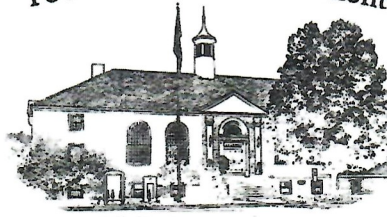


Town of Norwich, Vermont



CHARTERED 1761

April 10, 2024

Debbie-Anne Reese, Secretary
Federal Energy Regulatory Commission
888 First Street, NE Room 1A
Washington, D.C. 20426

Via E-Filing

Re:

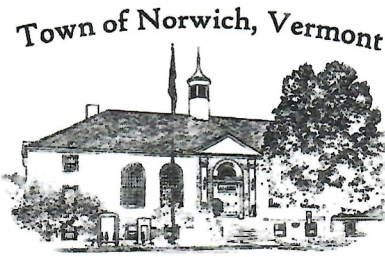
FERC No. 1904, Vernon Dam, Great River Hydro LLC
FERC No. 1855, Bellows Falls Dam, Great River Hydro LLC
FERC No. 1892, Wilder Dam, Great River Hydro LLC
Town of Norwich, Vermont comments on Great River Hydro LLC's
Applications for a Dam Relicensing

Dear Secretary Reese,

The Town of Norwich, VT is submitting comments in response to FERC's issuance of a "Ready for Environmental Assessment" and accompanying comment period for the Amended Final License Application (AFLA), submitted in December 2020 revised in June 2023, and in January 2024, for the three Great River Hydro LLC (GRH) dams listed and FERC No. referenced above.

I. Description

Seven and eight-tenths miles of the Connecticut River and its shoreline in Norwich, along with the Ompompanoosuc River estuary and other tributaries, will be affected by the proposed relicensing of GRH dams. These Connecticut River miles have been transformed into an impoundment to facilitate hydroelectric power generation. Clean energy production from all three dams will be a dominant and important use of the river for at least the next half century. However, other users of the river and its tributaries also have important rights and needs. Residences, businesses and nonprofits, agriculture, recreational facilities, and the Norwich Water District's drinking water aquifer are located riverside. A wide variety of wildlife species also use the riverside, the river itself, the estuary, and several tributary streams as their habitats. Therefore, the town of Norwich is providing public comments during this phase of dam relicensing emphasizing support for the comments from the Connecticut River Joint Commissions (CRJC) and the Connecticut River Conservancy (CRC), two important organizations who



thoughtfully provide advice to public agencies regarding decisions about riverine policies, including dam relicensing.

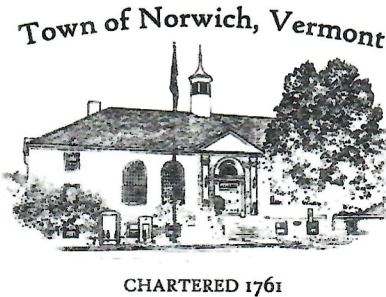
II. Comments

1. Dam Operations and Environmental Impacts

The Town of Norwich agrees with the comments of the Connecticut River Conservancy (CRC) and the Connecticut River Joint Commissions (CRJC) outlining the potential benefits of the proposed dam operations. Changing dam operations to mimic more closely the natural daily and seasonal water levels has the potential to improve the river habitat for plants and wildlife. We also agree that the exact effect of these changes on water quality, sediment transport, bank erosion and the transport and accumulation of toxins, among other variables, is not known and should be studied continuously. Further, the interaction between this new water flow regime and the predicted extremes of precipitation and drought due to climate change are not even considered in the final application.

Norwich is vulnerable to threats from a reduction in water quality, flooding, river bank erosion, habitat loss and degradation, and toxins. Downtown Norwich gets its water from an aquifer that runs under the river from the town's northern boundary. Residents outside the downtown area rely on private wells. Any intrusion of toxins into the aquifer would cause irreparable damage to the town's water supply. Overall, water quality in the river has improved, allowing the public to enjoy recreation near and on the river. Decreases in water quality would cause significant harm to the town's economy and the ability of the public to recreate on the river. Norwich has already experienced significant bank erosion as a result of last summer's heavy rains, which caused a road collapse. Such events are likely to increase as a result of climate change. Climate change models predict a 60% increase in precipitation for New England, often in the form of intense rainfall. Periods of extreme drought are also predicted. Loss of habitat for plants and animals not only degrades Norwich's environment, but also affect recreation and the businesses that rely on it.

Comment: At the very least, FERC should require, as a condition of the license, that GRH hire an independent entity to continuously monitor water quality, flooding impacts, bank erosion, sediment transport, toxin levels and the health of plants and wildlife. This data must be made public and shared with essential stakeholders including the CRJC. As a user of the river, GRH must help pay the costs communities will face should adverse



impacts occur because of the operation of the facilities. One mechanism for such contributions would be a Mitigation Enhancement Fund.

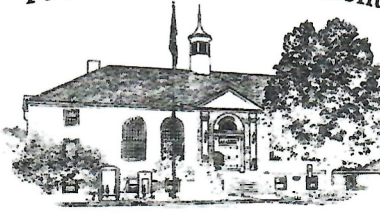
2. Mitigation and Enhancement Funds

The Town of Norwich requests the establishment of three Mitigation and Enhancement Funds to mitigate known adverse impacts, as well as for unforeseen impacts, and to improve recreational access to the river. Such funds should be a requirement of the license and must address river restoration, erosion and recreation.

A River Restoration Fund must include, but not be limited to the following: monitoring and restoring water quality and temperature, plant and animal habitat, including management of invasive species, fish passage, toxins, sediment transport and acquisition of development rights and property. In order to provide adequate money throughout the term of the license, GRH must pay a proportion of its profits into the fund yearly. Norwich seeks to protect its natural resources for their own sake, but also for recreation including wildlife viewing, fishing, boating, hiking and swimming. Its commitment to preserving its natural resources and making them accessible for recreation is reflected in the Norwich Town Plan adopted in 2020 http://norwich.vt.us/wp-content/uploads/2012/06/Norwich_Plan_2020-ADOPTED-Ir-.pdf. A breached dam on the Charles Brown Brook, a tributary of the Connecticut River, was recently not repaired by the town to improve fish habitat. A 2023 rare plant survey conducted by the Native Plant Trust in coordination with the State Botanist identified a possible infestation of Eurasian watermilfoil (*Myriophyllum spicatum*) at the confluence of the Ompompanoosuc and Connecticut Rivers. The Norwich Conservation Commission has had to finance removal of *Phragmites australis*, which would eventually choke out the boat launch there. A River Restoration fund devoted to monitoring and improving wildlife habitat, establishing riparian buffers, combating invasives, and monitoring water quality would allow Norwich to better achieve its goals and maintain the quality of its natural resources.

An Erosion Monitoring and Mitigation Fund should take into account the inevitable erosion of the banks of the river that will likely result from the operational change. Because dam operations will change, the exact effects on erosion are not known. Continual monitoring by an independent entity will be essential. If significant erosion is found, the development and implementation of a mitigation plan must include consultation with all stakeholders. Erosion not only affects properties along the river, but town infrastructure. The abutters suffer both loss of the use of the land and loss of

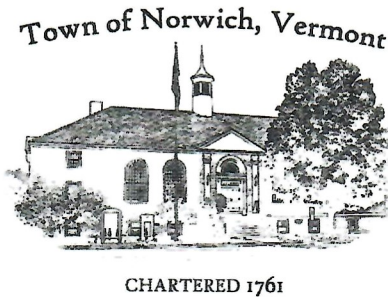
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the land itself. When the abutters of the river were required to provide easements for flowage over their property, there were few if any provisions made for compensation for acreage permanently lost to erosion. Moreover, there was no provision made with the state and municipal entities within which the abutters were situated for property taxes and other obligations of the abutters to be abated or otherwise mitigated as their acreage was lost to the artificially flooded river. The erosion also causes recreational activity on the river to be problematic. Areas such as Patchen's Point, which is a popular picnicking area and the only public camping area along the river in Norwich, have seen significant erosion. Insofar as the Town of Norwich does not own much area on the Connecticut River or on the connecting Ompompanoosuc River, erosion reduces the available recreational resources. Recent heavy rains during Summer 2023 caused significant damage to a town road at the confluence of the Connecticut and Ompompanoosuc rivers in Norwich at an estimated cost of repair approaching \$1 million. These losses should be addressed by the Erosion Monitoring and Mitigation Fund as well. As with the River Restoration Fund, in order to provide adequate money throughout the term of the license, GRH must pay a proportion of its profits into the fund yearly.

A Regional River Recreation Fund should be required by the license. Norwich seeks to encourage recreation in and along the river. Facilities along the river are in need of upgrading and expansion as noted in the Upper Valley Subcommittee Recreation Management Plan https://www.cric.org/wp-content/uploads/2012/06/RECREATION_LRS3_2013pc.pdf (pp 10-11). According to the Vermont Agency of Natural Resources "with 54% of Vermonters participating in wildlife watching activities, it is the most popular outdoor recreation." Walking, paddling, visiting lakes, rivers and ponds, day hiking and wildlife viewing were among the top 10 recreational activities of Vermonters according to the Vermont Statewide Comprehensive Outdoor Recreation Plan 2019-2023 https://fpr.vermont.gov/sites/fpr/files/Recreation/Vermont_SCORP_12_23%20-%20Split%20Pages%20-%20Edge%20to%20Edge.pdf. Norwich is a designated Appalachian Trail community, and is discussing the creation of a bikeway on Rt 5 which borders the river through much of Norwich, and eventually would connect to a bike trail stretching the length of the river. The Appalachian Trail designation as well as robust and connected biking, boating and wildlife viewing opportunities form an important marketing tool to support the economic development of the town. Planned expansion at Dartmouth College directly across the river from Norwich, in Hanover, NH, will greatly increase the use of recreational facilities in Norwich. Given this, it is important that Great River Hydro be required to develop a robust Recreational Plan for the whole region, that incorporates

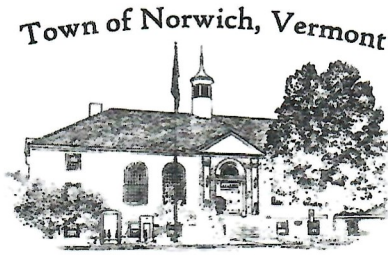


stakeholder input, the addition of new access areas and other new recreational amenities, and a fund to support ongoing enhancement and maintenance needs over the course of the license.

Comment. Three Mitigation Enhancement Funds covering river restoration, erosion and recreation are especially important given that the Final License Application does not take into account the scientific climate change models predicting not only greatly increased precipitation, but increasingly intense storms and drought in New England. While Norwich appreciates the potential benefits of the proposed operation changes for plant and wildlife by virtue of a more natural river flow, the exact effects on water quality, erosion, flooding, sediment transport, toxins and the health of plants and animals that depend on the river are not known. Recreation infrastructure and access along and in the river provides important economic and health benefits not only to residents of towns along the river, but statewide. These funds must be designed to assure independent data collection, mitigation of any and all adverse impacts within the area where flowage rights exist, and consultation with stakeholders in return for the use of the public resource by GRH. GRH must be required to contribute a percentage of profits yearly to assure an adequate amount of money extending throughout the period of the license. As an essential stakeholder representing all of the towns along the river, the CRJC is the best entity to manage and distribute the fund.

3. Environmental Monitoring, Data Collection, Data Sharing, and Reporting

Norwich agrees with the CRJC about “Documentation of Environmental Impacts”, namely that, “The proposed operational changes will likely benefit the river’s biological community as these changes will provide a hydrological regime that more closely resembles natural pre-impoundment conditions. However, we are not clear what impact these changes will have on water quality, sediment transport and riverbank erosion as no scientific evidence on these issues has been provided. Since intense storms and river flows are projected to increase due to climate change..., we anticipate erosion and bank failures will not only be an ongoing problem but will increase. Moreover, the Projects will still have adverse effects in both impoundment and riverine reaches” (e.g., see Final License Application (FLA) dated December 2020, p. 955, 1144; revised in June 2023). “Therefore, monitoring of water quality, sediment transport and erosion should be conducted throughout the life of the licenses. Funding for this work should be provided by the MEF or a condition in the license...” (from CRJC Comment on the GRH AFLA).



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Comment: We emphasize support for requiring that GRH hire an independent entity to monitor informative physical, chemical, and biological attributes of the river as part of the relicensing agreement. Continuing operations and proposed operational changes affect the nature of the impoundments and adjacent lotic systems. Monitoring of temperature, dissolved oxygen, pH, nutrients, turbidity, bacterial loads, invasive aquatic plants, abundances of native floral and faunal indicator species, sedimentation rates, erosion rates, toxin accumulations, etc. The resulting database will need to be well-maintained and made public by sharing with agencies and local riverine organizations. Periodic public reports of findings and conclusions should also be expected of GRH.

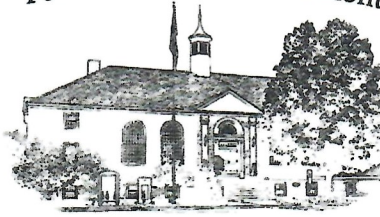
4. Recreation Infrastructural Support

The Town of Norwich concurs with the Connecticut River Joint Commissions' statements and comments in their Response to Notice for Solicitation of Comments and Preliminary Conditions, dated April 22, 2024, Section 5, regarding Support Riverside Recreation.

The Connecticut River Recreation Management Plan as published in May 2008 and updated in May 2013 extensively explored land-based-recreation in an attempt to portray and address the full range of recreation issues in the region. Both FERC and the Army Corps of Engineers adopted these plans to establish the long-term recreational goals and propose implementation strategies to adopt them. Those recommendations are not only ignored in the 2020-FLA, but they disregard the years of work and investment by other stakeholders in the mutually agreed upon management plan. The National Blueway designation and the Connecticut River Paddlers' Trail are two underfunded and unincluded opportunities. Meanwhile, the riverfront communities continue to pay their share and do their part by making significant investments according to agreed-upon wastewater management and water-quality goals. The demand for recreational uses has only continued to grow, and more opportunities to accomplish those on-river and river-side have been thoughtfully identified, proposed, and developed by local municipalities, stakeholder groups, and non-profit organizations.

Great River Hydro seemingly omits these significant interests among the communities along the river as it is "not proposing any changes to existing recreation access areas, portage trails or access into the Bellows Falls bypassed reach (portage or whitewater boating)..." (Revised Amended Final License Application, Exhibit E, January 2024, Section 3.9.2.2, p. 590). Many of these priorities are identified in the three applicable CRJC Subcommittee Recreation Plans. Additionally, it is clear that use of the Connecticut River has evolved over the past 50 years and that more change can be expected in the next 50. Recreation on the river and adjacent lands has significantly expanded. The New

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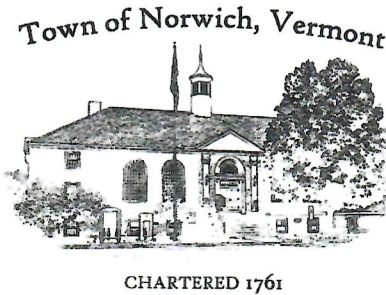
Hampshire Marine patrol is understaffed and facilities along the river are inadequate. This is a major barrier in the protection of this resource for recreational use and a necessary component to amplify those endeavors.

The CRJC and other stakeholders have identified specific “shovel-ready” recreational projects that are applicable for funding under the anticipated Mitigation fund, That could be funded by the revenue-sharing agreement that CRJC suggests. As an example of action that would benefit recreational use of the river, mitigation of erosion of the river banks is needed not only to maintain and enhance existing recreational access to the river, but for the development of additional initiatives to increase public engagement with the river (e.g., walking trails, boat launch, and river access opportunities) are necessary. A significant body of work exists documenting these needs and opportunities.

Comment: Regarding recreational infrastructural support, the Town of Norwich requests that a) the effects of the erosion of the banks of recreational areas on the river be monitored and mitigated through the Erosion Monitoring and Mitigation Fund referenced above in this letter; b) that the Regional Recreation Enhancement Fund, described above in this letter, be required to support the Marine patrol as necessary to enhance recreational opportunities and safety; c) address the issues set forth in the Connecticut River Recreation Management Plan, at least as published in May 2008 and updated in May 2013, to take the steps necessary to implement the plan to incorporate recreational use of the river; and d) encourage expanded recreational use of, and public interaction with, the Connecticut River.

5. *Migratory Fish Species Passage*

Norwich agrees with the CRC about the need for better accommodation of fish passage by “...expect[ing] significantly more protection, mitigation, and enhancement measures in the license application...The application [inadequately] states they will provide the following mitigation:...Operate fish ladders from April 1 to July 15 ...Discuss additional fish passage requirements with resource agency staff” (from CRC concerns with the GRH License Application). Norwich agrees with further CRC statements in that “We support the extended period for operations of fish ladders in the spring to accommodate in-river migration of resident species” and that “timelines for additional studies and implementation are too long to sufficiently protect our federal trust species and subsequently are not in the public interest. Fish passage performance standards should



be included for American eel and Sea lamprey” (from CRC Comment on the GRH Fish Passage Settlement).

Comment: We emphasize support for requiring that, as part of dam relicensing, GRH operate fish ladders, other passage structures, and turbines in a manner consistent with “... giving equal consideration to the protection of fish and wildlife and their habitat (FERC *Equal Consideration Clause*, 1986). This consideration will potentially greatly benefit American eel, American shad, river herring, native sea lamprey, white sucker, and walleye populations. These operational changes should include improvements at upstream passage facilities, protecting downstream migrants from turbine mortality, and expansion of the passage season for migratory resident species.

6. *Capital Reserves and Investment Fund*

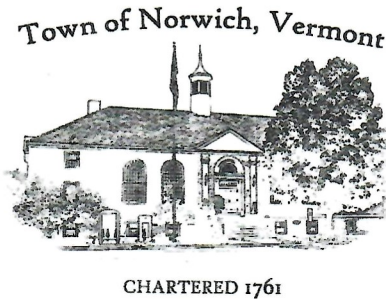
Norwich agrees with the CRJC that a long-term escrow fund be established to address the known and future repair, maintenance and, if needed, decommissioning and dismantling costs of the dams.

Comment: GRH will be deriving substantial profits from the use of a public resource and should be entirely responsible for the repair, maintenance and decommissioning of the dam, and any adverse effects resulting from these operations. The dams were built between 1907 and 1950. As a small town of approximately 3600 people, Norwich does not have the wherewithal to pay for harms to the river and its surrounding lands affected by the dam. FERC should require the establishment of a Capital Reserve and Investment Fund as a condition of the license.

7. *Project Boundary Maps*

MAPS OF WILDER DAM FLOWAGE 05-01-17 (Exhibit G) indicate that Great River Hydro owns flowage easements on properties adjacent to the river in an area affected by project operations that encompass about 175 river miles.

Comment: We believe that the project boundaries should be inclusive of all the parcels where the company owns flowage rights. If they can flood these properties as needed, they are clearly part of the project area, and the project boundary maps should reflect that fact.



8. *Climate Models*

The Final License Application does not include climate models in any of the plans or projections in violation of the National Environmental Policy Act (NEPA) and the Federal Power Act (FPA). The Final License Application anticipates no problems arising from river flow exceeding the dam's capacity, but the conclusion relies only on past data. Current climate models predict a 60% increase in precipitation in New England, with increasing storm intensity and run-off, as well as increasing periods of drought. GRH does not address how climate change will affect the proposed changes in dam operations. It does not project what river levels might be reached during intense storm events predicted by climate models. No information is provided about how release of water from all the hydroelectric as well as flood control dams will be coordinated with the United States Army Corps of Engineers so as to protect homes, businesses, infrastructure and wildlife habitat. River shore communities need to know what they can expect in terms of flooding and drought. Landowners, municipalities and other stakeholders along the river where flowage rights exist must have warning, based on the most up-to-date climate modeling, of what to expect so they can plan and prepare. Individual towns have a vital economic stake not only in businesses that cater to recreation on the river, but also in protecting infrastructure such as roads. This is of particular concern to Norwich as we face an estimated \$1 million repair cost to a road at the confluence of the Ompompanoosuc and Connecticut Rivers that was damaged during the heavy rains of the summer of 2023.

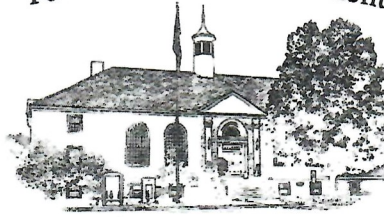
As the climate changes in response to current and future greenhouse gas emissions, climate models will be updated. GRH must periodically update its dam operation plan and its projections for the future as updated climate models become available. These plans and projections must be made available to listed stakeholders and the public in order that they may provide meaningful input and comment.

Comment: Climate change must be taken into account in the license agreement with GRH. This must include both projections based on current climate models, as well as periodic updates when climate models are updated. Projections must adhere to best practices for using the most recent IPCC modeling scenarios.

9. *Adverse Impacts within the Period of the License*

Climate models predict substantial increases in rainfall, run-off, storm and drought intensity in New England <https://site.uvm.edu/vtclimateassessment/>. Requiring only data collection over the course of 40 years before any steps are taken to mitigate

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adverse impacts is not acceptable. It places undue responsibility for mitigation on towns along the river without any required contribution from GRH, which is using this public resource for private profit.

Comment: As data is collected and any adverse impacts revealed, GRH should be required to plan and execute, in consultation with all stakeholders, an adaptive management plan to mitigate the adverse impact.

10. Connecticut River Joint Commissions Role

The Connecticut River Joint Commissions (CRJC) is a quasi-governmental body created by the states of New Hampshire and Vermont in the 1980s to address matters involving the river and its watershed. As such, for over 30 years, it has uniquely provided representation from each of the towns bordering the river in protecting and preserving this vital public resource. It was included in the Settlement Agreement of August 11, 1997 setting forth changes to the dams on the northern reaches of the river. However, it was not included in discussions leading to the changes in dam operations in the current GRH relicensing. Any discussions related to the management of the dams, or other issues affecting the river and its watershed must include the CRJC as an essential stakeholder.

Comment: The CRJC is an essential stakeholder in matters related to the Connecticut River and its watershed. It must be included in any and all discussions regarding the management and licensing of the dams on the river.

III. Conclusion

We trust that any FERC issuance of a new license will require that GRH better meet the needs of the broader river community with accommodation of environmental impacts from dam operations, mitigation funding, extensive data collection & sharing, improved fish passage, reserve & investment funding, project maps, adverse impact planning, planning using updated climate models, and an integral Connecticut River Joint Commissions role going forward.

Sincerely,

Pamela Smith, Chair *Selectboard.*

Town of Norwich, VT

Document Content(s)

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