controlled via an Allen Bradley SLC-503 Programmable Logic Controller (PLC). The PLC continuously monitors pond elevation in the impoundment. The pond elevation is selected to be at the top of the flashboards or approximately 303.5 above msl. If pond elevation increases or decreases by a fraction of an inch, the PLC will adjust the opening of the Kaplan turbine runner to use more or less water. This is how pond elevation and run-of-river flows are maintained, which has worked effectively for over 20 years.

If the PLC senses that the pond elevation has changed above or below the standard operational settings, an emergency text message is sent to both operators. Typically an operator can be on site within minutes. Or the owner can access the PLC via the internet, through his personal computer or by mobile phone to make operational decisions real time. In case no operator responds, the PLC will gently shut down the turbine if the pond level continue to operate outside an acceptable range.

If there is a shutdown caused by any circumstance, including a power outage, the turbine’s cylinder gate will slowly close and water will flow over the flashboards

almost instantaneously. Leakage through the cylinder gate and the 22 cfs minimum flow through the dam, assure that sufficient water continues to flow downstream through both the bypass reach and the tailrace. Within several minutes, run-of-river flows resume in the downstream river.

A belt driven Kaplan Turbine and Generator inside the Hydro Plant.



An Allen Bradley SLC-503 Programmable logic controller along with a pressure transducer in the forebay, continuously maintain the proper water elevation and will alert the Project operators of impending issues.

APPENDIX 3-3

Mechanicsville Hydroelectric Project

Locations of the Facility

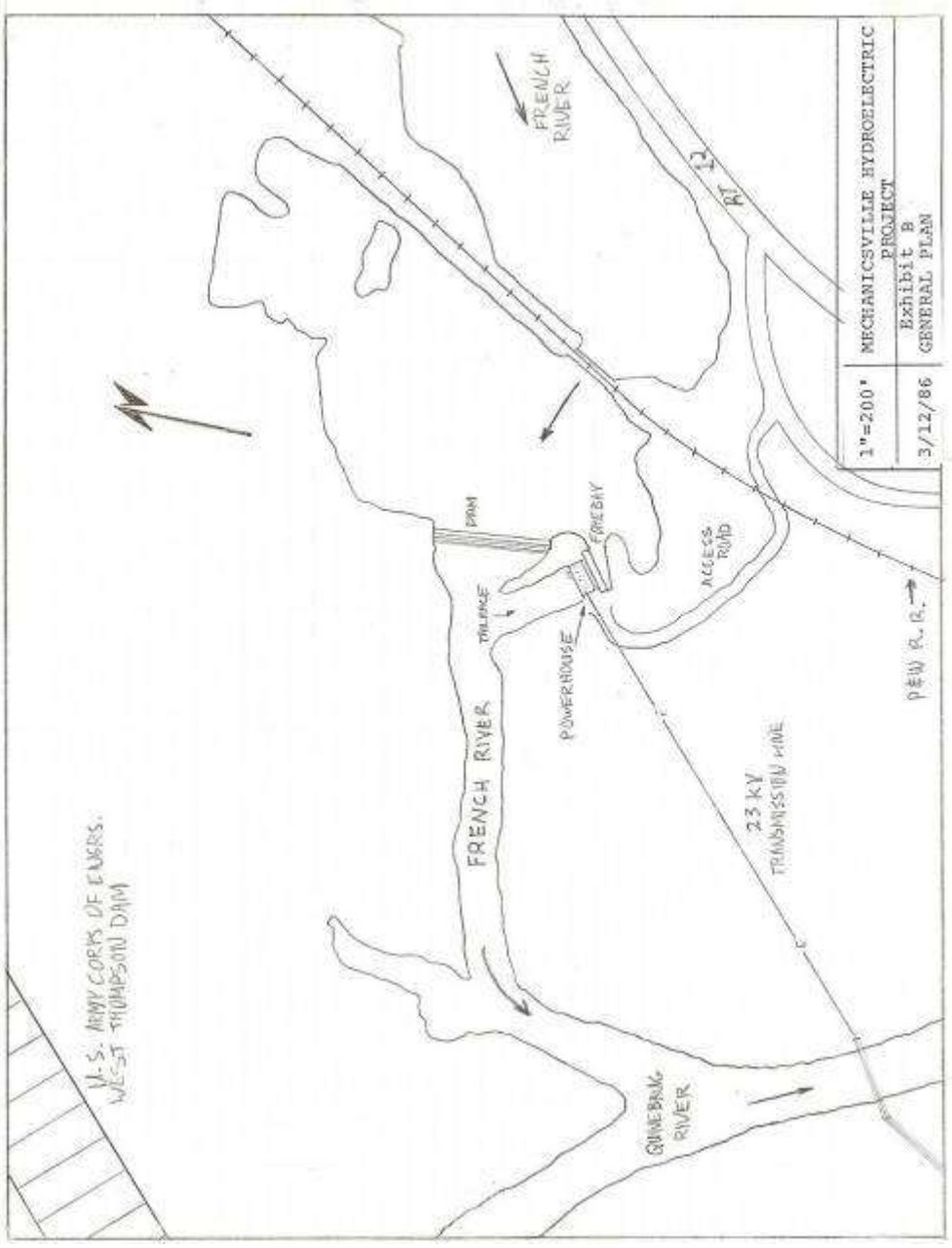
The major components of the Mechanicsville Project may be viewed on Goggle Earth and may be found at the following latitude and longitude:

Facility	Latitude	Longitude
Powerhouse	41^0 56’33.60” N	71^0 53’42.40” W
Granite Block Dam	41^0 56’35.25” N	71^0 53’41.35” W

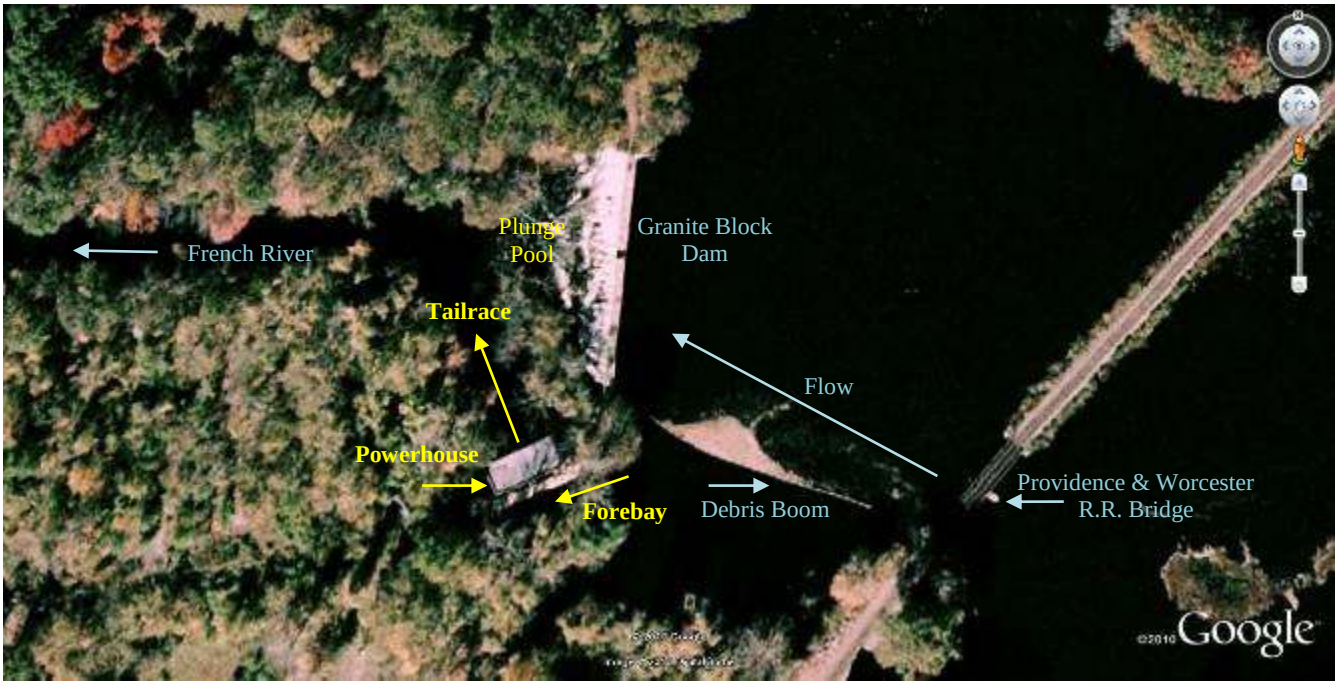
APPENDIX 3-4

Mechanicsville Hydroelectric Project

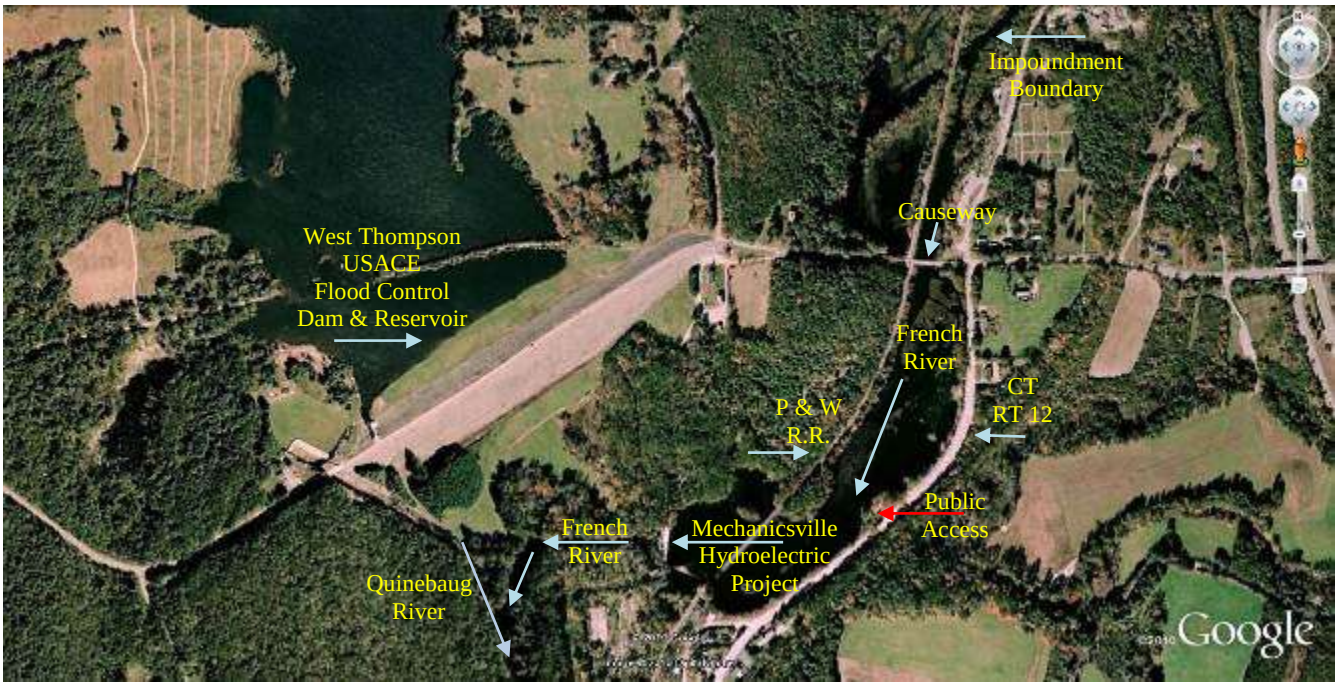
Site Plan of the Facility



AERIEL VIEW
CLOSE UP



AERIAL VIEW
FAR UP



APPENIDX A

Mechanicsville Hydroelectric Project

Flows

The facility is in compliance with resource agency recommendations issued after December 31, 1986 regarding flow conditions for fish and wildlife protection, mitigation and enhancement for both the reach below the tailrace and the bypassed reach.

The Project consists of a dam located on the French River, which originates in Leicester, Massachusetts just west of Worcester, Massachusetts. The French River discharges into the Quinebaug River, 1000 feet downstream of the Project area. The Quinebaug River eventually joins with the Shetucket and forms the Thames River. The Thames River flows into Long Island Sound in New London, Connecticut.

The following flow parameters were extrapolated from 33 years of US Geological Survey (USGS) records for hydrologic gaging station No. 0112500, located on the French River in Webster, Massachusetts, about 9 miles upstream of the Project. Figures used to calculate flows for the Project are derived by taking a ratio of the drainage area at the gaging station and the Project site and multiplying the data from the gaging station by the ratio. The drainage area at the USGS gage is 86 square miles and the drainage area at the Project site is 112 square miles. Therefore a ratio of 112/86 or 1.3 is used. Flow parameters for the Project area are as follows:

- Median flow: 145 cfs
- Average flow: 230 cfs
- Low flow exceeded 90 percent of the time: 26 cfs
- High flow exceeded 10 percent of the time: 545 cfs
- Minimum Prescribed Flow Over/Through the Dam: 22 cfs or inflow if less
- Minimum Start Condition: 86 cfs (flow exceeded 65% of the time)
- Shut Down: 10 minutes to full flow over the dam
- Flashboards Lowered: Flashboards are lowered by 1 foot on or before July 1st and are replaced after October 1st only when flows exceed 86 cfs. This helps improve dissolved oxygen and lowers temperatures in the Project impoundment.

The Project meets the minimum 22 cfs through the dam by passing water through four 16 square inch channels through the dam along with leakage through and over the dam and flashboards.

The Project meets the minimum 86 cfs start condition by monitoring of the USGS gage on a daily basis and making operational decisions based upon real-time flows in the Project area.

The Project meets the requirement of 10 minutes to full flow over the dam in the event of turbine shut-down by automatically controlling the pond elevation to a fraction of an inch of the top of the flashboards.

The Project meets the flashboard requirements by removing flashboards each July 1st to lower the pond elevation by one foot.

The Project dam creates a 48-acre impoundment that is 3,900 feet long, with a water surface elevation of 303.5 feet above msl.

Downstream of the Project dam, there is virtually no by-pass reach. The powerhouse is located adjacent to the dam. The plunge pool at the base of the dam is in constant communication with the tailrace water and downstream river flow. If the plunge pool is defined as the bypass reach, it measures less than 35 feet from the toe of the dam to the confluence with the tailrace water. During the summer of 2010, we experienced historically low flows below 5 cfs on the French River. During these low flows, the plunge pool (bypass reach) never dried out. Despite this fact, the Project spills 22 cfs or inflow, if less, through the dam.

The Mechanicsville Project is operated in a run-of-river mode for the protection of water quality, aquatic resources, and aesthetic values in the French River. The Project operates in a run-of-river mode and at all times maintains discharges from the Project so that the flow in the French River, immediately downstream of the powerhouse, approximates the instantaneous flows in the French River upstream of the Project.

The Project during high flow above 800 cfs (above) and low flow below 5 cfs (below)

APPENIDX A-1

Mechanicsville Hydroelectric Project

Demonstration of Minimum Flows

SAYWATT HYDROELECTRIC, LLC
18 Washington Street PMB# 18
Canton, MA 02021
(603) 498-8089

January 9, 2011

Federal Energy Regulatory Commission
New York Regional Office
19 West 34th Street, Suite 400
New York, NY 10001

RE: Mechanicsville Hydroelectric Project
FERC Exemption No. 9611

Dear Director,

Article 2 of the referenced Exemption requires that a minimum flow be maintained at the referenced hydroelectric project. As president of Saywatt Hydroelectric, LLC, I certify that this project has been operated in accordance with the Exemption for the entirety of the preceding year.

The minimum flow in the bypassed reach of the lesser of inflow or 22 cfs is passed through four openings in the dam. The plant operates run-of-river. This operation is effected by an Allen Bradley SLC-503 programmable logic controller using a pressure transducer type headwater level sensor. The operation is monitored through regular operator visits and telephone calls to the on-site programmable logic controller from a remote base of operations.

Best Regards,

Rolland Zelen
Saywatt Hydroelectric, LLC

APPENIDX B

Mechanicsville Hydroelectric Project

Water Quality

The facility is in compliance with all conditions issued pursuant to a Clean Water Act Section 401 water quality certification issued for the facility after December 31, 1986.

The Thames River Drainage Basin is comprised of nine regional drainage basins including the French River. The northern half of the Thames basin, where the French resides, is relatively rural, characterized by small towns, farmland and forest. A variety of pressures have caused the disappearance of many working farms and privately-owned forest lands in this area. Most (if not all) of the industrial mills are gone. Water treatment facilities have come on-line during the 1980s. Therefore, water quality has improved significantly for this river since the Project was commissioned.

When Mechanicsville Hydroelectric first applied for an Exemption, the French River was listed as impaired. Water quality in the French River was severely impaired for several reasons. A main contributor to the impairment was poorly or untreated sewage disposal into the river upstream in Dudley and Webster, Massachusetts. Fish consumption and recreation were not advised. The Project Exemptee was ordered to conduct a dissolved oxygen (DO) study. The study plan for DO monitoring was approved. The results of the study showed that DO readings were not below the State minimums and that the Project did not cause any significant change to DO in the area downstream of the Project. The Project Exemptee was released from having to conduct further testing on January 31, 1991 as evidenced by a copy of the Interior and CT DEP letters inserted below.

Since upstream industrial sites closed down or were ordered to meet clean water standards and the towns along the river implemented modern sewage treatment facilities, the rivers health has improved dramatically.

A search for the latest State of Connecticut water quality report revealed the **2008 State of Connecticut Integrated Water Quality Report**. The document has been established pursuant to the requirements of Sections 305(b) and 303(d) of the Federal Clean Water Act.

The report can be accessed through the following link found in the footnote at the end of this section[1]

A search of the report for the term "French River" revealed the following relevant information for the location upstream of the Project and downstream to the confluence of the Quinebaug River:

State of Connecticut 2008 305(b) Assessment results

ID 305(b):	CT3300-00_01
Name:	French River
Location:	From mouth at the confluence with the Quinebaug River (just due south of West Thompson Flood Control dam), upstream to North Grosvenordale Pond outlet dam, Thompson, CT
Miles:	4.61
Aquatic Life:	**Full**
Recreation:	**Full**
Fish Consumption:	**Full***

Use Support: FULL=Designated use supported; **NOT**=Designated use Not Supported, See 303d listing for details. **U**=Unassessed, data not sufficient for assessment. **FULL***=Refer to Connecticut Department of Environmental Protection Angler's Guide, or online at www.ct.gov/dep for more information about fish consumption advisories.

The French River did not show up on the 303(d) list of impaired waters.

The Town of Thompson's Together coalition, along with the Massachusetts-based French River Connection and other watershed stakeholders, continue action strategy development for water quality and watershed issues along the French River, and across State boundaries. Existing state and federal agency water monitoring data continues to be shared. Connecticut DEP provided some Section 319 NPS funds to the Quinebaug-Shetucket Heritage Corridor Water Subcommittee Coordinator to fund necessary water quality equipment for a citizen monitoring project in Thompson, CT, while the Coordinator also obtained funding support for the Commonwealth of Massachusetts to obtain water quality

[1] http://www.ct.gov/dep/lib/dep/water/water_quality_management/305b/2008_final_ct_integratedwqr.pdf

monitoring equipment for citizen monitoring work in the Dudley, Oxford and Webster, MA communities within the French River watershed. Data collected within Thompson was provided to CT DEP Water Monitoring program for integration in the upcoming Connecticut 2010 Integrated Water Quality Assessment report.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
400 RALPH PILL MARKETPLACE
22 BRIDGE STREET
CONCORD, NEW HAMPSHIRE 03301-4901

Ref: FERC No. 9611 January 31, 1991

Mr. Robert King
Saywatt Hydro Associates
P.O. Box 203
N. Grosvenordale, CT 06255

Dear Mr. King:

This letter is in response to the Dissolved Oxygen Monitoring Report dated November 26, 1990 for the Mechanicsville Project, located on the French River in Windham County, Connecticut.

The report indicates no significant decrease in dissolved oxygen caused by project operations during the 1 year of monitoring. Although this data is for only one year, the Connecticut Department of Environmental Protection (DEP) indicates that this data plus the general improvement in water quality in the French River reduce their concern regarding adverse water quality impacts of the project. The DEP states that it does not see a need for further monitoring. We concur with this conclusion.

If you have any questions, please contact Mr. John Warner of this office at (603) 225-1411.

Sincerely yours,

Gordon E. Beckett

Gordon E. Beckett
Supervisor
New England Field Offices

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF ENVIRONMENTAL REVIEW

January 3, 1991

Mr. Bob King
Saywatt Hydro Associates
P.O. Box 203
North Grosvenordale, Connecticut 06255

Dear Mr. King:

Staff of the Planning and Standards Division of the Water Management Bureau have reviewed the results of the dissolved oxygen (D.O.) monitoring program submitted by Saywatt Hydro Associates for the Mechanicsville Hydroelectric Project on the French River, sent with accompanying transmittal letter dated November 26, 1990.

These lab results showed there were no dissolved oxygen concentrations recorded below 7.0 mg/l within the project area. Based on the recorded D.O. concentrations and the current operational mode of the facility (whereby the project is shut down during the low flow periods which are most critical to water quality), DEP concurs with your report's conclusion that further monitoring of dissolved oxygen concentrations at the Mechanicsville Hydro Project is unnecessary and that the monitoring program be discontinued.

Sincerely,

Mabel Chin
Senior Environmental Analyst

Phone:
165 Capitol Avenue • Hartford, Connecticut 06106

APPENDIX C

Mechanicsville Hydroelectric Project

Fish Passage and Protection

The facility is in compliance with mandatory fish passage prescriptions for passage of migratory and anadromous fish issued by resource agencies after December 31, 1986.

Section 18 of the Act provides the Secretary of Interior the authority to prescribe fishways.[2] Although fish passage facilities were not recommended by the CT Department of Environmental Protection (DEP) or Interior at the time the Project was given the order granting exemption from licensing, the Commission included articles which reserve Interior's prescription authority. The FERC recognized that future fish passage needs and management objectives cannot always be predicted at the time of granting the exemption from licensing. Therefore, the order granting exemption from licensing issued for this Project were conditioned to reserve the DEP and Interior's authority to prescribe fishways.

Future Fish Passage: Interior and DEP have stipulated conditions that would require the Exemptee to provide future fish passage facilities at the Project when requested by these agencies. There are no migratory or anadromous fish presently using the French River. Restoration of anadromous fish in this river system by Interior and the DEP, however, could be expanded in the future to include the Project area. Adherence to the condition stipulated by the agencies would provide for construction of fish passage facilities at the Project, thereby ensuring that the Project structures and operation do not adversely impact anadromous fish resources.

The French River is a tributary of the Quinebaug River, which joins with the Shetucket to from the Thames River Basin (TRB). The FWS and the DEP indicate that inadequate fish passage facilities preclude restoration of anadromous fishes, including the alewife, and American shad in the French River at the current time. These species were historically common in the Thames River and lower parts of the Quinebaug. They may also have occurred in the upper Quinebaug and French

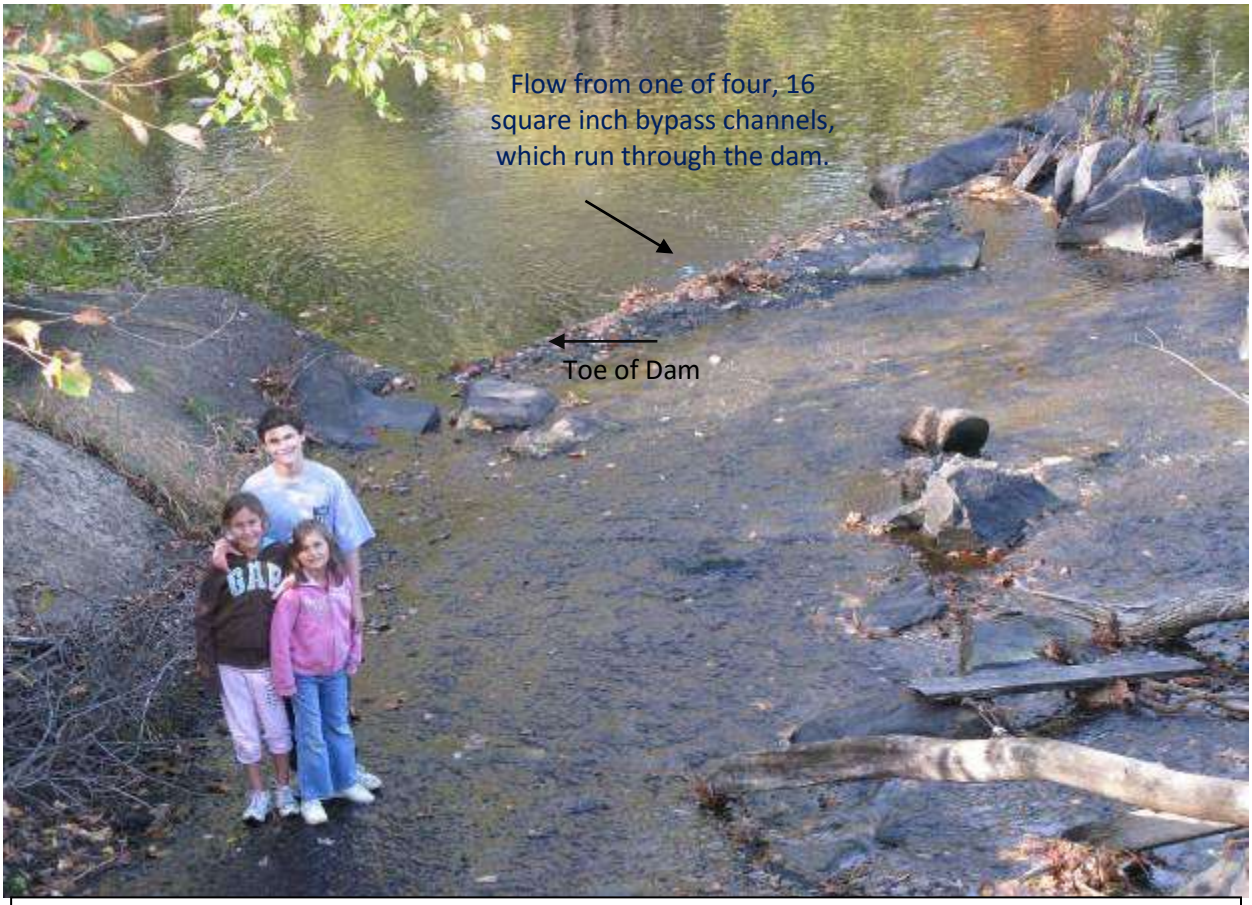
[2] Section 18 of the Federal Power Act provides: "The Commission shall require construction, maintenance, and operation by a licensee at its own expense ... such fishways as may be prescribed by the Secretary of Commerce or the Secretary of Interior as appropriate."

although there is controversy over anadromous fish passage above the naturally occurring Cargill Falls, located downstream of the Project on the Quinebaug in Putnam, CT.

Several federal and state resource agencies, principally the FWS and the DEP, are currently restoring anadromous fish to the TRB. The potential for restoration of anadromous fish in the TRB has recently improved due to improvements in water quality. The restoration effort includes, in part, the addition of fish passage facilities on the lower Thames River. The installation of fish passage facilities in the TRB is being coordinated on a river-wide basis, with efforts to date primarily centered on the Thames River in the location of Norwich, CT where the greatest need exists.

Current efforts to restore anadromous fish to the TRB are focused many miles downstream on the Thames River. FWS and the DEP have stated that they have no fishery management plans that would require fish passage in the Project vicinity in the near future. They have stated that it could be 25 years before fish passage would become an issue in the Project area.

Mechanicsville Dam, Downstream Side.
Notice that the short plunge pool / bypass reach water is in communication with the tailrace water even during this low flow period (< 5cfs) in the late summer of 2010.



The Mechanicsville Dam, downstream left side during < 5 cfs flows on the French River. Notice that the dam is very gently sloping making it easier for aquatic life forms to ascend and descend to and from the upper impoundment.
This will also aid in future fish restoration efforts should they arise.

Mechanicsville Hydro's forebay and intake area.
This Project was originally designed for and operated at 750 kW. It handled flows of approximately 800 cfs through these structures. Today, the Quinebaug River no longer is diverted into the Project's impoundment on the French River. Therefore, due to the generous overdesign, less than 330 cfs flow through this area at less than 1 foot per second.

APPENDIX D

Mechanicsville Hydroelectric Project

Watershed Protection

The facility is in compliance with both state and federal resource agencies recommendations for an approved shoreland management plan regarding protection, mitigation or enhancement of shorelands surrounding the Project.

The original order granting exemption from licensing required a wetland study to assure that the watershed surrounding the Project would be protected. The Exemptee submitted a wetlands monitoring plan, which was approved by the FERC on September 28, 1992 as evidenced by the letter below.

The results of the wetlands study showed no adverse effects resulting from the Project's operations. The Exemptee was released from further studies.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

SEP 2 8 1992

Project No. 9611-011--Connecticut
Mechanicsville Project
Saywatt Hydro Associates

Mr. Bob King
Saywatt Hydro Associates
P.O. Box 203
N. Grosvenordale, CT 06255

Dear Mr. King:

This acknowledges receipt of the wetlands monitoring report filed on March 13, 1992, for the Mechanicsville Project. The report fulfills the requirement of ordering paragraph B of our January 23, 1990 Order Approving Wetlands Monitoring Plan with Modification.

The Town of Thompson's Together coalition, along with the Massachusetts-based French River Connection and other watershed stakeholders, continue action strategy development for watershed issues along the French River. A Connecticut DEP Section 319 grant agreement with USDA-NRCS was executed to design and develop community support and participation in a riparian buffer project on a highly visible municipal parcel along the French River, with the project completed in 2008. Trained town volunteers initiated riparian plantings in 2008. In 2009 NRCS successfully completed the French River Riparian Buffer Demonstration Project in Riverside Park along the French River. Final planting design led to town installation of a rain garden collecting runoff from a small park gazebo, 1000 feet of riparian area plantings of native perennials, shrubs and trees, interpretive signage and recreational amenities including pet waste collecting stations, picnic benches and a river fishing access site. Trained town volunteers and town maintenance staff continued raising funds to extend riparian plantings twice in 2009 and to extend the adjacent park walking trail to connect to the towns nearby Community Center. The town is considering additional stream corridor enhancement proposals identified in the final report's streamside assessment report.

The red outline represents the Project owned area. The Project owns 7 acres of previous industrial mill property, which has been restored and preserved as riparian wilderness.

APPENDIX E

Mechanicsville Hydroelectric Project

Threatened and Endangered Species Protection

There are no threatened or endangered fish species listed under state or federal Endangered Species Acts present in the facility area and/or the downstream reach. (A website link to a list of threatened and endangered species for Windham County, CT can be found in the footnote at the end of this Appendix).[3]

During the Exemption process, it was determined that no further consultation with FWS under Section 7 of the Endangered Species Act is required. The FERC also concluded that continued Project operation is not likely to affect adversely any federally listed or proposed threatened and endangered species.

[3] The Connecticut Department of Environmental Protection maintains a list of threatened and endangered species on its website http://www.ct.gov/dep/lib/dep/endangered_species/species_listings/windhamctyspecies.pdf. The following fish species are listed as special concern but not threatened or endangered.

Scientific Name	Common Name	Protection Status
Enneacanthus obesus	Banded sunfish	Special Concern
Notropis bifrenatus	Bridle shiner	Special Concern

APPENDIX F

Mechanicsville Hydroelectric Project

Cultural Resource Protection

The facility in compliance with all requirements regarding cultural resource protection, mitigation or enhancement included in its FERC license. In view of the results of discovery efforts and the SHPO's determination, the FERC found that the Project would have no effect on any structure, site, building, district, or object listed in or eligible for listing in the National Register.

The State Historic Preservation Officer (SHPO) recommended that the then applicant survey this area sufficiently to determine whether there would be any historic remains. Based on the SHPO's recommendation, a survey was conducted for the then applicant in the areas that would be affected by the proposed site. Besides the dam and powerhouse, which have been reconditioned in accordance with the National Park Service's "Standards for Rehabilitation," no archaeological materials were found other than the ruined remains of a nineteenth century textile mill, which was destroyed by fire during a flood in 1955. The Project has avoided and has no impact on said remains.

The current owner is collecting pictures of the historic Project from before the flood through the rehabilitation period in the 1980s up until the present. These pictures will be assembled into a photo montage, a copy of which will be donated to the local library and historical society.

Below is a copy of the letter from the FERC indicating that the SHPO and the FERC determined that the proposed Project would have no effect upon any structure or site of historic, architectural, or archaeological significance as defined by the National Historic Preservation Act of 1966.

The adjacent Textile Mill during the 1955 flood. Notice the fire damage on the right side. The Mill has been removed and only remnants of the foundation remain under the forest floor, which has over grown the site.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

Project No. 9611-001-Connecticut
Mechanicville Project
Saywatt Hydro Associates

Mr. Don Klima
Advisory Council on Historic
Preservation
The Old Post Office Building
1100 Pennsylvania Avenue, N.W. #809
Washington, D.C. 20004

Dear Mr. Klima:

Saywatt Hydro Associates (applicant) has filed an application for an exemption from licensing to construct and operate the Mechanicville Project, a hydroelectric facility along the French River in Windham County, Connecticut. The project would be located within the immediate vicinity of a former hydroelectric facility and nineteenth-century mill ruins (sites) that the Connecticut State Historic Preservation Officer (SHPO) has determined are eligible for inclusion in the National Register of Historic Places.

The SHPO has stated, and staff concurs, that the project would not have an adverse effect on the historical integrity of the sites if certain mitigative measures itemized by the SHPO in a letter to the applicant dated November 25, 1986, are implemented. If the Advisory Council on Historic Preservation concurs, the staff will recommend that these measures be included as a condition of any exemption issued for the project, and that these measures be implemented in a manner acceptable to the SHPO.

Please provide your comments on the effect of the project on the sites within 20 days of the date of this letter. Enclosed to facilitate your review is the application for an exemption from licensing. The application contains the SHPO letter dated November 25, 1986. If you have any questions, please contact Dr. Edwin D. Slatter, staff archeologist, at (202) 376-1762.

Sincerely,

Dean L. Shumway
Director, Division of
Environmental Analysis

Enclosure

APPENDIX G

Mechanicsville Hydroelectric Project

Recreation

The Project is in compliance with the terms for recreational access in its FERC order granting exemption from licensing. The Project does allow access to the surrounding pond and downstream reaches without fees or charges.

In the order granting exemption from licensing back in 1988, the conclusion was that due to poor water quality, there were limited on-water recreational activities such as fishing or boating. However, the water quality of the French River has improved dramatically over the years since the application. According to the latest Connecticut water quality report, the French River is no longer considered impaired and recreational use is no longer limited.

Terrestrial Access: The Providence and Worcester Railroad (P&WRR) and a causeway running across the US Army Corps West Thompson flood control dam create uncontrollable boundaries, which prohibits easy access to the Project area. Terrestrial access to the Project area is controlled via a locked railroad crossing gate maintained by the P&WRR. Beyond the gate, the 800 feet long driveway, effectively screen out all but the most curious. There are local fishermen and their families, who enjoy access to the Project area and river. Visitors brave enough to traverse the barriers are welcome to visit the Project area. A public access area is provided upstream of the railroad bridge as shown in the photos below.

Aquatic Access: The P&WRR bisects the pond upstream of the Project dam, creating a boundary, which prohibits aquatic access to the Project area. Boaters are prevented from approaching the spillway and intake by the West Thompson road causeway and the P&WRR bridge. The clearance between the causeway and bridge girders and the water surface prevent passage of canoes, kayaks and rowboats into the ponds upstream of the Project spillway.

However, public access is available on the southeast side of the Project impoundment, just upstream from the railroad bridge. It provides boaters access to the water via a boat ramp and fishermen along with sightseers have ample parking spaces and picnic tables to enjoy the beauty of the surrounding wetlands. And for those brave enough to cross the railroad tracks or traverse the US Army Corps'

land, dirt roads do provide access to the dam and powerhouse located several hundred feet in the wooded area. Once they arrive on the Project site, they will be treated to a dam that has an 8 foot wide concrete bridge connecting the Project side of the French River to the USACE side. This is a favorite spot for local fishermen. The current Exemptee advises caution to those willing to traverse the railroad tracks or perch themselves on the dam but does not charge access fees or restrict access to the site. The dirt roads, riverside trails and dam bridge provide access to those wishing to portage a canoe or kayak downstream of the Project site.

The Town of Thompson received a Connecticut Department of Environmental Protection Recreational Trail Grant award for Phase 1 of the Air Line Trail Improvement Plan covering a 2.3 mile section of the state rail-trail project in northeastern CT. Improved trail conditions will lead to increased public access to, and managed uses of resources along the trail, including the previously underappreciated French River.

Children enjoying a picnic on the bridge, which crosses the Project dam.

The Providence & Worcester Railroad Bridge bisects the Project pond.
Note: This photo was taken during very low flows this past September 2010. Normally the water level is higher making boat access to the lower pond impossible.

Children fishing and playing near the toe of the dam.

PUBLIC ACCESS FOR MECHANICSVILLE POND

Public Access to the Mechanicsville Pond upstream of the RR Bridge
Parking, Picnic Area, Boat Launch & Fishing Access

A view of the public access to the Mechanicsville Pond
Looking upstream of the RR Bridge

APPENDIX H

Mechanicsville Hydroelectric Project

Facilities Recommended for Removal

There is no resource agency recommendation for removal of the dam associated with the Project.

END