

660 G St, #C Jacksonville, OR 97530 www.camasllc.com 541.261.4886

August 28, 2018

Ms. Maryalice Fischer Low Impact Hydropower Institute

RE: Recertification Recommendation for the Passumpsic Hydroelectric Facility

Ms. Fischer:

This letter contains my recommendation for Recertification of the Passumpsic Hydroelectric Facility (the Project) for a five-year term with conditions to be fulfilled within the first year of recertification.

Please contact me if you have any questions.

Sincerely,

Diane M. Ban

Diane M. Barr, Principal Camas, LLC



PASSUMPSIC HYDROELECTRIC PROJECT LIHI CERTIFICATION STAGE II REPORT

Introduction and Overview

This report reviews the application submitted by Green Mountain Power (Applicant) to the Low Impact Hydropower Institute (LIHI) for LIHI recertification for the Passumpsic Hydroelectric Project (Facility) located on the Passumpsic River in northeastern Vermont. The Federal Energy Regulatory Commission (FERC) relicensed the Project (FERC 2400) in 1994, issuing a 40-year license for the operation and maintenance of the 0.700 MW Project. This application review for recertification was conducted using the new, 2nd Edition Handbook that was published in March 2016.

Background:

The Passumpsic Project is located in northeastern Vermont near St Johnsbury, at river mile 5.5, on the Passumpsic River. The Passumpsic River is a major tributary to the Connecticut River. The Project's hydroelectric facilities are owned and operated by the Green Mountain Power Corporation (GMP), formerly Central Vermont Public Service Corporation. The Passumpsic Project is the sixth most downstream of seven dams located on the River (see Figure 1 below). The Project impounds an 18.3-acre reservoir which extends 4,600-feet upstream with a useable storage. The Project's two-part concrete gravity dam consists of a 122-foot-long south section and a north section 126 feet long. Their respective maximum height is 10-feet with a crest elevation of 519.98-feet msl topped with 1-foot-high flashboards. The dam is equipped with a two gate 27-foot wide headgate structure. The power canal is 19 to 22 feet wide and 87 feet long with a sluice and a 24-foot-long overflow spillway. The Project generation is powerhouse name plate capacity 0.700 MW delivered by a vertical shaft turbine.

Recertification Standards

LIHI notified the Applicant of upcoming expiration of the Low Impact Hydropower Institute certification for the Passumpsic Hydroelectric Facility on February 6, 2017. The letter included an explanation of procedures to apply for an additional term of certification under the 2nd Edition LIHI Handbook, including the new two-phase process starting with a limited review of a completed LIHI application, focused on three questions:

- (1) Has there been a material change at the certified facility since the previous certificate term?
- (2) Has there been a change in LIHI criteria since the certificate was issued?
- (3) Is there any missing information from the application?

If the answer to any question is "Yes," the Application must proceed through a second phase, which consists of a more thorough review of the application using the LIHI criteria in effect at the time of the recertification application. The letter noted that "because the new Handbook involves new criteria and a new process, the answer to question two for all projects scheduled to renew in 2016 and beyond will be an automatic 'YES.' Therefore, all certificates applying for renewal post 2016 will be required to proceed through both phase one and phase two of the recertification application reviews." Multiple extensions of the certification term were issued, extending the current certificate to September 30, 2018 to allow time for the Applicant to supply missing information. The Stage I Review was completed in November 2017, noting minor deficiencies and areas to resolve in an updated Stage II application. The 60-day public comment period was initiated on June 12, 2018 and closed on August 11 with no comments on the application being received by LIHI. A revised application was submitted to LIHI on June 6, 2018 and this report comprises the final Stage II review.

	Vermont	Vall Dam FERC No. 8090 Great Falls Dam FERC No. 2839 rce Mills Project FERC No. 2396	
	Ama	old Falls Project FERG No. 2399 Project FERG No. 2397	
	Passump EastBarret	Dam FERG No. 8051 Exemption	
	EGEND: Green Mountain	0 0.75 1.5 3 4.5 0 Power	Miles
	Passum	psic Hydro	N
\bigcirc	FIGURE 1: SITE LOCATION MAP		W
CAMAS	Source ESRI	June 2018	S

Figure 2: Project Features



Adequacy of the Recertification Package

On June 6, 2018, the Applicant provided supplemental information based on the deficiencies identified during the Stage I Review. This recertification review included the application package, supporting comments and documentation from LIHI obtained during compliance reviews and public records on FERC e-library since the most recent LIHI recertification dated February 2, 2012. Personal communication (email/phone) outreach was made to the following agencies:

Agency	Contact	
Vermont Department of Environmental Conservation	Jeff Crocker, Streamflow Protection Coordinator	
Vermont Department of Environmental Conservation	Eric Davis, River Ecologist	
Vermont Division of Historic Preservation	Scott Dillon, Survey Archaeologist	
US Fish and Wildlife Service	Melissa Grader, Wildlife Biologist	
US Fish and Wildlife Service	Brett Towler, Hydraulic Engineer	
Vermont Diversion of Fish and Wildlife	Jud Kratzer, Fish and Wildlife Specialist	
Vermont Diversion of Fish and Wildlife	Scott Darling, Wildlife Management Program Mgr	
Vermont Diversion of Fish and Wildlife	John Buck, Migratory Birds Biologist	

A response was provided by Vermont DEC on July12, 2018. Eric Davis, VDEC River Ecologist, stated "the project consistently operates in compliance with the conditions of its water quality certification. As such, the Agency supports the LIHI certification of the project. This testimonial is provided in Attachment A of this report. The application was publicly noticed and received no public comments during the comment period. The

materials provided and referenced above are sufficient to make a recertification recommendation. This recommendation is based on the Applicant demonstrating the following statements are accurate:

1) Have there have been material changes in the project design or operation, in the affected environment, or in compliance with the current LIHI Certification or with LIHI conditions since the last certification?

In accordance with the Recertification Standards, "material changes" mean non-compliance and/or new or renewed issues of concern that are relevant to LIHI's criteria. Based on my review of materials provided, review of FERC's public records, and consultation with the noted individuals, I found that there are no areas of noncompliance or new or renewed issues of concern. The previous LIHI certificate has no conditions for implementation.

2) Are the LIHI certification criteria satisfied in all zones?

The Applicant properly selected 3 zones: Impoundment, Bypassed Reach, and Downstream

Project Zones of Effect

Impoundment Zone of Effect

In the Impoundment Zone of Effect (ZOE), Standard 1 "Not Applicable/De Minimis Effect" was appropriately applied for Criteria A (Ecological flows), C (Upstream passage), and E (Shoreline protection). The Applicant provided sufficient evidence to support the Standard 1 as there is no active storage at the Project which functions as a run of river project, the ZOE has no bypassed reach, there are no current federal prescriptions for the upstream passage of fish and migratory fish are blocked by downstream Connecticut River dams, and the Applicant conferred with Vermont DEC verifying that the Project functions as run of river and the Project remains in compliance with the Water Quality Certificate (See Appendix C of the Application). The area surrounding the Impoundment ZOE consists of rural residential housing and farmland. The land cover units possess non-significant ecological value based on the application materials and verified via GoogleEarth imagery. In addition, FERC did not require a shoreline management plan in the Project license. Such requirements are reserved for impoundments that either have social or ecological impacts on the shoreline. The Project's run-of-river operations create a stable impoundment environment further indicating a minimal to no effect on the shoreline. The applicant conducts an annual shoreline survey in accordance with the Project's Cultural Resource Management Plan. The 2016 Shoreline Survey Report states that the Project shoreline remains stable and relatively unchanged from previous surveys.

In the Impoundment Zone of Effect (ZOE), Standard 2, "Agency Recommendation", was appropriately applied for B-Water Quality, D-Downstream Fish Passage, F-Threatened and Endangered Species, G-Cultural and Historic Resources, and H-Recreational Resources. The Applicant has satisfied each of these Criterion as shown below.

Criterion B: Water Quality

The Project demonstrated compliance with the Vermont DEC issued 401 Certificate (1994) by demonstrating that it operates in a run-of-river mode through the automation of inflow to outflow with a head pond controller system. Even though the WQC is not considered "current" under the LIHI Handbook, the Stage II reviewer considers the Impoundment ZOE operation to be consistent with the current Vermont DEC regulatory requirements. To verify this, the Applicant submitted Project operations data to Vermont DEC on June 6, 2018. The Vermont DEC's review of the operations data supported the concurrence with the 1994 issued WQC evidenced on July 12, 2018, with an email correspondence, see Attachment A. In addition, the Applicant provided a testimonial from Vermont DEC that the Project meets current 303d standards by being non-contributory. See Appendix C of the Application.

Criterion D-Downstream Fish Passage

Presently there are no migratory species located within the vicinity of the Project. Resident, nonmigratory, managed species found within the Project vicinity include brown trout, brook trout, and rainbow trout. Atlantic salmon were historically stocked within the Passumpsic River under the USFWS Connecticut River Atlantic Salmon Restoration Program. The approximate 40-year stocking program ended in 2012 as poor salmon return rates persisted (see Application reference, Al Jazeera America 2016).

Under FERC License Article 405 and Water Quality Certification Condition F, permanent downstream fish passage was provided via a sluiceway, adjacent to the canal headworks. The sluiceway functions as the minimum flow release point, providing the required 86 cfs into the bypass reach.

In July 2012 the USFWS ended its program for Atlantic salmon restoration of the Passumpsic River Basin, including the Passumpsic River. Up until this program end, downstream effectiveness testing was being conducted by the Applicant in accordance with License Article 406. The termination of Atlantic salmon stocking diminished the importance of downstream fish passage effectiveness testing. Also in 2012, the Applicant applied for LIHI Certification which prescribed the following condition within the Project's 2012 Certification:

Condition (A): LIHI requires demonstration of effective fish passage to be certified as low impact. Downstream passage for Atlantic salmon was the focus for passage at this site; however, recent decision by the USFWS has eliminated restoration efforts for this species in this river system. Past documentation suggests that the agencies determined that the configuration of the passage facility sluiceway may be problematic. Recent communications with USFWS could not confirm the status of this issue at this site, and VDF&W stated that this concern and others may still exist at this site. Also, report issuance on the effectiveness testing at this site nor submission of final reporting on effectiveness testing to FERC could not be confirmed. Therefore, LIHI requires that consultation be reopened with USFWS and VDF&W to re-assess, if needed, the effectiveness of the passage facilities at Passumpsic. If no additional studies are needed, CVPS shall provide LIHI documentation demonstrating agreement by USFWS and VDF&W with this decision within one month of its issuance. If any additional studies are required, documentation of the agency approved study plan, study schedule and study results shall be provided to LIHI within one month of the finalization of these documents. These documents will demonstrate compliance with this criterion.

In accordance with LIHI's 2012 Certification Condition, GMP re-opened Passumpsic Project downstream fish passage consultation with resource agencies in 2012. Throughout consultation with the USFWS and VTFW, it was determined that additional studies were not required, but that the downstream passage facility did not meet present day fish passage standards and was in need of replacement. Although the fish passage replacement was recommended by agencies, it was not required. Understanding the need to upgrade the passage facility for the success of downstream migrants, GMP voluntarily and proactively consulted with resource agencies in the development and design for a replacement fish passage facility. As a result of consultations, GMP is now in the process of replacing the existing downstream passage facility with a new downstream bypass structure that will be located at the downstream end of the power canal adjacent to the existing powerhouse intake.

The new downstream fish passage facility will include a new surface bypass flume and a steel transport pipe. It will be mounted to the concrete forebay wall downstream of the existing surface sluice, which is located just upstream of the powerhouse trashracks. The facility will have an attraction flow of 9 cfs-25 cfs to provide safe passage of downstream migrants. The fish passage project has received necessary FERC approvals (July 10, 2017) with construction completion estimated for December 2018.

As prescribed in License Article 405 and 1994 WQC Condition F, the facility will be operated from April 1 through June 15 and from September 15 through November 15. Stoplogs will be removed from the flume entrance at the start of each operational period. Flow through the fishway will be controlled by the existing surface sluice opening in the concrete forebay wall. The headpond controller system will ensure that the required operating flow is always met or exceeded by automatically adjusting the turbine output to maintain the headpond elevation to within 1 inch of the top of the flashboards, or by spilling over the top of the flashboards.

GMP additionally filed a Revised Downstream Fish Passage Operations & Maintenance Plan with FERC on April 25, 2018 so as to properly incorporate details for the new downstream fishway design. The Revised Plan was prepared in consultation with the USFWS and VTFW. FERC approval with resulting terms and conditions were not available at the time of the application review. Therefore, the Reviewer recommends the following:

Recommendation A: The Owner will provide LIHI with evidence that FERC has approved the Downstream Fish Passage and Operations and Maintenance Plan (filed by GMP on April 25th, 2018) within 60 days from the date of issuance. If there are new terms and conditions, the LIHI Certification is subject to amendment to incorporate such terms and conditions.

No further protections are required by resource agencies for resident fish passage at the Project. The Applicant provided sufficient evidence to support these findings.

Criterion F-Threatened and Endangered Species

The Applicant provided an official USFWS List populated on November 2, 2016. Within the Project area the federally threatened Northern long-eared bat (Myotis septentrionalis) may occur. In addition, the bald eagle (Haliaeetus leucocephalus) which was delisted and removed from the federal list of endangered and threatened species in 2007, but still protected under the federal Migratory Bird Treaty Act and Bald and Golden Eagle Act, is considered a potential transient species only. Within the state of Vermont, the Northern long-eared bat and bald eagle are listed as state endangered species. Based on Project operations, it is unlikely that the Northern long-eared bat and bald eagle would be affected by the Project. The FERC approval (federal action) process for the fish passage project required the Applicant to determine if the project could affect listed species. On January 4, 2017 emails from VANR staff confirm that continued Project operations/planned construction for the downstream fish passage facility will not negatively impact the bald eagle or the northern long eared bat (Application, Appendix E).

Criterion G-Cultural and Historic Resources

Protection of cultural and historic resources is managed through a FERC approved Cultural Resources Management Plan (February 28, 2000). The Applicant provided sufficient evidence that all necessary resources have and will continue to be protected. The FERC 2013 Environmental Inspection (5-year interval) concluded that inspection frequency can be reduced due to the lack of impact to the resources, and the Project is in compliance with its License conditions.

Criterion H-Recreational Resources

In accordance with License Article 412 and WQC Conditions I and J, the Applicant developed and maintains recreation facilities including signage (danger signs), boat barrier, canoe/kayak take-out, and canoe/kayak portage trail in the Impoundment ZOE. A Recreation Management Plan (RMP) was approved by FERC in 1995, and all prescribed improvements have been implemented. The most recent FERC Environmental Inspection (2013) confirmed compliance with the RMP.

Under Article 413 of the upstream Pierce Mills Hydroelectric Project License (FERC No. 2396), the Licensee is required to evaluate the recreational uses of **all GMP hydropower projects** located on the

Passumpsic River within six months of the 10th and 20th year anniversaries of license issuance. On September 7, 2010, the Licensee filed the 10-year study of recreational uses at GMP's licensed hydropower projects located on the Passumpsic River. FERC approved of this Recreational Use Study on November 23, 2010. No improvements for recreation areas within the ZOE were included within FERC's November 23 approval. GMP's 20-year study of recreational uses was submitted to FERC on August 27, 2015 and approved by FERC Order issued on November 30, 2015.

Within the November 30, 2015 order, it was identified that GMP Per Condition B install a conspicuous sign visible from Bridge Street to clearly indicate that public access is available at the Project from sunrise to sunset. GMP has additionally improved directional signage along the portage path for portage and angler routing. Improvements to the downstream portage path are proposed to occur concurrently with downstream fish passage improvements during the 2018 construction season. GMP expects construction to be complete before December 31, 2018. GMP filed a letter with FERC on November 30, 2016 which included photographic evidence of new signage installed at the facility. Per a FERC letter dated March 30, 2017, Passumpsic Project signage enhancements were approved and GMP's proposal to file a finalized recreation map after the new portage path is completed was approved On April 25, 2018 GMP filed a letter with FERC with updates on the Passumpsic Fishway installation schedule, revised fishway and flow plans, and designs for the portage pathway improvements.

It is the opinion of the Reviewer that the following recommendation should be met by the Applicant.

Recommendation B: Provide LIHI with a copy of the final report to FERC demonstrating the completion of the portage pathway improvements within 60 days of filing that report with FERC.

Criterion H-Recreational Resources-PLUS

The Applicant has voluntarily committed to updating the Passumpsic River Canoeing and Recreation Guide in consultation with the VANR and other area stakeholders. The Applicant's evidence of this voluntary commitment supports the Pierce Mills FERC License Article 412, not the Passumpsic Project per the information in the application.

The **LIHI PLUS Standard** states that to meet an Applicant must demonstrate "new public recreational opportunities that **have been created on facility lands or waters beyond those required by agencies** (e.g., campgrounds, whitewater parks, boating access facilities and trails)". Based on the evidence provided in the application, the Applicant has not demonstrated that adherence to the Pierce Mills FERC License and extra efforts related to the Canoeing and Recreation Guide has also supported the Passumpsic impoundment ZOE, thus my review determines that the PLUS standard is inappropriate for this Project.

Bypass Reach Zone of Effect

In the Bypass Zone of Effect (ZOE), Standard 1 "Not Applicable/De Minimis Effect" was appropriately applied for Criteria C (Upstream passage), and E (shoreline protection). The Applicant provided sufficient evidence to support the Standard 1 as there are no current federal prescriptions for the upstream passage of fish and migratory fish are blocked by downstream Connecticut River dams. The Applicant conferred with Vermont DEC verifying that the Project functions as run of river and remains in compliance with the Water Quality Certificate (See Appendix C of the Application). The area surrounding the bypass ZOEs consists of rural residential housing and farmland. The land cover units possess non-significant ecological value based on the application materials and verified via GoogleEarth imagery. In addition, FERC did not require a shoreline management plan in the Project license. Such requirements are reserved for projects that either have social or ecological impacts on the shoreline. The Project's run-of-river operations create a natural flow environment in the bypass reach demonstrating a minimal to no Project effect on the bypass shoreline.

In the Bypass Zone of Effect (ZOE), Standard 2, "Agency Recommendation", was appropriately applied for A-Ecological Flows, B-Water Quality, D-Downstream Fish Passage, F-Threatened and Endangered Species, G-Cultural and Historic Resources, and H-Recreational Resources. The Applicant has satisfied each of these Criterion as shown below.

Criterion A-Ecological Flows

In 1994 WQC Condition B, the Vermont DEC required that the Passumpsic Project be operated in a run-ofriver mode. Article 402 of the December 8, 1994 FERC license incorporated Vermont DEC's Water Quality Certification requirements to operate the Passumpsic as a run-of-river facility. In accordance with WQC Condition C (License Article 403), the Applicant provides, when flows are available, a minimum instantaneous flow of 86 cfs, or inflow, whichever is less, into the bypass reach to enhance aesthetics and aquatic habitat. If instantaneous inflow falls below the hydraulic capacity of the turbine unit plus this spillage requirement, all flows are spilled at the dam. The Applicant provides aesthetic enhancement flows (a portion of the required 86 cfs minimum flow) from June 1 through October 31. From April 1 to June 15 and September 15 to November 15, the minimum flow is divided between flows through the fishway, flows needed for aesthetic enhancements, and bypass flows. To effectively pass downstream migrating fish, flows through the fishway will be 9 to 25 cfs in order to attract migrating fish to the entrance of the fishway and to ensure safe passage through the fishway.

Project operations data was provided to Vermont DEC on June 6, 2018 for verification of Project run-ofriver and Water Quality Certificate (WQC) compliance (see Application Appendix C for email exchange). Vermont DEC provided their acknowledgement of the Project WQC meeting the current water quality standards, see Attachment A.

To properly incorporate details for the new downstream fish passage system into the Flow Management Plan, a Revised Flow Management Plan was provided to USFWS and Vermont Fish and Wildlife on March 29, 2017 and the USGS on April 4, 2017 for review. GMP received agency commentary from VANR on March 30, 2017 and commentary from USFWS on November 16, 2017. No commentary was received from USGS.

Agency comments were incorporated where feasible and the Revised Flow Management Plan was filed with FERC on April 25, 2018 for review and approval.

It is therefore recommended that the following conditions apply either prior to recertification, or as part of the LIHI Certification Conditions.

Recommendation C: The Owner shall provide LIHI with evidence that FERC has approved the Revised Flow Management Plan (filed by GMP on April 25th, 2018) within 60 days from the date of issuance.

Criterion B: Water Quality

The Project demonstrated compliance with the Vermont DEC issued 401 Certificate (1994) as well as by providing a current testimonial (January 27, 2017) from Vermont DEC that the Project meets current 303d standards by being non-contributory. See Appendix D of the Application.

Criterion D-Downstream Fish Passage-See Impoundment Section Criterion F-Threatened and Endangered Species- See Impoundment Section Criterion G-Cultural and Historic Resources- See Impoundment Section Criterion H-Recreational Resources- See Impoundment Section

Downstream Reach Zone of Effect

VANR stocks the Passumpsic River upstream of the Project (from the Vail Dam to the Gage Dam) with brown trout and rainbow trout. Fish are not able to migrate above the Project as there are presently no upstream fish ladders above the above Wilder Dam (FERC No. 1892) located at RM 217.4 on the Connecticut River. The VANR Passumpsic and Upper Connecticut River Tactical Basin Plan (June 2014) does not note presence of American eel within the Passumpsic River. Therefore, based on the evidence provided, anadromous fish passage is unlikely to be an issue on the Passumpsic River for the term of the LIHI certification.

In the Downstream Zone of Effect (ZOE), Standard 1 "Not Applicable/De Minimis Effect" was appropriately applied for Criterion A-Ecological Flows, C-Upstream Passage, D-Downstream Fish Passage, and E-Shoreline Protection. The Applicant provided sufficient evidence to support the Standard 1, for <u>Criterion A-Ecological Flows</u> by demonstrating that the Project operates as a true run-of-river project. This demonstration included evidence from the Vermont WQC (June 16, 1994, Appendix A of the Application). WQC Condition B (Article 402 of the 1994 License), recognized that the Project operates in a true run-of-river mode where instantaneous flows below the tailrace equal instantaneous inflows to the impoundment at all times. In addition, the Applicant developed a Flow Management Plan (FERC License Article 404 and WQC Condition E) approved on April 10, 1997. This plan ensures that the minimum flow is always met or exceeded.

For C-Upstream Passage, the Applicant provided sufficient evidence that the project does not serve as a barrier due to barriers that already exist downstream of the project dam. The Applicant also provided evidence that these barriers are not scheduled to be removed during the term of the LIHI Certification. For Criterion D-Downstream Fish Passage, the Application provided a sufficient description of the proposed downstream fish passage facility. On July 10, 2017, FERC approved the Applicant's Downstream Fish Passage Design. In 2017, the land portions of the improvements were completed. The Applicant plans to complete the in-water portions of the project in 2018. The Applicant submitted to FERC a Revised Downstream Fish Passage Operation and Maintenance Plan on April 24, 2018. As of the date of this report, FERC had not issued an acceptance letter of the Operation and Maintenance Plan. The new downstream fish passage facility will include a new surface bypass flume and a steel transport pipe. It will be mounted to the concrete forebay wall downstream of the existing surface sluice, which is located just upstream of the powerhouse trashracks. The new structure will be supported by steel brackets that are attached to the downstream side of the forebay wall. The new 24-inch diameter transport pipe will run downstream along the existing forebay wall and then discharge into the tailrace downstream of the powerhouse. The existing 2-1/8-inch clear powerhouse trashracks were replaced with new trashracks in late 2017. The lower 5 feet of the trashracks were replaced with new 2-3/8-inch clear bar racks while the remaining portion was replaced with new 1-inch clear bar racks. The existing downstream fishway will be abandoned and plugged with stoplogs. It is the Reviewer's opinion that the Applicant will install these new features as demonstrated and has thus met the standard.

For <u>Criterion E-Shoreline Protection</u> the Applicant sufficiently demonstrated that the downstream reach is not applicable to this Project and ZOE as there are no shoreline management plans and the run-of-river operations create a stable shoreline condition.

In the Downstream Zone of Effect (ZOE), Standard 2, "Agency Recommendation", was appropriately applied for B-Water Quality, F-Threatened and Endangered Species, G-Cultural and Historic Resources, and H-Recreational Resources. The Applicant has satisfied each of these Criterion as shown below.

Criterion B: Water Quality

The Project demonstrated compliance with the Vermont DEC issued 401 Certificate (1994) as well as by providing a current testimonial from Vermont DEC that the Project meets current 303d standards by being non-contributory. See Appendix D of the Application.

Criterion F-Threatened and Endangered Species- See Impoundment Section **Criterion G-Cultural and Historic Resources-** See Impoundment Section **Criterion H-Recreational Resources-** See Impoundment Section

(3) Is there any missing information from the application?

The Project meets the LIHI recertification criteria, but the following conditions will ensure that information related measures currently planned is provided to LIHI in a timely manner:

Ecological Flows

Condition 1: The Owner shall provide LIHI with evidence that FERC has approved the Revised Flow Management Plan (filed by GMP on April 25th, 2018) within 60 days from the date of issuance of that approval.

Downstream Fish Passage

Condition 2: The Owner will provide LIHI with evidence that FERC has approved the Downstream Fish Passage and Operations and Maintenance Plan (filed by GMP on April 25th, 2018) within 60 days from the date of issuance of that approval. If FERC issues new terms and conditions, the LIHI Certification is subject to amendment to incorporate such terms and conditions.

Recreation Resources

Condition 3: The Owner shall provide a LIHI with a copy of the final report to FERC demonstrating the completion of the portage pathway improvements within 60 days of filing that report with FERC.

Conclusion

It is recommended that the Passumpsic Hydroelectric be LIHI Certified without the PLUS standard, for a term of five years, with the noted conditions to the certification.

Please contact me if you have any questions.

Sincerely,

Diane M. Ban

Diane M. Barr, Principal Camas, LLC

Attachment A

State and Federal Agency Communication for LIHI Concurrence for Certification

Subject:	RE: LIHI Cer+fica+on Arnold Falls, Gage and Pierce Mills	
Date:	Thursday, July 12, 2018 at 5:48:32 AM Pacific Daylight Time	
From:	Davis, Eric	
То:	Diane Barr	
CC:	Crocker, Jeff, Maryalice Fischer	

AGachments: image007.jpg, image010.jpg, image002.jpg, image001.png, image005.png

Good morning Diane,

I did not specifically address the Passumpsic project in my prior e-mail because I did not know if the comments were +mely. I know the +meline for Passumpsic is slightly different than the others (I think the Passumpsic applica+on was received in 2018 vs. the others being received in 2017).

However, I reviewed the opera+ons data for the Passumpsic project along with the Arnolds Falls, Gage, and Pierce Mills project and my comments for those three facili+es are also applicable to the Passumpsic project.

Thanks, -E

Eric Davis, River Ecologist

1 National Life Drive, Main 2 Montpelier, VT 05620-3522 802-490-6180 / <u>eric.davis@vermont.gov</u> <u>http://www.watershedmanagement.vt.gov/rivers</u>



See what we're up to on our <u>Blog, Flow</u>.

From: Diane Barr <diane@camasllc.com>
Sent: Wednesday, July 11, 2018 12:03 PM
To: Davis, Eric <Eric.Davis@vermont.gov>
Cc: Crocker, Jeff <Jeff.Crocker@vermont.gov>; Maryalice Fischer <mfischer@lowimpacthydro.org>
Subject: Re: LIHI Cer+fica+on Arnold Falls, Gage and Pierce Mills

Eric, thanks again for the +mely review of the Arnold, Gage and Pierce Mills data.

If you don't mind me asking, what do you think your +meline will be for the Passumpsic data?

Diane M. Barr | Principal Regulatory Specialist



660 G Street, #C | Jacksonville, OR 97530 Phone: 541.261.4886 | email <u>diane@camasllc.com</u> Website: <u>www.camasllc.com</u>

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From: "Davis, Eric" <<u>Eric.Davis@vermont.gov</u>>
Date: Thursday, July 5, 2018 at 1:16 PM
To: Diane Barr <<u>diane@camasllc.com</u>>
Cc: "Crocker, Jeff" <<u>Jeff.Crocker@vermont.gov</u>>, "McHugh, Peter" <<u>Peter.McHugh@vermont.gov</u>>
Subject: RE: LIHI Certification Arnold Falls, Gage and Pierce Mills

Hello Diane,

The applicant actively engaged the Agency in developing the LIHI application for the Arnold Falls, Gage and Pierce Mills projects. This included consultation and providing operations data. The Agency reviewed this information and determined the project consistently operates in compliance with the conditions of its certification. As such, the Agency supports the LIHI certification of these projects.

Thanks, Eric

Eric Davis, River Ecologist

1 National Life Drive, Main 2 Montpelier, VT 05620-3522 802-490-6180 / <u>eric.davis@vermont.gov</u> http://www.watershedmanagement.vt.gov/rivers



See what we're up to on our <u>Blog, Flow</u>.

From: Diane Barr <diane@camasllc.com>
Sent: Friday, June 01, 2018 10:35 AM
To: Davis, Eric <<u>Eric.Davis@vermont.gov</u>>
Cc: Crocker, Jeff <u>Jeff.Crocker@vermont.gov</u>>
Subject: Re: LIHI Certification Arnold Falls, Gage and Pierce Mills

Hi Eric, thanks for the email.

We have completed our review and are just awaiting VDEC's response to the GMP data submittal. Since the current WQC is over 10 years old, LIHI requires concurrence from the 401 issuing agency that the project conforms to current water quality standards, or that the issuing agency supports the LIHI certification. Is the data review a necessary step to make such a concurrence statement from VDEC?

Diane M. Barr | Principal Regulatory Specialist

660 G Street, #C | Jacksonville, OR 97530

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