

Memorandum

To: Michael Sale, Senior Technical Advisor, LIHI
From: Jeffrey Cueto, P.E.
Date: April 6, 2017
Re: Automatic Hydroelectric Project – LIHI Certificate #72
Recertification Request

This memorandum contains the results of my review of the recertification request for the Automatic Hydroelectric Project (Project), located in Kennebec County, Maine, on the Messalonskee Stream, which flows from Messalonskee Lake (Snow Pond) in Oakland and empties into the Kennebec River in Waterville, 2.3 miles below the Waterville-Winslow bridge. The Project dam is located within the city limits of Waterville at River Mile 2.6. The facility is owned by the Kennebec Water District (Applicant or District) and was licensed as Project No. 2555 by FERC on July 28, 1999. There are three other operating hydroelectric projects on this river owned and operated by Messalonskee Stream Hydro, LLC. They are Oakland (FERC No. 2556) and Rice Rips (FERC No. 2556), both located upstream, and Union Gas (FERC No. 2556), located downstream.¹ LIHI publicly noticed the application for recertification on August 5, 2016, with comments due by October 7, 2016. No comments were filed in response to this formal notice.

The Project was originally certified on May 26, 2011 for a five-year term extending from February 14, 2011 through February 14, 2016.² Certification was subject to one special condition related to the passage of American eel. The certification term has been extended several times to accommodate the recertification application review; the present termination date is June 30, 2017.

I. Recertification Review Standards.

In 2016, LIHI began reviewing new applications, both initial applications and recertification applications, under a revised set of criteria and an updated process, all outlined in the Low Impact Certification Program 2nd Edition Handbook (March 7, 2016). Section 6 of the Handbook addresses the recertification process, which is comprised of two stages. Under Stage I, LIHI can expeditiously recertify a project if it has a complete application and finds that there is neither a material change in the criteria or process or a material change in the facility that may affect conformance with the

¹ These three facilities are also LIHI certified as numbers 60, 59, and 58, respectively.

² The reviewer report from 2011 is available at http://www.lowimpacthydro.org/assets/files/Automatic_text/Automatic_LIHI_review.pdf

criteria. If a material change determination is made, then the application moves to Stage II for a full review under the criteria. Since the Project has not previously been subject to review under the new Handbook criteria and because that fact alone constitutes a

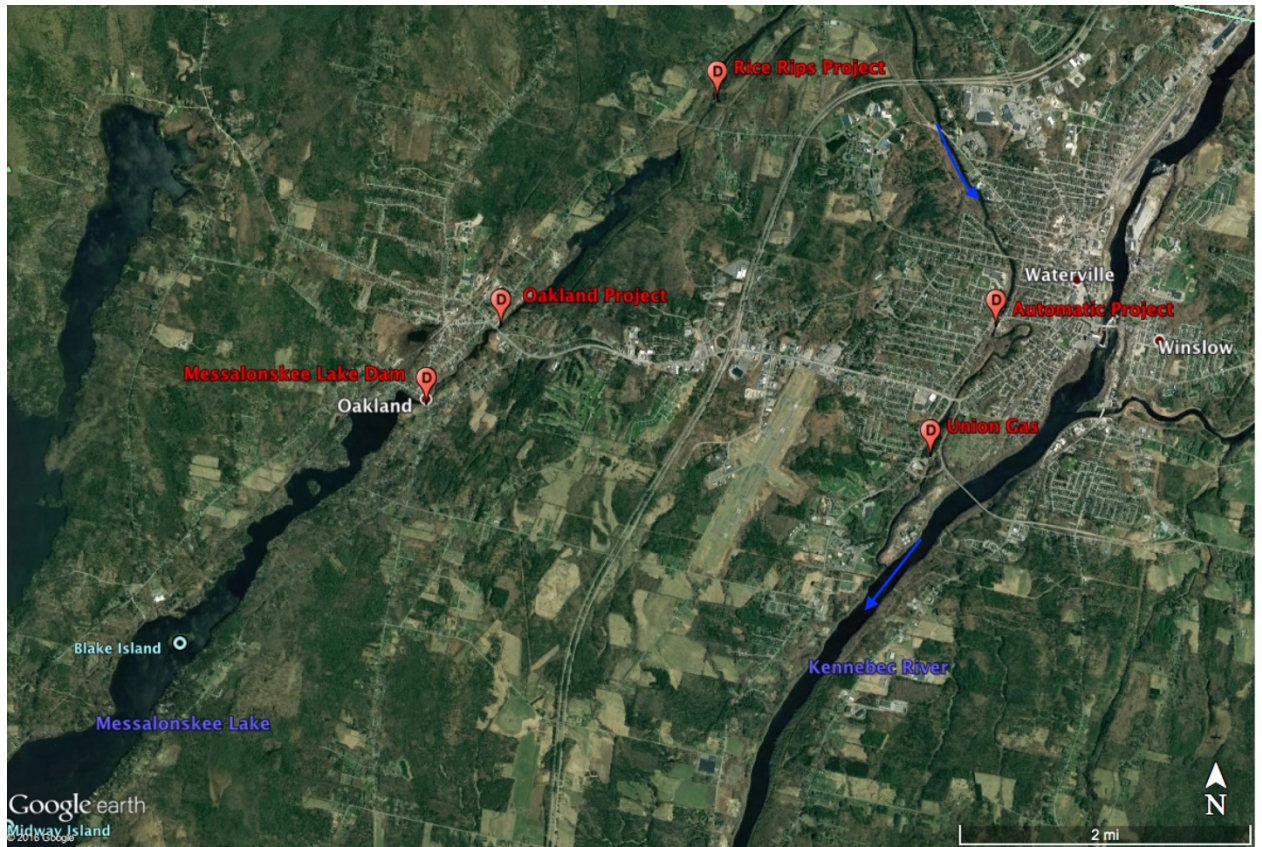


Figure 1. Project location.

material change, the application is subject to a Stage II full review under the revised criteria. The scope of review as described in the Handbook is:

The Stage II recertification review involves a complete review of the application package, a search of public records associated with the facility, and all other necessary inquiries (e.g., to resource agencies and local non-governmental organizations) to resolve factual disputes, evaluate the veracity of claims, or make other inquiries as needed. The application reviewer also reviews and summarizes all public comments received.

...

At the conclusion of the full, Stage II review, the application reviewer will produce a detailed reviewer's report similar to that issued for an initial certification and make a recommendation to the Executive Director as to whether LIHI's criteria are still met by the facility, in light of the material change and/or the change in LIHI's criteria or interpretation.

The applicant has indicated that the physical plant and its operation have not materially changed since first certified in 2011; however, it has installed instrumentation and controls enabling remote operation and has built upstream passage facilities for American eel as planned in 2011.

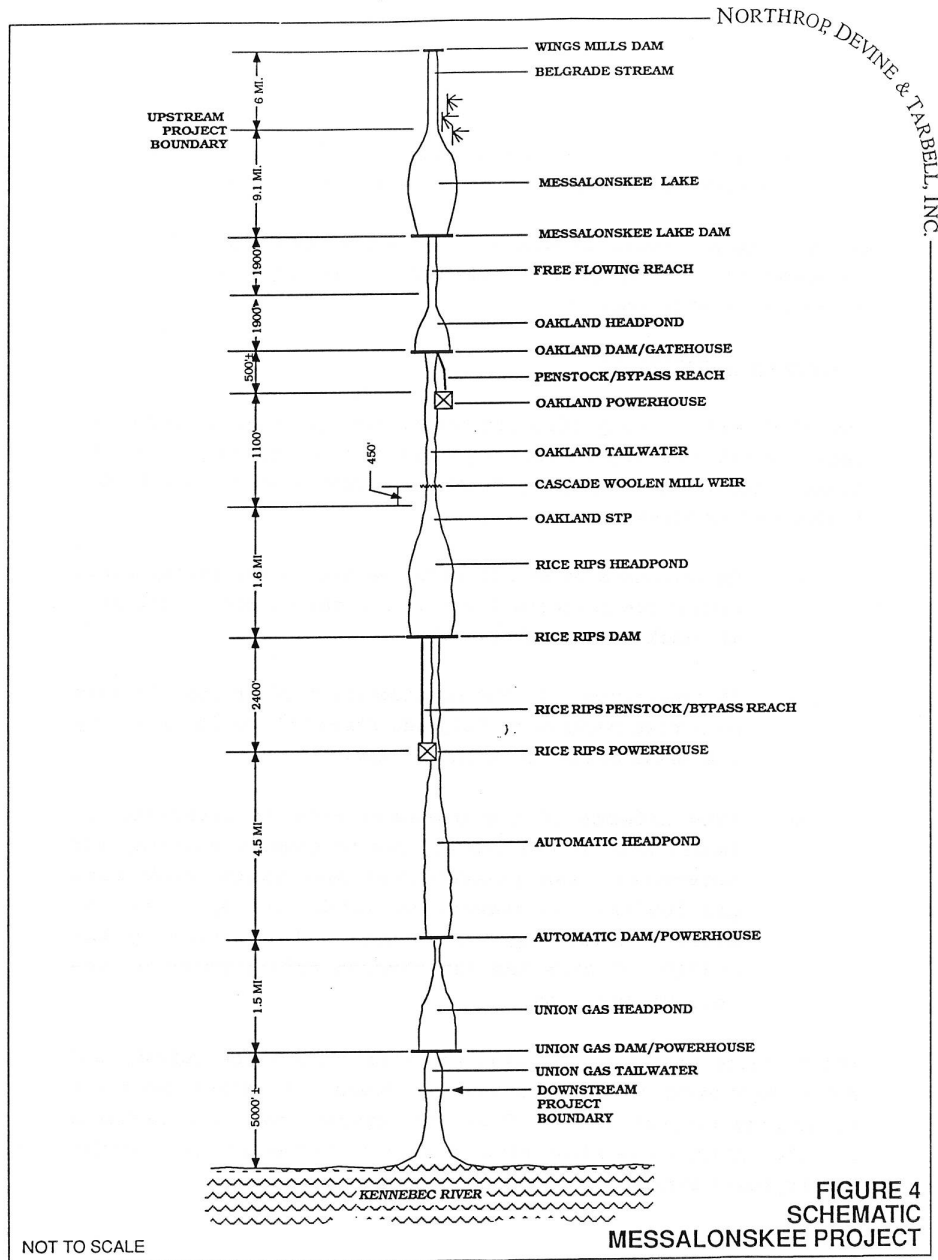


Figure 2. Schematic of the Messalonskee Stream dam system. (Fishery Resources of the Messalonskee Project, Northrup, Devine & Tarbell for Central Maine Power, December 1990)

II. Summary Recommendation.

Based on my review of the record, including the original LIHI reviewer report from 2011 and the files contained in FERC eLibrary and entered subsequent to the last certification review, as well as consultation with several resource agencies, I recommend that the Automatic Project be recertified for the standard period of five years, subject to three conditions to address water quality and fish passage:

Issue 1: A water quality study required by the original license and by the Maine Department of Environmental Protection (MDEP) water quality certification does not appear to have been completed, and there is insufficient information available to determine affirmatively that the Project does not cause, or contribute to a violation of water quality standards.

Condition: The Owner shall complete water quality sampling during summer 2017 under a study plan approved in advance by the Maine Department of Environmental Protection (MDEP) and following MDEP's Lakes, Ponds, and Impoundments Trophic State Study and Rivers and Streams Temperature and Dissolved Oxygen Study protocols. A copy of the final study plan shall be filed with LIHI within 30 days of MDEP approval. The data and study report shall be filed with MDEP and LIHI by December 31, 2017. If the Automatic Project is determined to be causing, or contributing to, substandard water quality, a remediation proposal, including an implementation schedule, shall be developed in consultation with MDEP and filed with LIHI by April 1, 2018. Otherwise, the Owner shall file review comments/recommendations from MDEP by the same date. LIHI may suspend certification or further condition the certification based on the study findings or recommendations of MDEP.

Issue 2: In order to address the LIHI upstream fish passage criteria, upstream passage of American eel must continue to be accommodated. Facilities are in place pursuant to the original LIHI certification, but are not a formal regulatory requirement.

Condition: The Owner shall continue to operate and maintain safe, timely, and effective upstream passage facilities for American eel at Automatic dam in coordination with the Maine Department of Marine Resources (MDMR) and the U.S. Fish and Wildlife Service.

Issue 3: Downstream passage facilities have been deferred, but may be triggered in the future based on continuing Maine Department of Marine Resources (MDMR) population monitoring.

Condition: On the Owner's Annual Compliance Statements, the Owner will update LIHI on the status of downstream eel passage at the site. The Owner will notify LIHI within 45 days when MDMR determines there is a sufficient number of eel present in the river to conduct the studies needed to determine the best location to install downstream passage. A summary of those study results, along with a MDMR-

approved plan and schedule for downstream eel passage installation, shall be included in that year's Annual Compliance Statement.

III. Standards Review

Criterion A - Ecological Flow Regimes

Goal: The flow regimes in riverine reaches that are affected by the facility support habitat and other conditions suitable for healthy fish and wildlife resources.

Review: The Automatic Project and the other three facilities on Messalonskee Stream were originally owned by Central Maine Power, which transferred ownership in the 1990s to the present licensees. Messalonskee Stream Hydro LLC, owner of the other three facilities, is a subsidiary of Essex Hydro, which operates the Automatic Project under a 2010 operating agreement with the District (LIHI application, Appendix 11). The agreement recognizes the shared interests of the parties in operating all of the facilities in a coordinated manner. Essex Hydro manages outflows from the dam on Messalonskee Lake cycling lake storage to optimize downstream generation. Messalonskee Lake is managed to provide a generation outflow of approximately 570 cfs. During periods when lake storage is being replenished, all four projects are required to release 15 cfs pursuant to the conditions of the water quality certifications. At Automatic, the minimum flow is provided by gate leakage. The Applicant characterizes the operation as run-of-river as it does not operate out of impoundment storage; the 4.5-mile-long impoundment is maintained within one foot of full pond (elevation 94.3 feet msl). There is no bypassed reach.

Hydroelectric facilities can be considered to qualify under the Ecological Flow Regime standard as *de minimis* impact if “[t]he Facility operates in a true run-of-river operational mode and there are no bypassed reaches or water diversions associated with the Facility...” (Handbook, Section 3.2.1). *Run-of-River* is defined in the Handbook as, “For the purposes of this handbook, a facility is operated in a run-of-river mode if the outflow of the facility is within reasonable measurement accuracy (plus or minus 10 percent) of the inflow to the facility, measured on an hourly basis. This level of alteration is estimated to have a low risk to ecosystem flow needs (Richter et al. 2012).”



Figure 3. View of the dam from across the tailpool.

Messalonskee Stream flows are managed in a store-and-release mode. The historical leakage from Messalonskee Lake dam was on the order of 12-15 cfs according to the Messalonskee Project water quality certification issued on August 28, 1995. During the summer, the lake is drawn up to half a foot (June 1 – August 31), and during the remainder of the year, up to one foot; the limits are certification requirements. The certification indicates that, during summer periods, there may only be sufficient water to operate for a single 8-hour cycle each week.

Based on best available information, there is a free-flowing section of river between the Automatic tailrace and the Union Gas headpond as shown in Figure 3. In the report, *Fishery Resources of the Messalonskee Project* (Central Maine Power, 1990), the reach is described as “...a large (approximately 300 ft long), deep pool where the stream bends 90 degrees...followed by a 200 ft riffle section that leads into the Union Gas impoundment at the oxbow.”

Since Essex Hydro manages flows in Messalonskee Stream, I recommend LIHI consider the Automatic facility as qualifying as *De Minimis* at this time and completing a more thorough review of conservation flow issues when the other three projects come in for recertification in 2020 under the newer Handbook.³ The federal licenses contained a requirement to release 100 cfs as a minimum flow based on recommendations of the U.S. Fish and Wildlife Service (USFWS). The requirement was challenged by Essex Hydro, and FERC issued an order on rehearing (October 12, 2000) reducing the

³ The last recertification review for the other three projects was somewhat limited as the material-change circumstance was not triggered.

requirement to 15 cfs for Essex Hydro's three facilities.⁴ The water quality certification for the Messalonskee Project goes into a fair amount of detail about the flow management decision and concluded, "The applicant's proposals to provide a minimum flow of 15 cfs below all of the project developments, including 15 cfs in the Rice Rips bypass, restrict water level fluctuations in Messalonskee Lake, Rice Rips Lake, and the Oakland, Automatic, and Union Gas impoundments, and to implement a new downramping sequence at the Union Gas development appear to be adequate to achieve and maintain suitability of the project waters affected by the project as habitat for fish and other aquatic life." The water quality certification does not make note of the Automatic tailrace reach having any particular importance as habitat.

Appended is March 27, 2017, email from the USFWS accepting the 15 cfs based on FERC's argument put forward in the order on rehearing.

While FERC license Article 403 and the water quality certification require monitoring of headpond levels and minimum flows, the FERC order approving the monitoring plan (August 9, 2000) eliminates the obligation to monitor flows, concurring with the Districts argument that it cannot control flows as it operates run-of-river and has a small headpond. The District does monitor and record headpond levels. Assuming the headpond levels are maintained within the allowed band and that leakage consistently releases no less than 15 cfs, compliance should be assured. The District provided LIHI with headpond level data showing that deviations from the band limits are very infrequent. The license and water quality certification allow deviations under certain circumstances, such as emergencies or equipment malfunctions.



Figure 4. Apparent reach between the Automatic tailrace and the Union Gas headpond.

⁴ The eLibrary record did not have any documentation that the minimum flow at the Automatic Project had been similarly reduced by FERC order. The Applicant's representative confirmed this by email dated April 6, 2015 (appended).

Conclusion: The Ecological Flow Regime Standard A-1 (*De Minimis*) is met in the impoundment zone by default and in the downstream zone.

Criterion B - Water Quality

Goal: *Water Quality is protected in waterbodies directly affected by the facility, including downstream reaches, bypassed reaches, and impoundments above dams and diversions.*

Review: MDEP certified the Project under Section 401 of the federal Clean Water Act on August 29, 1995 as part of Central Maine Power's Messalonskee Project. The certification incorporates a condition requiring a follow-up water quality sampling program to confirm that Messalonskee Stream is meeting dissolved oxygen standards and Rice Rips Lake is meeting trophic-state standards, with a continuing jurisdiction reservation to order modifications to the Messalonskee Project and/or the Oakland wastewater treatment plant, if necessary. The Automatic Project license, Article 406 requires sampling over a 5-year period and reporting back to FERC upon the conclusion of the study and agency consultation.

Messalonskee Stream (10.27 miles, Assessment Unit ID ME0103000305_323R) is listed as a Category 2, *Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses* in MDEP's 2014 Integrated Water Quality Monitoring and Assessment Report (305(b) Report).⁵ The river is not Section 303(d) listed as impaired.

As shown in the appended email string, the water quality sampling study may not have been completed or the results are simply missing. FERC eLibrary does not include an Article 406 filing for the final study report, and MDEP could not find a record of the study having been finished. MDEP, however, did indicate that it had previously reviewed sampling data from 2001-03 and found that the 2001-02 data showed substandard dissolved oxygen levels and that the 2003 data was unusable since the collection protocol had not been followed. Although MDEP had requested continued data collection in 2004, neither the District nor MDEP could determine whether that had occurred. Consequently, MDEP asked that additional sampling occur this summer so that a determination can be made as to whether standards are being met (email of April 5, 2017):

Monitoring for a minimum of one summer is needed following the Lakes, Ponds, and Impoundments Trophic State Study and Rivers and Streams Temperature and Dissolved Oxygen Study in DEP's Sampling Protocol for Hydropower Studies (attached). A study plan should be submitted to DEP for review and approval prior to monitoring.

⁵ <http://www.maine.gov/dep/water/monitoring/305b/2014/2014report-final.pdf>

<http://www.maine.gov/dep/water/monitoring/305b/2014/2014appendices-final.pdf>

Monitoring should be conducted at Gagnon County Road, M4, and a station immediately below the dam.

The District has agreed to complete the sampling. It should be noted that the Oakland wastewater treatment facility, which formerly discharged upstream of the Automatic Project, now discharges into the Kennebec River via the Waterville wastewater treatment facility. An improvement in water quality would be expected to be shown in the sampling.

MDEP confirmed by email of April 6, 2017 (appended) that the Project is complying with its water quality certification, setting aside the water quality study issue.

Conclusion: The Water Quality Standard B-2 (Agency Recommendation) is met in both zones as the Project is operating consistent with the 1995 water quality certification if subject to the following recommended condition:

The Owner shall complete water quality sampling during summer 2017 under a study plan approved in advance by the Maine Department of Environmental Protection (MDEP) and following MDEP's *Lakes, Ponds, and Impoundments Trophic State Study and Rivers and Streams Temperature and Dissolved Oxygen Study* protocols. A copy of the final study plan shall be filed with LIHI within 30 days of MDEP approval. The data and study report shall be filed with MDEP and LIHI by December 31, 2017. If the Automatic Project is determined to be causing, or contributing to, substandard water quality, a remediation proposal, including an implementation schedule, shall be developed in consultation with MDEP and filed with LIHI by April 1, 2018. LIHI may suspend certification or further condition the certification based on the study findings or recommendations of MDEP.

Criterion C - Upstream Fish Passage

Goal: The facility allows for the safe, timely, and effective upstream passage of migratory fish. This criterion is intended to ensure that migratory species can successfully complete their life cycles and maintain healthy, sustainable fish and wildlife resources in areas affected by the facility.

Review: Based on the earlier certification review, there is an absence of historical evidence of significant use by anadromous fish that are currently the subject of restoration efforts in the area (e.g., alewife and American shad) and there is very limited rearing and spawning habitat in what remains unimpounded. The reviewer report indicated that MDMR believed that passage is unwarranted for the two anadromous species, Atlantic salmon and blueback herring, that may be present below Union Gas dam. On the other hand, the report indicated that catadromous American eel persist in significant numbers despite the lack of passage facilities, and MDMR recommended eel passage at all four hydroelectric dams and the Messalonskee Lake dam in order to provide "appropriately protective" conditions for eel. Consequently, the LIHI certification for the Automatic Project was issued subject to the provision of eel passage facilities:

Within 12 months of the date of issuance of the LIHI certification for the Automatic facility, the applicant shall present to LIHI a copy of an agreement with the Maine Department of Marine Resources and the US Fish and Wildlife Service (“Agencies”) in which the applicant and agencies have reached agreement on the final design, construction, operations, and maintenance of safe, timely, and effective upstream and downstream passage for American eel at the Automatic facility, along with a similar agreement executed between the owners of (a) the Union Gas facility and (b) the Messalonskee Lake outlet dam (owned by Messalonskee Stream Hydro, LLC, and the agencies for upstream and downstream passage for American eel at these two facilities as well. This 12 month deadline at the Automatic facility may be extended for an additional 6 months if the applicant can demonstrate to the agencies that field work necessary to determine the appropriate location and design of fish passage at the Automatic facility necessitates this extension. This agreement shall include a date to initiate construction of the required upstream and downstream passage at the Automatic facility that is the same date as installation required at the downstream Union Gas facility and the Messalonskee Lake outlet dam, unless the applicant can demonstrate to LIHI that such a deadline is infeasible, in which the deadline for construction at the Automatic facility shall be no later than 12 months after the date on which the agreement is reached.

By letter dated July 14, 2014, LIHI requested a status update as related to eel passage, noting that it did not have a copy of the passage agreement. I could find no response in the electronic files, and it is now my understanding that there is no written agreement. Further, the LIHI certification mandated both upstream and downstream passage facilities be operational no later than 2.5 years after issuance of the certification, or November 2013. Downstream passage facilities have not been installed as yet; however, the resource agencies do not object to extending the deadline. Presently, outmigrating eels are trapped at Messalonskee Lake dam and trucked downstream past the dams to the Kennebec River. Due to the low number eels trapped at the lake, MDMR is not seeking downstream passage at the individual dams at this time (appended memorandum from MDMR, April 6, 2017).



Figure 5. Eel ladder in place along left abutment.



Figure 6. View down the eel ladder from the deck.

With respect to upstream passage, the District submitted its design of a ladder passage system for USFWS and MDMR approval on January 26, 2012. The system was implemented and tested, then approved as permanent upstream passage by the agencies in July 2014; copies of the email approvals and the testing report are included in Appendix 6 of the application.

Conclusion: The Upstream Fish Passage Standard C-2 (Agency Recommendation⁶) is met in all three zones. The District has installed, and is operating, upstream passage facilities for the single migratory fish species present at the site, American eel. Since this is not a regulatory requirement, I recommend certification conditional on the following:

The Owner shall continue to operate and maintain safe, timely, and effective upstream passage facilities for American eel at Automatic dam in coordination with the Maine Department of Marine Resources and the U.S. Fish and Wildlife Service.

Criterion D - Downstream Fish Passage and Protection

Goal: The facility allows for the safe, timely, and effective downstream passage of migratory fish. For riverine (resident) fish, the facility minimizes loss of fish from reservoirs and upstream river reaches affected by Facility operations. All migratory species are able to successfully complete their life cycles and to maintain healthy, sustainable fish and wildlife resources in the areas affected by the Facility.

⁶ Note that technically this is not consistent with the LIHI definition for *Agency Recommendation* set forth in the Handbook; however, latitude in the interpretation is reasonable as the District has implemented and tested a science-based recommendation made by the two agencies. I would recommend, however, that consideration be given to incorporating passage into the federal license to make it a legal requirement.

Review: See discussion above on upstream passage.

Conclusion: The Downstream Fish Passage Standard D-2 (Agency Requirement) is met in all three zones. Migratory fish (American eel) are present, but downstream passage, which was required under the original certification, has been deferred based on low counts of outmigrating eels. In order to address a possible future need for downstream passage of eel, I recommend the following condition (consistent with the recent Union Gas certification):

On the Owner's Annual Compliance Statements, the Owner will update LIHI on the status of downstream eel passage at the site. The Owner will notify LIHI within 45 days when MDMR determines there is a sufficient number of eel present in the river to conduct the studies needed to determine the best location to install downstream passage. A summary of those study results, along with a MDMR-approved plan and schedule for downstream eel passage installation, shall be included in that year's Annual Compliance Statement.

Criterion E – Shoreline and Watershed Protection

Goal: *The Facility has demonstrated that sufficient action has been taken to protect, mitigate and enhance the condition of soils, vegetation and ecosystem functions on shoreline and watershed lands associated with the facility.*

Review: The Project boundary under the license is very limited. For the impoundment, the boundary as shown on the drawing in Appendix 4-1 appears to extend only from bank to bank, which would be an average width of 160 feet for the 4.5-mile length. There are no shoreland management plans required under the license.

Conclusion: The Shoreline and Watershed Protection Standard E-1 (Not Applicable) is met in both zones. There are no lands associated with the facility under the ownership and control of the Applicant that are subject to a shoreline management plans or similar protection, and the lands within the Project boundary are very limited in extent.

Criterion F - Threatened and Endangered Species Protection

Goal: *The Facility does not negatively impact listed species.*

Review: There are no listed species known to be present in the project vicinity, except for possible transients. Facilities directly upstream and downstream recently passed this criterion during their recertification process.

Conclusion: The Threatened and Endangered Species Protection Standard F-1 (Not Applicable/De Minimis Effect) is met in both zones. There are no listed species present in the facility area or downstream reach, and there is no evidence that the facility was responsible for the extirpation of any listed species that may have been present historically.

Criterion G - Cultural and Historic Resource Protection

Goal: The Facility does not inappropriately impact cultural or historic resources that are associated with the Facility's lands and waters, including resources important to local indigenous populations, such as Native Americans.

Review: Under License Article 409, the Project is subject to a cultural resources management plan. The Project powerhouse, dating from 1924, is eligible for listing on the National Register of Historic Places. The exterior appears to be remarkably intact based on the photograph in the LIHI records.

The Applicant provided documentation (letter of January 20, 2017, Appendix 8-1) from the State Historic Preservation Officer confirming that the District is in compliance with the 1993 programmatic agreement, which requires submission of information for a Section 106 review for all non-routine maintenance projects proposed for the powerhouse.



Figure 7. Automatic powerhouse.

Conclusion: The Cultural and Historic Resource Protection Standard G-2 (Approved Plan) is met at the Automatic Project as the facility is subject to, and compliant with, a cultural resources management plan, which includes protection of the historically important powerhouse.

Criterion H - Recreational Resources

Goal: The facility accommodates recreation activities on lands and waters controlled by the facility and provides recreational access to its associated lands and waters without fee or charge.

Review: The Project is subject to two license articles related to recreational use. Article 407 requires a plan showing current development; improved parking for public access; and monitoring and reporting of recreational use. Article 408 requires a monitoring plan to ensure that recreational use is being accommodated without harming wetlands and wildlife. The parking improvements were also a water quality certification requirement. FERC approved the District's recreation plan by order dated August 24, 2000, and parking lot upgrades were completed later that same year. In 2013, the District cooperated with the City of Waterville and others in the installation of a floating dock at the carry-in access on North Street.



Figure 8. North Street Carry-in Boat Launch and Dock.

Conclusion: The Recreational Resources Standard H-2 (Agency Recommendation) is met as the District has implemented improvements pursuant to a FERC-approved recreation plan and is continuing to monitor recreational use to ensure sufficiency and lack of significant environmental degradation pursuant to the terms of Article 408.

APPENDIX

From: Jeffrey Cueto <ompompanoo@aol.com>
Subject: Re: Automatic Project LIHI review
Date: April 6, 2017 at 11:15:47 AM GMT-4
To: Elise Anderson <eanderson@essexhydro.com>
Cc: Jeff LaCasse <jlacasse@kennebecwater.org>

Elise — Yes, I had sent emails to Gail and Steve Shepard, and Steve pretty much deferred to Gail. So I'm hoping to hear from her soon. This is pretty much the only outstanding item.

Regarding the minimum flow, I agree with your summary. It's not a substantive issue, but FERC should have amended the Automatic license to be consistent with the action taken on the other licenses. Administrative oversight apparently.

Jeff

On Apr 6, 2017, at 11:09 AM, Elise Anderson <eanderson@essexhydro.com> wrote:

Hi Jeff,

Thanks – Have you followed up with Gail directly on the eel issue?

I have been researching the chronology of events relating to minimum flow (Article 401) and the Automatic project (2555), as well as the other Messalonskee stream hydro projects (2556) to try and answer this question for you.

7/28/1999 – Order Issuing Subsequent License: the projects are separated into two separate licenses, Automatic – 2555 and Messalonskee Stream Hydro – 2556. Article 401 is to release a minimum flow of 100 cfs or inflow, whichever is less (except at no time shall minimum flows drop below 15 cfs).

8/9/2000 – Order Modifying and Approving Streamflow Monitoring Plan (attached) for Automatic Project 2555. This order describes the Automatic project as a run-of-river project, indicating that the licensee is unable to significantly increase or decrease the streamflow and is dependent upon flow releases from Messalonskee Lake and Oakland. Order indicates discussions with MDEP that the Automatic facility would not be required to monitor flow since they have no control over the overall flow. “As a result of the estimated leakage, the M4 Automatic facility cannot drop streamflow levels below 15 cfs” This language appears in the Water quality certificate (aka, cannot drop streamflow levels below 15 cfs)

10/12/2000 – FERC Order on Rehearing (also attached) -- modified Article 401 for the Messalonskee Stream development (2556) to require min flow of 15 cfs at all times. The order describes the FERC reasoning behind amending the min flow to be 15 cfs. (settlement agreement to change flows)

Although I cannot find an amendment of Article 401 for Automatic 2555, one may infer from the language in the 8/9/200 Order approving streamflow monitoring that Automatic must pass inflow and cannot drop below 15 cfs. There are also annual compliance statement filings that Automatic has complied with their min flow requirements over the years since these orders. If the projects upstream have amended minimum flow requirements, then the inflow to the project has changed – however the language in the Automatic license requires them to pass inflow, so they would not be in violation of this.

In 2002, the FERC regional office inspected the Automatic project. They note that the min flow releases at the project do not require any follow up action. The inspection report states “Article 401 requires the Licensee to release minimum flows of 100 cfs or inflow but not less than 15 cfs.”

Please let me know if this meets your needs. Let us know how you could like us to proceed here.

Elise

From: Jeffrey Cueto [mailto:ompompanoo@aol.com] Sent: Thursday, April 06, 2017 9:48 AM To: Elise Anderson Cc: Jeff LaCasse; Dr. Michael J. Sale Subject: Fwd: Automatic Project LIHI review

Hi, Elise. I'm waiting to hear back about eels from Gail W. I was also wondering whether you determined that the Automatic license was amended for the reduced minimum flow.

Thanks.

Jeff

Begin forwarded message:

From: Elise Anderson <eanderson@essexhydro.com>
Subject: RE: Automatic Project LIHI review
Date: March 23, 2017 at 4:30:21 PM GMT-4
To: Jeffrey Cueto <ompompanoo@aol.com>
Cc: "Dr. Michael J. Sale" <mjsale@lowimpacthydro.org>

Hi Jeff, I will look into the orders you are mentioning re: min flow and the sampling efforts, I will need to look in elibrary too when it comes back online and review files. And no, Essex is not planning on doing testing at the other hydro sites. I just forwarded you the request from DEP regarding testing at Automatic. Thanks, Elise -----Original Message----- From: Jeffrey Cueto [mailto:ompompanoo@aol.com] Sent: Thursday, March 23, 2017 8:51 AM To: Elise Anderson Cc: Dr. Michael J. Sale Subject: Automatic Project LIHI review Hi, Elise. I'm trying to finish my review and have a couple questions. FERC eLibrary is down today, so I couldn't dig into there for answers. I found a copy of the October 12, 2000, FERC order on rehearing that reduced the Messalonskee Stream minimum flows from 100 cfs to 15 cfs at the three Essex plants. Is there a separate order for Automatic? The order doesn't appear to amend the Automatic license. The 401 and license for Automatic required a 5-year water quality

sampling effort. Do you have FERC's order that followed the completion of the study? Your LIHI application indicates that Maine DEP is looking for more sampling at this time to confirm compliance with water quality standards, and that the District is planning on doing the work this summer. Did you have correspondence from DEP regarding that request, or was it verbal? Would sampling be done at the other facilities as well? Thanks. Jeff

[3/27 Email from USFWS refers to Oakland Project but meant Automatic Project]

From: "Shepard, Steven" <steven_shepard@fws.gov>
Subject: Re: LIHI review of Automatic Hydro
Date: March 27, 2017 at 12:00:38 PM GMT-4
To: Jeffrey Cueto <ompompanoo@aol.com>

The Maine Field Office of the U.S. Fish and Wildlife Service (Service) has reviewed the License, the Water Quality Certification, and certain implementing orders for the Oakland Hydroelectric Project (Project). While the Service would normally require a higher minimum flow based on our Aquatic Base Flow Policy, we appreciate the FERC's argument that a minimum flow of 15 cfs is appropriate for the short riverine reach from the Project tailwater downstream to the section of river impounded by the Union Gas Project. This office has no objection to LIHI certification of the Project.

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Steven Shepard, C.F.P.
U.S. Fish and Wildlife Service
P.O. Box A
306 Hatchery Road
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Direct: 207-902-1572
Mobile: 207-949-1288
steven_shepard@fws.gov

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History doesn't repeat itself but it often rhymes—Mark Twain

From: Jeffrey Cueto <ompompanoo@aol.com>
Subject: Re: LIHI review of Automatic Hydro
Date: March 23, 2017 at 8:38:55 AM GMT-4
To: "Shepard, Steven" <steven_shepard@fws.gov>

Steve — FERC's order on rehearing is contained in the following pdf about half way through. This one pertains to Essex's plants, but I assume the District's plant license was similarly amended. eLibrary is down today, so I couldn't look for a copy.
http://lowimpacthydro.org/wp-content/uploads/2010/10/2015Recert_Appendix-1-2.pdf

Jeff

On Mar 22, 2017, at 6:02 PM, Shepard, Steven <steven_shepard@fws.gov> wrote:
Thanks...the 401 is helpful
I have been to all these sites, seen most of the stream reaches, and agree on the habitat characteristics. I want to look into the waste discharge issues and hydrology.

Will get back to you--Steve

~ ~ ~ ~ ~

[Steven Shepard, C.F.P.](mailto:steven_shepard@fws.gov)
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History doesn't repeat itself but it often rhymes—Mark Twain

From: Jeffrey Cueto <ompompanoo@aol.com>
Subject: Re: LIHI review of Automatic Hydro
Date: March 22, 2017 at 5:33:59 PM GMT-4
To: "Shepard, Steven" <steven_shepard@fws.gov>

Thanks, Steve. I started reading through the old 401 certification, and it looks like a lot of thought went into the flow regime and the limits of lake storage. I'm attaching the 401 for your information. So far I don't see mention of the below-Automatic reach as being critical habitat. On the other hand Rice Rips bypass and the Union Gas tailrace reach appear to be most important.
Jeff

On Mar 22, 2017, at 5:26 PM, Shepard, Steven <steven_shepard@fws.gov> wrote:
Jeff

From my experience with the Licensee, I expect they are diligent meeting License requirements. As to the adequacy of the minimum flow, I will need to look into the background some more. I will stipulate that the four hydro projects on Messalonskee Stream receive flow from a highly regulated series of lakes. It may not be possible to provide 100 cfs as a min flow without undue impact to lake levels.

I will look into it and get back to you in a few days. Ping me next week if you have not heard back.

Best -- Steve

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

Steven Shepard, C.F.P.
U.S. Fish and Wildlife Service
P.O. Box A
306 Hatchery Road
East Orland, Maine 04431
Direct: 207-902-1572
Mobile: 207-949-1288

steven_shepard@fws.gov

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

History doesn't repeat itself but it often rhymes—Mark Twain

On Wed, Mar 22, 2017 at 4:53 PM, Jeffrey Cueto <ompompanoo@aol.com> wrote:
Hi, Steve. I'm reviewing the Kennebec Water District's application for recertification of its Automatic Project on Messalonskee Stream. I was wondering whether you have any specific knowledge of the sufficiency of the present minimum flow of 15 cfs to satisfy habitat needs between the Automatic tailrace and the Union Gas headpond. According the Central Maine Power's report, Fisheries Resources of Messalonskee Stream (1990), there is a 300-foot-long pool directly below Automatic dam then a 200-foot-long riffle transition going into the Union Gas backwater. Apparently, the 15 cfs was a 401 requirement, perhaps based on historical leakage from the Messalonskee Lake dam. As you likely are aware, the licenses for the four dams originally incorporated the USFWS-recommended flow of 100 cfs, which FERC later reduced to the 15 cfs on rehearing.

Any input you may have on this or regarding the status of eel passage would be appreciated.

Best regards,

Jeffrey Cueto, P.E.

From: "OConnor, Michael" <Michael.OConnor@maine.gov>
Subject: RE: Low Impact Hydropower Institute of the Automatic Project
Date: April 6, 2017 at 3:47:35 PM GMT-4
To: Jeffrey Cueto <ompompanoo@aol.com>
Cc: "Howatt, Kathy" <Kathy.Howatt@maine.gov>

Hi Jeff,

Yes, from what I've seen in our Project file, the District has been in compliance with its 401 certification.

Michael O'Connor
Licensing Project Manager
Bureau of Land Resources
Maine Department of Environmental Protection
207-441-1732
Michael.OConnor@maine.gov

-----Original Message-----

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]
Sent: Thursday, April 06, 2017 11:29 AM
To: OConnor, Michael
Cc: Howatt, Kathy
Subject: Re: Low Impact Hydropower Institute of the Automatic Project

Mike — As a general question and setting aside the water quality sampling, is the District in compliance with the 401 certification to MDEP's knowledge?

Thanks!
Jeff

On Mar 27, 2017, at 6:21 AM, Howatt, Kathy <Kathy.Howatt@maine.gov> wrote:

Good morning,
The Department will review the project compliance record and see what data are available for Messlalsonskee Stream that support a certification compliance letter. My colleague Mike O'Connor will be in touch with you regarding your request. Have a good day, Kathy

Kathy Davis Howatt
Hydropower Coordinator
Bureau of Land Resources, Land Division Maine Department of
Environmental Protection
Phone: 207-446-2642
kathy.howatt@maine.gov

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

-----Original Message-----

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]

Sent: Thursday, March 23, 2017 12:28 PM

To: Howatt, Kathy

Subject: Low Impact Hydropower Institute of the Automatic Project

Hi, Kathy. I have been contracted by LIHI to complete a review of the Automatic Project on Messalonskee Stream for recertification. I have read over the original water quality certification that was granted to Central Maine Power for the Messalonskee Project, which included Automatic at that time. Could you let me know whether the facility is in compliance with the certification?

Thanks!

Jeffrey Cueto, P.E.

From: Jeff LaCasse <JLaCasse@kennebecwater.org>
Subject: RE: Automatic Project LIHI Review
Date: April 5, 2017 at 3:52:24 PM GMT-4
To: 'Jeffrey Cueto' <ompompanoo@aol.com>, "OConnor, Michael" <Michael.OConnor@maine.gov>, Elise Anderson <eanderson@essexhydro.com>
Cc: "Howatt, Kathy" <Kathy.Howatt@maine.gov>, "Mower, Barry F" <Barry.F.Mower@maine.gov>, "Dr. Michael J. Sale" <mjsale@lowimpacthydro.org>, Matt Zetterman <MZetterman@kennebecwater.org>

Jeff and all,

KWD will conduct the sampling necessary after working with DEP to construct an acceptable sampling plan. Matt Zetterman (KWD Director of Water Quality) and I will file a final report at the end of the sampling period for DEP assessment and that report and the assessment will be forwarded to LIHI.

Jeff, we appreciate the recertification suggestion and feel our water quality sampling will be satisfactory.

Jeff LaCasse
General Manager, Kennebec Water District
PO Box 356, 6 Cool Street
Waterville, Maine 04903-0356
207-872-2763, 207-861-8964 fax
kennebecwater.org

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]
Sent: Wednesday, April 05, 2017 3:23 PM
To: OConnor, Michael; Jeff LaCasse; Elise Anderson
Cc: Howatt, Kathy; Mower, Barry F; Dr. Michael J. Sale
Subject: Re: Automatic Project LIHI Review

Mike — Thanks for the thorough review and response.

Jeff and Elise — As I understand it, you were willing to do the sampling. I'll suggest that LIHI recertify with a condition of satisfactory completion of the sampling and remediation, if necessary.

Jeff

On Apr 5, 2017, at 1:58 PM, OConnor, Michael <Michael.OConnor@maine.gov> wrote:

Hi Jeff, Jeff, and Elise,

Barry and I have finished reviewing the archive files and data. Barry's analysis below summarizes our findings:

I looked at the files we have and found some DO monitoring results at Gagnon County Road and M4 from 2001-2003. The data showed average minimum DO < 5 ppm (mg/L) on a few dates in 2001 and 2002, but none < 5 ppm in 2003. However, there were some issues with the 2003 data, notably DO reported by KWD were depth averages and did not show raw data from the profiles. Also, sampling was not conducted early enough in the morning (before 8

am). Consequently Dave Miller asked Dana Murch to request monitoring in 2004 at those two sites and a station below the dam, but I didn't find any data, and Jeff LaCasse seems to think Dana told KWD it was unnecessary although neither Jeff or the Department can locate any written correspondence.

Because of the issues with the 2003 data, the fact that the 2001-2002 data showed that Messalonskee Stream was not in attainment of its DO criteria, and that since 2012 the Oakland discharge has been diverted from Messalonskee Stream to the Kennebec Sanitary Treatment District wastewater treatment plant in Waterville that discharges into the Kennebec River, new data are needed before we can assess attainment of Maine's Water Quality Standards in Messalonskee Stream.

Monitoring for a minimum of one summer is needed following the Lakes, Ponds, and Impoundments Trophic State Study and Rivers and Streams Temperature and Dissolved Oxygen Study in DEP's Sampling Protocol for Hydropower Studies (attached). A study plan should be submitted to DEP for review and approval prior to monitoring. Monitoring should be conducted at Gagnon County Road, M4, and a station immediately below the dam.

Feel free to contact Barry or I if you have any questions.

Thank you,
Mike

Michael O'Connor
Licensing Project Manager
Bureau of Land Resources
Maine Department of Environmental Protection
207-441-1732
Michael.OConnor@maine.gov

From: Jeff LaCasse [mailto:JLaCasse@kennebecwater.org]
Sent: Monday, April 03, 2017 2:54 PM
To: 'Jeffrey Cueto'
Cc: OConnor, Michael; Elise Anderson; Howatt, Kathy; Mower, Barry F; Dr. Michael J. Sale
Subject: RE: Automatic Project LIHI Review

It appears we may not have filed the results with FERC, relying instead on our dealings with Maine DEP to cover the requirement. We, of course, share all operations information with FERC inspectors during their inspection visits every two years, but I don't recall any inspector ever requesting a final report either. It may be that we were awaiting the final written determination from DEP that no additional sampling was necessary – the document we are trying to locate currently – but the fact that no final report was filed with FERC after the sampling program concluded is on us.

Jeff

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]
Sent: Monday, April 03, 2017 12:43 PM
To: Jeff LaCasse
Cc: OConnor, Michael; Elise Anderson; Howatt, Kathy; Mower, Barry F; Dr. Michael J. Sale
Subject: Re: Automatic Project LIHI Review

Thanks, Jeff. Do you think that the District may have neglected to file the study results with FERC? If there was a final report, that should have contained a summary of the sampling and conclusions.
Jeff

On Apr 3, 2017, at 10:57 AM, Jeff LaCasse <JLaCasse@kennebecwater.org> wrote:

All,

I am attaching the water quality sampling results from the 2001-2003 period. We were not required by DEP to undergo additional testing periods in 2004 and beyond. I assume that was based on a determination by DEP that the three years provided sufficient results. Unfortunately, we have not yet been able to locate a written directive from DEP rep Dana Murch formally informing us of the stoppage of the sampling requirement. We will continue to search for that document, but we may have been informed verbally only. Our Water Quality Director during that period is no longer with us.

Of much relevance to the current water quality of the Messalonskee Stream is the fact that the Oakland Wastewater Treatment Facility, which had its outflow into Messalonskee Stream until at least 2009, has been taken off line. Sewer flows from Oakland now are piped to the Waterville sewer system to be treated by the Kennebec Sanitary Treatment District. This system modification was precipitated by an order from the Maine DEP. As expected, base water quality in the stream has improved as a result.

Hope this information helps the analysis.

Jeff LaCasse
General Manager, Kennebec Water District
PO Box 356, 6 Cool Street
Waterville, Maine 04903-0356
207-872-2763, 207-861-8964 fax
kennebecwater.org

From: Jeffrey Cueto [<mailto:ompompanoo@aol.com>]
Sent: Friday, March 31, 2017 4:06 PM
To: OConnor, Michael
Cc: Jeff LaCasse; Elise Anderson; Howatt, Kathy; Mower, Barry F; Dr. Michael J. Sale
Subject: Re: Automatic Project LIHI Review

Thanks, Michael. The only document I could find in FERC's eLibrary between 2000 and 2006 is the August 2000 order approving the 5-year monitoring. I imagine you have a copy, but I am attaching a copy just in case.

Jeff

<image001.png>

On Mar 31, 2017, at 3:44 PM, OConnor, Michael <Michael.OConnor@maine.gov> wrote:

Hi Jeff, Jeff, and Elise,

I just wanted to provide a quick update before the weekend. The Department is currently reviewing our archive hardcopy and digital files to see what information we have on the WQ sampling

conducted in the early 2000s related to the Automatic (M4) Project. So far, I have found correspondence from the first two years of WQ monitoring (2001 and 2002), which concluded there was non-attainment of dissolved oxygen criteria on several sampling events. A DEP letter dated March 9, 2004 states that the 2003 data showed that DO criteria was marginally met at the two sampling sites sampled that year; however, it also notes some issues with the sampling and requested additional DO/temperature sampling in Messalonskee Stream in 2004. I did not see any letters or data from the requested 2004 WQ study. Barry Mower is going to review the available data submitted to the Department next week so we can follow-up again when that is complete. If KWD could send us any WQ data you have in your possession for the Automatic Project that would be helpful.

Thanks,
Mike

Michael O'Connor
Licensing Project Manager
Bureau of Land Resources
Maine Department of Environmental Protection
207-441-1732
Michael.OConnor@maine.gov

<Automatic WQ data 01-03.pdf>

<MDEP Hydro Sampling Protocol - November 2014.pdf>

From: Elise Anderson <eanderson@essexhydro.com>
Subject: RE: Automatic - Messalonskee Stream Water Quality Standard
Date: March 28, 2017 at 12:10:53 PM GMT-4
To: Jeffrey Cueto <ompompanoo@aol.com>
Cc: "Dr. Michael J. Sale" <mjsale@lowimpacthydro.org>

Hi Jeff,

Thanks. We are still looking through our files for records of this and I've asked Kennebec water district as well. However, I did get some more details on the Oakland wastewater treatment plant that may be helpful:

Messalonskee Stream formerly was the outflow for the sewer treatment facility for the Town of Oakland. There were issues with biological growth in the stream that resulting from that discharge (as you can imagine). In 2009, the Town got a stimulus grant to abandon the treatment facility and to connect directly via piping to the City of Waterville's sewer system. The project was completed and, as a result, the overall water quality of Messalonskee Stream improved greatly.

Will get back to you with any results we find.

Elise Anderson

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]
Sent: Thursday, March 23, 2017 5:03 PM
To: Elise Anderson
Cc: Dr. Michael J. Sale
Subject: Re: Automatic - Messalonskee Stream Water Quality Standard

Elise — FERC had required 5 years of post-licensing water quality sampling, and Maine DEP addressed sampling as well in the water quality certification and retained jurisdiction to alter operations or require upgrades to the Oakland wastewater treatment plant. The information on the sampling results wasn't in your application. So if that work was done and the water quality was fine, the question for Maine DEP is whether it continues to be reasonably assured that standards are being met. One would expect that, unless the municipal wasteload has increased (e.g., more pounds of BOD or more nutrients), the quality hasn't worsened.

So I guess the question is whether the work was done and, if so, can it be used to judge current water quality conditions. It doesn't make much sense for the District to spend money and time on sampling if the old data is still useful.

I hope this clarifies things.
Jeff

On Mar 23, 2017, at 4:23 PM, Elise Anderson <eanderson@essexhydro.com> wrote:

Hi Jeff,

Here is the email I have regarding the request from ME DEP for water quality sampling at the Automatic Project. I know that the district (Jeff LaCasse) followed up directly with Kathy to discuss the protocol for sampling. I do not have access to that communication. If you need to see that, we can ask him. My understanding is that the district will take care of the testing this summer using their own equipment, staff. Etc.

Elise

From: Elise Anderson [mailto:eanderson@essexhydro.com]
Sent: Wednesday, January 18, 2017 10:42 AM
To: eanderson@essexhydro.com
Subject: Automatic - Messalonskee Stream Water Quality Standard

See corrected Subject – Email relates to Water Quality of Messalonskee Stream

Elise Anderson

From: Howatt, Kathy [mailto:Kathy.Howatt@maine.gov]
Sent: Wednesday, December 28, 2016 2:16 PM
To: 'Elise Anderson'
Subject: RE: Final Benton Falls Water Quality Report

[Elise,](#)

[I checked in with Barry to see whether we have any information on this reach of Messalonskee Stream, and find that we do not. The entire stream is listed as a Category 2 , Rivers and Streams Attaining Some Designated Uses – Insufficient Information for Other Uses in the Department’s draft 2014 Integrated Water quality Monitoring and Assessment Report \(305b Report\), so the applicant would need to conduct new studies and collect data consistent with the Department’s sampling protocol for hydropower studies if we needed to assess the project for meeting water quality standards. If they’re interested in doing so we can provide more specific information, as each site is different.](#)

[Kathy](#)

Kathy Davis Howatt
Hydropower Coordinator
Bureau of Land Resources, Land Division
Maine Department of Environmental Protection
Phone: 207-446-2642
kathy.howatt@maine.gov

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Elise Anderson [mailto:eanderson@essexhydro.com]
Sent: Tuesday, December 27, 2016 3:22 PM
To: Howatt, Kathy
Subject: RE: Final Benton Falls Water Quality Report

Thanks Kathy, that is helpful.

I am working with a LIHI reviewer on the Automatic application. Not sure if you are aware, but LIHI has changed their guidebook and review procedure for some items. The revised LIHI criterion requires a “Recent” WQC and noted that the Automatic certificate is nearly 20 years old. They requested a letter from the state confirming that this project is still meeting applicable water quality

standards. Would this be something you might be able to provide? Let me know if you need more information or data.

Elise Anderson

From: Howatt, Kathy [mailto:Kathy.Howatt@maine.gov]
Sent: Tuesday, December 27, 2016 8:28 AM
To: 'Elise Anderson'
Subject: RE: Final Benton Falls Water Quality Report

Elise,

Automatic expires in 2036, a new WQC will be issued then. WQCs are issued in conjunction with a federal licensing action, in accordance with section 401 of the CWA. I don't of any mechanism other than a license that triggers one for a hydro project.

Let me know if you have further questions.
Kathy

Kathy Davis Howatt
Hydropower Coordinator
Bureau of Land Resources, Land Division
Maine Department of Environmental Protection
Phone: 207-446-2642
kathy.howatt@maine.gov

Correspondence to and from this office is considered a public record and may be subject to a request under the Maine Freedom of Access Act. Information that you wish to keep confidential should not be included in email correspondence.

From: Elise Anderson [mailto:eanderson@essexhydro.com]
Sent: Thursday, December 22, 2016 1:26 PM
To: Howatt, Kathy
Subject: RE: Final Benton Falls Water Quality Report

Thanks Kathy.

My other question is a general one about obtaining new water quality certificates for projects in Maine. I am working with Automatic hydro on Messalonskee stream trying to obtain LIHI certification. The reviewer has noted the age of the WQ certificate as a concern. What is the process to obtain a new/updated certificate?

Thanks,

Elise Anderson
Environmental and Regulatory Analyst
Essex Hydro
55 Union Street, 4th Floor
Boston, MA 02108

Tel: (617) 367-0032
Fax: (617) 367-3796

From: "Shepard, Steven" <steven_shepard@fws.gov>
Subject: Re: LIHI review of Automatic Hydro
Date: April 5, 2017 at 4:40:51 PM GMT-4
To: Jeffrey Cueto <ompompanoo@aol.com>
Cc: Gail Wippelhauser <gail.wippelhauser@maine.gov>

Jeff

Yes, thanks...I may have responded cryptically. Licensee has been working on eel passage since License issuance. I have not been very engaged the last couple of years, but they hired staff (former State biologist) dedicated to eel passage. I believe eel passage requirements are being met. I defer to Gail if she has a different opinion.

Steve

~ ~ ~ ~ ~

Steven Shepard, C.F.P.
U.S. Fish and Wildlife Service
P.O. Box A
306 Hatchery Road
East Orland, Maine 04431
Direct: 207-902-1572
Mobile: 207-949-1288
steven_shepard@fws.gov

~ ~ ~ ~ ~

History doesn't repeat itself but it often rhymes—Mark Twain

From: "Wippelhauser, Gail" <Gail.Wippelhauser@maine.gov>
Subject: RE: Automatic eel passage
Date: April 6, 2017 at 1:50:44 PM GMT-4
To: 'Jeffrey Cueto' <ompompanoo@aol.com>
Cc: "Dr. Michael J. Sale" <mjsale@lowimpacthydro.org>, Steven Shepard
<steven_shepard@fws.gov>

1. The original intent was to provide upstream passage at the Messalonskee Projects on a 2-year schedule (starting downstream and moving upstream), and to monitor outmigrating adult (silver) eels at the upstream end to determine how many were in the system and the timing of their outmigration. In five years (2012-2016) only seven eels have been captured at the outlet of the lake, and they have been trucked downstream and released into the Kennebec. Since these few are currently being safely moved downstream, I do not see the need for a technical fishway or nighttime shutdowns
2. I recommend using the same condition as was used for Union Gas..

Gail Wippelhauser, Ph. D. Marine Resources Scientist Maine Department of Marine Resources #172
State House Station Augusta, ME 04333
Phone: 207-624-6349 Fax: 207-624-6501 email: gail.wippelhauser@maine.gov

From: Jeffrey Cueto <ompompanoo@aol.com>
Subject: Re: Automatic eel passage
Date: April 6, 2017 at 11:57:17 AM GMT-4
To: Gail Wippelhauser <Gail.Wippelhauser@maine.gov>
Cc: "Dr. Michael J. Sale" <mjsale@lowimpacthydro.org>, Steven Shepard
<steven_shepard@fws.gov>

Gail — Steve is deferring to you on eel passage. I think my questions for you boil down to:

1. Why is downstream passage not a present need given that it was to have been in place by now under the original recommendations?
2. Do you recommend using the same condition that LIHI recently used for Union Gas (in red below)?

Thanks.
Jeff

On Mar 27, 2017, at 12:46 PM, Jeffrey Cueto <ompompanoo@aol.com> wrote:
Gail and Steve — (Gail — I'm reviewing the Automatic Project for recertification by the Low Impact Hydropower Institute) LIHI had certified the four Messalonskee hydroelectric projects a number of years ago. The Automatic Project certification was subject to one special condition related to provision of upstream and downstream eel passage under an agreement to be reached with your offices:

Within 12 months of the date of issuance of the LIHI certification for the Automatic facility, the applicant shall present to LIHI a copy of an agreement with the Maine Department of Marine Resources and the US Fish and Wildlife Service ("Agencies") in which the applicant and agencies have reached agreement on the final design, construction, operations, and maintenance of safe, timely, and effective upstream and downstream passage for American eel at the Automatic facility, along with a similar agreement executed between the owners of (a) the Union Gas facility and (b)

the Messalonskee Lake outlet dam (owned by Messalonskee Stream Hydro, LLC, and the agencies for upstream and downstream passage for American eel at these two facilities as well. This 12 month deadline at the Automatic facility may be extended for an additional 6 months if the applicant can demonstrate to the agencies that field work necessary to determine the appropriate location and design of fish passage at the Automatic facility necessitates this extension. This agreement shall include a date to initiate construction of the required upstream and downstream passage at the Automatic facility that is the same date as installation required at the downstream Union Gas facility and the Messalonskee Lake outlet dam, unless the applicant can demonstrate to LIHI that such a deadline is infeasible, in which the deadline for construction at the Automatic facility shall be no later than 12 months after the date on which the agreement is reached.

The timetable for implementation of passage apparently was not met, and there is no formal agreement or schedule as I understand it. However, progress has been made and there is an eel ladder used at the Automatic Project, but no downstream passage as of yet. The Union Gas Project was recertified last year with an updated eel condition:

On the Owner's Annual Compliance Statements, the Owner will update LIHI the status of downstream eel passage at the site. The Owner will notify LIHI within 45 days of when DMR determines there is a sufficient number of eel to present in the river to conduct the studies needed to determine the best location to install downstream passage. A summary of those study results, along with a DMR approved plan and schedule for downstream eel passage installation, shall be included in that year's Annual Compliance Statement.

Could you give me a bit of background on the status of American eel in this watershed and the basis for deferring downstream passage? Also, does it make sense to use essentially the same updated eel condition at the Automatic Project.

I also understand that the original concept was for the four federal licenses to be amended to formally include operation of eel passage. That didn't happen. If passage is not a regulatory requirement, I will likely suggest to LIHI that operation of passage facilities at least be a condition of the recertification.

Thanks.
Jeff Cueto

On Mar 24, 2017, at 3:30 PM, Elise Anderson <eanderson@essexhydro.com> wrote:

We do at all of them, except Oakland is under construction, I believe.

Elise

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]
Sent: Friday, March 24, 2017 3:06 PM
To: Elise Anderson
Cc: Dr. Michael J. Sale; jlacasse@kennebecwater.org
Subject: Re: Automatic eel passage

Thanks, Elise. I know that Automatic uses an eel ladder. Do all four of the other dams have ladders as well?
Jeff

Begin forwarded message:

From: Elise Anderson <eanderson@essexhydro.com>

Subject: RE: Automatic eel passage

Date: March 24, 2017 at 2:31:03 PM GMT-4

To: Jeffrey Cueto <ompompanoo@aol.com>

Cc: "Dr. Michael J. Sale" <mjsale@lowimpacthydro.org>, jlacasse@kennebecwater.org

Hi Jeff,

Here is what I have regarding eel passage at the Automatic and other projects along the stream:

There is no formal plan for downstream eel passages at Oakland (M2), Rice Rips (M3), Automatic (M4) or Union Gas (M5). The only trap and truck facility for downstream eel passage is at the fish screen out of Messalonskee Lake.

Our employee, George Zink has worked with Maine Inland Fisheries for permitting/approval to act as the trap and truck facilitator.

The Kennebec Water District has no formal agreement with the State of Maine or Federal Agencies for eel passages, other than, the State of Maine approval of the upstream passage. The upstream eel passages have been observed and inspected by MDMR and US F&W. The upstream passages are monitored for numbers of eels passed, and an efficiency test performed before a request for the systems to be considered permanent, is made to MDMR and USFWS.

The low numbers of silver eels passing downstream from the Belgrade Lakes thru Snow Pond prompted a trap facility be installed at the fish rack in order to monitor the numbers of eels migrating downstream. The agencies have allowed us to truck them from there to the Waterville boat ramp in order to bypass the hydro sites. A permit from Maine Inland Fish And Wildlife to do this is required and an annual report of these activities must be sent in with the permit request. Michael Brown has been the contact there and has usually accepted an invitation to review the facilities yearly. Gail Wippelhauser has also visited the sites each season. Steve Shephard has inspected the sites one time. At this time, the trap and truck system has met our requirements.

Elise Anderson

-----Original Message-----

From: Jeffrey Cueto [mailto:ompompanoo@aol.com]

Sent: Thursday, March 23, 2017 11:06 AM

To: Elise Anderson

Cc: Dr. Michael J. Sale; jlacasse@kennebecwater.org

Subject: Automatic eel passage

Elise — I looked at the eel passage information.

Was a formal agreement ever reached between the District and the resource agencies per the LIHI certification condition?

You note in the application that downstream passage is via a trap-and-truck operation from Messalonskee Lake. Maine DMR's email from February 23, 2016 says the lake is "totally or nearly devoid of eels at this time." So what does that mean in the context of Automatic downstream eel

passage? Does the eel population only migrate upstream to the lake or is there habitat that they use in the river mainstream and/or tributaries?

Thanks.
Jeff