UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

TransCanada Hydro Northeast, Inc.

Bellows Falls Project No. 1855-045

APPALACHIAN MOUNTAIN CLUB, VERMONT RIVER CONSERVANCY, AND FRIENDS OF THE CONNECTICUT RIVER PADDLERS' TRAIL'S COMMENTS AND STUDY REQUESTS IN RESPONSE TO THE NOTICE OF INTENT TO FILE LICENSE APPLICATION, FILING OF PRE-APPLICATION DOCUMENT (PAD), COMMENCEMENT OF PRE-FILING PROCESS, AND SCOPING: REQUEST FOR COMMENTS ON THE PAD AND SCOPING DOCUMENT, AND INDENTIFICATION OF ISSUES AND ASSOCIATED STUDY REQUESTS REGARDING THE BELLOWS FALLS HYDROELECTRIC PROJECT, FERC PROJECT NO. 1855-045.

Since 1876, the Appalachian Mountain Club (AMC) has promoted the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of the Appalachian region. The AMC is a steering committee member of the Hydropower Reform Coalition based in Washington, D. C. The AMC is the largest conservation and recreation organization in the Northeast with more than 90,000 members, many of whom live within three hours of the Connecticut River and would enjoy this section as a daylong or longer trip. The AMC's interests in hydropower relicensing are mainly in the areas of conservation and recreation.

The Vermont River Conservancy protects public access, wildlife habitat, clean waters, scenic natural beauty and ecological integrity by conserving undeveloped land along rivers, lakes and wetlands of Vermont. Since 1995, working in cooperation with state and federal agencies, municipalities and other conservation organizations, VRC has completed projects at over 45 popular local swimming holes, gorges and waterfalls, fishing and boating accesses, protecting paddlers' trails and meandering river corridors for all to enjoy.

The Friends of the Connecticut River Paddlers' Trail is dedicated to building and stewarding primitive campsites, access points, and portage trails along the Connecticut River. The organization manages over 30 campsites and 70 access points that reach from the Connecticut River's headwaters south to the Massachusetts border. Efforts are underway to expand the trail into Massachusetts and Connecticut. The group includes representatives from conservation organizations, state and federal agencies, hydroelectric companies, and town conservation commissions that recognize the region's rich ecology and productive working landscape and seek to facilitate recreational use compatible with the Refuge's natural, social, and historic character.

Currently five hydropower projects on the Connecticut River are up for new federal licenses, including Bellows Falls. These five facilities influence about 168 miles of the longest river in New England, including creating 91 miles of reservoir that have

fragmented the river and converted whitewater rapids into impoundments. The impacts stretch from the upper reaches of the 45-mile long Wilder Project reservoir in New Hampshire and Vermont down to about Northampton, or possibly the Holyoke Dam reservoir, in Massachusetts. The watershed surrounding these projects encompasses a significant portion of the 7.2 million acres in the Connecticut River and Watershed National Blueway. The Bellows Falls section of the Connecticut River offers paddling opportunities of sufficient quality to attract national interest. The main stem is of sufficient size for canoeing, kayaking and rowing for multiple-day trips, and flows through beautiful Appalachian countryside.

Rather than repeating some requests here, the AMC co-signed onto American Whitewater and New England FLOW's study requests for whitewater recreation and contingent valuation economic studies and hereby reference them without repeating them in detail for brevity's sake. This includes controlled-flow studies as have been done on dozens of FERC projects, specifically of the whitewater reach below Bellows Falls Dam. The original riverbed of the Connecticut River in the Bellows Falls bypass reach has the ability to offer quality paddling opportunities through spillage events. This site would be a very good location to develop a whitewater park, where at moderate flows canoeists and kayakers could use the run for surfing waves and for acrobatic tricks called freestyle paddling.

On- or off-site mitigation for the loss of whitewater should also be evaluated in relation to the loss of at least five significant rapids at Wilder Dam and Bellows Falls Dam, including at least three rapids in Olcott Falls, the rapids now drowned under the reservoir at Bellows Falls, and the Bellows Falls dewatered bypass reach.

In the following study requests, we additionally address impacts of and study needs for the Bellows Falls Project, including issues of multiple-day river trips including the woeful portage trail, historical and cultural resources, and the financial health of the operator and decommissioning funds.

All studies requested here should contain projections for use by the public during the 30year life of the proposed license, and the adequacy of all facilities and mitigation for that time period, as well as how existing impediments discourage public use currently.

The recreational use of the resources at this project has the potential to add significant economic value to the region given its central location and its proximity to Dartmouth College, Norwich University, and the communities of Bellows Falls, Springfield, and White River Jct., Vermont, as well as Lebanon, New Hampshire. Millions of people live within a three-hour drive.

In addition to recreation and aesthetics, we recognize that flow-related decisions also affect economic factors related to power generation and other environmental variables. We look forward to exploring how all flow values relate to one another through participation in this relicensing process.

Issue #1: Impacts of the Bellows Falls Dam on Multiple-Day Self-Propelled Trips on the Connecticut River.

The Bellows Falls Dam owned by TransCanada blocks the river to downstream navigation.

In the scoping area of recreation, the AMC has an interest in the creation of improved opportunities for multiple-day canoe and kayak trips on the Connecticut River, along with facilities that would also accommodate rowing shells. When compared to other regions of the country, New England generally does not have a lot of opportunities for multiple-day canoe trips with the exception of several rivers in far northern Maine, such as the St. John and Allagash, which are many hours from population centers. The Connecticut River runs from northern New Hampshire to Long Island Sound. It passes through several major population centers and is easily accessible from all the cities in New England as well as the greater New York City area with populations in the millions.

The most serious obstacles to multiple-day trips on the Connecticut River are the hydropower dams themselves. Access points and campsites are inadequate. The portage trail routes visitors along a busy state highway. A study is needed to examine the feasibility of relocating this portage trail along a safer route. Additional land-based amenities could be added such as potable water, toilets, and campsites that would be used by paddlers engaged in multiple-day trips on the river.

In preliminary application documents, the Licensee cites the New Hampshire SCORP, which identified the need for a variety of recreational opportunities. The Vermont SCORP (2005-2009) reveals the need for access to all types of outdoor recreation. Multiple-day canoe, kayak or rowing trips certainly meet the needs identified in the SCORP documents, but such trips are severely limited by the operations of the Bellows Falls hydropower dam.

Facilities such as portages, campsites, and boat ramps exist, as detailed in the PAD. But for multiple-day trips, or for paddlers or rowers seeking to navigate the length of the Connecticut River, the dams discourage such travel. Fisheries biologists have suggested that migrating fish tire after the second fish ladder. Canoeists faced with the cumulative obstacles presented by the hydropower dams become similarly discouraged and abandon their efforts to migrate downriver.

In the PAD, the Licensee proposes no enhancements to mitigate the project effects on multiple-day canoe and kayak recreational use.

Issue #2: Impacts of the Connecticut River Flow Diversion on Recreational Paddling at the Bellows Falls Bypass Reach.

The Bellows Falls project contains a .7-mile diversion that reduces in-stream flows completely except for some leakage. Any natural boatable flows under flood spillage are

inaccessible, high, flashy, unpredictable, and are only available during periods of seasonal high spillage due to flooding. Near the bottom of the reach, a low-head weir was installed that might make paddling hazardous. The current operation of the project eliminates any valuable seasonal paddling opportunities.

This recreation-flow relationship would need to be substantiated through both operational analyses and recreational analyses. Controlled flow studies have been done on dozens of FERC projects. The correct context to conduct this inquiry is through the use of a controlled-flow analysis. Doug Whittaker, Bo Shelby, and John Gangemi describe the techniques for controlled-flow studies in *Flows and Recreation: A guide to studies for river professionals* (2005), p. 26-29, available from the National Park Service website at: http://www.nps.gov/hydro/flowrec.pdf

Most natural boatable flows have been eliminated because of the dam. The current operation of the project eliminates valuable seasonal paddling opportunities. In the PAD, the Licensee proposes no flow enhancement to mitigate the project's effects on whitewater recreational use.

Issue #3: The Opportunity to Create a Whitewater Park at the Bellows Falls Bypass Reach.

Many of the paddling opportunities eliminated by the project could be restored by the development of a whitewater park with moderate, stable, and predictable whitewater flows that could be used from the late spring through early fall months.

The Bellows Falls bypass reach is a prime opportunity to create a whitewater park that could be of enormous economic value to the Bellows Falls, Vt., and Walpole, N.H., communities, as well as the wider region. A professional designer of such parks—one with river engineers who have experience in constructing whitewater parks—should be hired to assess the opportunities. The power company should be required to remove the low-head weir that now serves no function under the railroad bridge at the bottom of this reach.

Issue #4: Rescuing Important Historical, Educational, and Cultural Records.

The Bellows Falls Dam has a significant historical background. The first bridge across the Connecticut was built on project lands, and there are Indian pictographs in the rocks of the bypass reach. The dam itself was constructed in 1928. The Connecticut River was known as a passage for Native Americans, then European settlers, and now modern citizens. Some villages were removed when the impoundments were created. These people had used the river for transportation, fishing, transporting furs and other commerce just as did the native population.

The AMC has an active volunteer and staff educational program, and the AMC has an interest in the educational benefits that should be provided to the public by the hydropower operators on the Connecticut River. Informational signage and kiosks at project facilities can promote education about invasive species, water flows, the history of the area, who to call with problems, and what to do to get involved. Such educational improvements should be coordinated with recreational improvements. Bellows Falls has an active historical society working to revitalize the waterfront area. There is an opportunity to partner with the society to develop interpretive material of interest to visitors.

This relicensing offers two educational opportunities that should be addressed in a study. First, the Licensee can provide assistance to visitors, schools, and river travelers to better understand the remarkable history of the Project and of the area. Second, this relicensing offers perhaps a last chance to rescue important historical records held by the Licensee related to the design and construction of the hydropower facilities, as well as historical, pre-project conditions. The study should determine what historical records remain, and make suggestions for their safe storage, for how they can be made publicly accessible, and for improvements at the projects to highlight the historical significance of the facilities to the public.

Issue #5: Economic Health and Decommissioning.

Energy markets have changed dramatically in the past decade. The ownership turnover of energy facilities has been dramatic. Climate change may cause more frequent catastrophic and extraordinary events in coming years in the Connecticut River Valley. Tropical Storm/Hurricane Irene in 2011 washed out some portion of almost every state highway in Vermont except the Interstates. With the possibilities of millennial weather events occurring with much greater frequency and the ongoing dramatic changes in the competiveness of current energy generating sources, we believe that a study should assess the need for escrowed decommissioning funds or trust funds for all hydroelectric facilities currently up for new licenses. Many outdated and derelict dam removals today are coming at the expense of public dollars.

We recommend a study to determine the appropriate decommissioning costs at the end of this project's lifetime and how such costs should be funded in escrow in advance. In an age of international ownership, deregulation, changing ownership, and climate change, the financial health of ownership can be brought into jeopardy by distant events or by weather-related catastrophic failure of a dam. The public should not be burdened with decommissioning costs.

Study Requests

We hereby request five studies per 18 CFR 5.9(b).

1. Study of Project Facilities to Support Multiple-day Self-Powered Boating Trips on the Connecticut River.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

We recommend a study of the quantity, quality, and adequacy of land-based recreational facilities operated by the Bellows Falls Licensee that are associated with boating on the Connecticut River. This study should examine put-in and take-out facilities especially for canoes, kayaks, rowing shells and other self-powered watercraft; portage routes; campsites; parking and road access; seasons of operation of the facilities to match with actual river use; maintenance; water supplies and other amenities at campsites; and trash and sanitary facilities. The study should include a projection of usage during the proposed 30-year life of the license, and opportunities for the Licensee to buy land from willing sellers in order to increase and safeguard recreational benefits for the project's tenure.

The study should examine the facilities that are necessary specifically for canoe, kayak and rowing shell access to the river. Information from the state SCORP studies and from other river recreational interests suggests that interest in quiet water paddling is rising along with the sales of sea kayaks, rowing shells and canoes. Most of the existing facilities in the Bellows Falls region were designed for day use by motorboats. Motorboat launch ramps are not particularly suited to canoeists, especially those using wood-andcanvas or fiberglass canoes (e.g., sand works better than concrete).

Paddlers who have attempted to follow the Connecticut River to the sea report that portages and camping can be difficult. Campsites are few and far between. Islands are often posted as off-limits. Campsites can often be overcrowded and a recent study by the Connecticut River Paddlers' Trail documented their poor condition. The study found that the existing campsite above the Bellows Falls impoundment (Lower Meadow Campground) lacks safe river access.

Competition for campsites is not uncommon, and the study might look at ways to minimize such conflicts. The Connecticut River Paddlers' Trail organization states the ideal frequency of canoe campsites is one for every five river miles, accompanied by canoe and kayak access in every town. Current facilities don't meet that standard.

The portage trail at Bellows Falls could be significantly improved. The portage is currently 1.5 miles long, and for most of that distance follows the breakdown lane of a high-speed state highway, New Hampshire Route 12. The guidebook to the river suggests that TransCanada can send a truck to pick up paddlers, but the Licensee no longer does that. Jeff Feldman from Hartford, Conn., who has paddled all 410 river miles in one-week stages over five years, said, "People were pretty in awe when they saw four guys and a

dog with two canoes. The only part that was really dangerous was where the sidewalk ended and we had to stay in the road." Trucks and cars create gusts of wind as they pass, which threaten to pull paddlers and boats onto the highway. There have to be better options.



Bellows Falls portage trail along N.H. Route 12 (Photo: Jeff Feldman)

Trails on both land and water should be studied. The Connecticut River Paddlers' Trail and the Connecticut River Birding Trail cross several project boundaries. Their interests should be part of a study framework that takes a watershed viewpoint, especially as it involves trail networks and associated facilities.

The ownership of project lands at all the facilities should be studied for recreational and conservation improvements. Some project lands could be added to existing park facilities, or placed under permanent conservation restrictions, in order to improve conservation and recreation. One example includes project lands near the Herrick's Cove Park in Rockingham, Vt., which is part of the Bellows Falls Project.

The public has an interest in trails in the vicinity of project lands. The study should evaluate the adequacy and maintenance of existing trail systems for the next 30 years, and determine opportunities for additional hiking trails on project lands, and for linking those trails to existing trails. Such trails in the watershed could cross project boundaries, and adding to them could involve requiring the Licensee to purchase additional land. In association with this study, the creation of the Connecticut River and Watershed National Blueway should be taken into account, along with ways that the Bellows Falls Project can contribute to that effort. The study should take into consideration impacts on the entire watershed.

As part of this study, for example, a survey should seek to determine why people do NOT use this great public resource in the Bellows Falls reach. The cumulative discouragement of recreation on the Connecticut River may displace users to other areas of the watershed. As with upstream migration of fish and downstream migration of canoeists, the survey might identify several discouraging aspects of project operations that could be corrected during relicensing.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;

None of the three requesters is a resource agency. However, several state and federal agencies have an interest in recreation and conservation on the Connecticut River.

The Connecticut River Joint Commissions, created by the legislatures of Vermont and New Hampshire in the late 1980s, is directed to cooperate with each other to preserve and protect the resources of the Connecticut River Valley, and to guide its growth and development. In 2009, CRJC's five local river subcommittees completed a major update of their recreation plan for the river region. The study is aligned with several of the headwaters subgroup's top ten priorities, which aim to:

- Encourage protection of open space for public recreation and scenic views. Towns should take advantage of opportunities to conserve riverfront land for public access, trails, birding, or other recreation. Land conservation organizations should help protect scenic views and open space, especially along the river, providing public recreation access for birding, car-top boats or trails.
- Provide more primitive camping opportunities. *Parks and recreation agencies should help recreation groups and local volunteers to establish and coordinate a new water trail of dispersed primitive canoe campsites in the region to help prevent trespassing and disperse camping impacts.*

The states of Vermont and New Hampshire manage recreational sites in the vicinity of the TransCanada facilities. There is a clear interest in the public's ability to traverse the Connecticut River in boats. The Connecticut River Atlantic Salmon Commission (CRASC), the Vermont Department of Fish & Wildlife (VT-F&W), the U. S. Fish & Wildlife Service (USF&W), and the National Marine Fisheries Service (NMFS) have a clear interest in the passage of anadromous and other migratory fish including shad, blueback herring, eels and other species through fish ladders at the Bellows Falls Dam.

Beyond the fisheries agencies, several federal agencies have an interest in recreation and conservation on the Connecticut River. On May 24, 2012, Secretary of the Interior Ken Salazar designated the Connecticut River and Watershed as the nation's first National

Blueway. A Memorandum of Understanding signed in August 2012 by the departments of Interior, Agriculture, and the Army has as one objective "providing opportunities for scientific research, environmental education and outdoor recreation and access within the National Blueway to the extent compatible with agency missions." The National Blueway concept takes a watershed viewpoint and addresses the river from its source to the sea. The National Blueways System has as its goal "to advance a whole river and watershed-wide approach to conservation, outdoor recreation, education, and sustainable economic opportunities in the watersheds in which we live, work, and play." The National Blueway designation includes all the tributaries in the watershed and involves several federal and state agencies, including the U.S. Army Corps of Engineers, the Silvio Conte Refuge, U.S. Fish and Wildlife Service, the National Park Service, and the States of Connecticut, Vermont, New Hampshire, and the Commonwealth of Massachusetts, which have prioritized conservation, recreation, and restoration in the 7.2 million-acre Connecticut River Watershed.

(3) If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

The Bellows Falls dam on the Connecticut River creates obstacles to public navigation and recreation on the river. Conducting the necessary studies and implementing the measures needed to ensure the public has access to quality outdoor recreational resources are in the public interest. It is widely accepted that outdoor recreation has significant benefits to participants including health, well being, and quality-of-life. Outdoor recreation also has proven economic benefits for communities located near recreational resources.

Improvement in opportunities for multiple-day canoe, kayak and rowing trips on the Connecticut River has the potential to offer the region significant economic benefits.

Project operations have created serious aesthetic issues along the route of the Connecticut River. The dry bypass reach at Bellows Falls is an aesthetic sore spot on the river. Even worse, the dam substitutes its industrial appearance for the naturally scenic rapids and falls that graced the Connecticut River at Bellows Falls. The public has an interest in the scenic values of this major public resource.

(4) Describe existing information concerning the subject of the study proposal, and the need for additional information.

There is an inconsistent body of knowledge regarding multiple-day trips on the Connecticut River. The PAD produced by the Licensee lists many facilities that are not owned or operated by the Licensee, including commercial operations that may have a brief lifespan. There is a lack of consistency about those facilities in terms of their seasons of use and what amenities exist for public recreational use and their long-term protection. Several publications are widely used by paddlers and recreationalists. The primary source of information is *The Connecticut River Boating Guide: Source to Sea* (3rd ed.) published by the Connecticut River Watershed Council (2007). Recreational maps and guides to the river have been published for some reaches by KM Digital Productions in South Hadley, Mass., and are available from the Connecticut River Watershed Council. These foldout river maps cover the reaches from Bellows Falls to Vernon, Vt. (2011), and from Vernon, Vt., to Turners Falls, Mass. (2008). Most of those maps are in need of updates. In 1991, New England Cartographics in Amherst, Mass., published the *Connecticut River Guide in Massachusetts* by Doug Greenfield and Christopher J. Ryan. The Connecticut River Birding Trail organization located in White River Junction, Vt., has published maps detailing the upper valley section, the northern section, and the southern section of the river.

The Connecticut River Paddlers' Trail organization has a report that assesses the quality of campsites. Noah Pollock of the Vermont River Conservancy prepared a site assessment and recommendations for the power company titled *TransCanada Hydro Northeast Connecticut River Paddlers' Trail Campsites*. The undated report examined campsites at Vernon and Bellows Falls and concluded that most were in "fair to good shape." Incidentally, the report also exposes the inconsistency and lack of maintenance at the project campsites. In 2013, the organization also published a Connecticut River Paddlers' Trail map of the river.

The Connecticut River Joint Commissions updated the Recreation Chapter of the Connecticut River Corridor Management Plan recently — there are six volumes, all posted online at: <u>http://www.crjc.org/river-plan/recreation-management-plan/</u> The Upper Valley, Mount Ascutney and Wantastiquet plans will be most relevant as they each contain a section on boating for that section of the river.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

The Bellows Falls Dam prevents navigation downstream on the main stem of the Connecticut River. Project owners have a responsibility to the public to provide adequate portage trails and facilities that promote public recreation on the river, including access points and campgrounds with necessary amenities. This study will be the defining mechanism for identifying additional sites that can best be adapted for increasing public access and multiple-day paddling trips on the Connecticut River. License requirements may include having the Licensee purchase additional property to provide camping, trail sites, portages or other facilities to assist the public.

The study may also identify indirect effects if the hydropower facilities and their projects have discouraged public use of the Connecticut River or displaced recreation to other parts of the watershed.

Cumulative effects need to be studied because it appears that the number of dams on the river discourages multiple-day trips and has fragmented the recreational experience. This study may result in license requirements or other mitigation for the Licensee regarding multiple-day trips on the Connecticut River.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

Studies of the adequacy of public resources are fairly standard in the planning field. Methodologies can be selected from among the recognized and accepted standards of the resource and public planning fields. Surveys of people who do NOT use the river or are displaced can employ randomized samples from several databases. Sufficient information is available from the guidebooks and maps of the river that identify access points and campsites, as well as information contained in the PAD. The sites evaluated should be operated or funded by the Licensee, not by others. Once a consultant is selected and approved, the information should be gathered and analyzed in a timely manner. The study would probably need a summer field season to locate river users for an adequate sample. A consultant with experience in similar projects should be selected, in part to create relevant comparisons to other hydropower projects around the country.

The AMC has some staff expertise in this area because it operates facilities in the White Mountains, in Maine, and elsewhere in its chapters. We will work with the Licensee to document the known information regarding the river. We will provide volunteers and technical support for the studies when possible as appropriate. We hope to work collaboratively with the Licensee on this study.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

There are several sites along the Connecticut River, private and public, that are used as access points or have camping facilities. However, there are vast differences in the ability or capacity of these sites to handle paddling groups with varying sizes or sanitation needs. Because there is no comprehensive guide or text that provides updated information, field inspection of existing sites should take place. Any needed reconstruction or rehabilitation of existing facilities should be identified. This analysis can be completed during any spring, summer, or fall field season.

Such field research needs to be matched with projections of use in the future and with standard requirements for access sites, campsites, portages, sanitation facilities and other amenities. We know of no other method to acquire this information for evaluation.

2. Controlled Whitewater Flow Study in the Bypass Reach below the Bellows Falls Dam.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

As stated in the American Whitewater and New England FLOW study requests, the goal of a whitewater flow study is to assess the presence, quality, access needs, flow information needs, and preferred flow ranges for river-based boating resources in a stepwise manner. The information to be obtained can be generally characterized as quantitative and qualitative descriptions of:

- The range of optimal and acceptable flows for whitewater paddling in a whitewater park setting;
- The frequency, timing, duration and predictability of optimal and acceptable paddling flows under current conditions and how proposed alternative operations could be used in a whitewater park (Note: the bypass reach currently has no minimum flow);
- The access needs of whitewater boating use and the current and potential river access options for a whitewater park and other paddling;
- The flow information needs of whitewater boating and the current and potential flow information distribution system;
- The location, challenge, and other recreational attributes associated with specific rapids and other river features in the development of a whitewater park.

Thus, the information to be obtained for the whitewater park study is a combination of user-generated flow preferences and other engineering information on current and proposed operations (e.g., discharges), geographic information and basic recreational information.

In simpler terms, the Bellows Falls Dam would release prescribed flows into the bypass reach for this test, perhaps over two days. For each release, a selected group of paddlers would run the rapid and then answer written questions about their experiences at that flow level. The Bellows Falls Dam would release several different flows, measured in cubic feet per second, and the paddlers' experiences would be analyzed to determine the flows that work best at the rapid.

The goals include evaluating this stretch of river for use as a whitewater park, and evaluating the flows at which the run could best be utilized. In this case, river engineers with experience constructing whitewater parks, such as the McLaughlin Whitewater Design Group of Denver, Colo., should participate in designing the controlled-flow study.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

None of the three requesters is a resource agency.

The Licensee owns and operates several river access areas on the Connecticut River within project boundaries, and the states of Vermont and New Hampshire manage additional sites in the vicinity of the Project. There is a clear interest in the public's ability to traverse the Connecticut River in boats. In addition to this interest the Connecticut River has been designated as America's first National Blueway.

On May 24, 2012, Secretary of the Interior Ken Salazar designated the Connecticut River and Watershed as the nation's first National Blueway. A Memorandum of Understanding signed in August 2012 by the departments of Interior, Agriculture, and the Army has as one objective "providing opportunities for scientific research, environmental education and outdoor recreation and access within the National Blueway to the extent compatible with agency missions." The National Blueway concept takes a watershed viewpoint and addresses the river from its source to the sea. The National Blueways System has as its goal "to advance a whole river and watershed-wide approach to conservation, outdoor recreation, education, and sustainable economic opportunities in the watersheds in which we live, work, and play." The National Blueway designation includes all the tributaries in the watershed and involves several federal and state agencies, including the U.S. Army Corps of Engineers, the Silvio Conte Refuge, U.S. Fish and Wildlife Service, the National Park Service, and the States of Connecticut, Vermont, New Hampshire, and the Commonwealth of Massachusetts, which have prioritized conservation, recreation, and restoration in the 7.2 million-acre Connecticut River Watershed.

The Connecticut River Atlantic Salmon Commission (CRASC), the Vermont Department of Fish & Wildlife (VT-F&W), the U. S. Fish & Wildlife Service (USF&W), and the National Marine Fisheries Service (NMFS) have a clear interest in the passage of anadromous and other migratory fish including shad, blue-back herring, eels and other species through fish ladders at Bellows Falls Dam. Although the federal Atlantic Salmon Restoration Program has been recently curtailed, some of the above agencies continue to study and promote the effective upstream and downstream passage of many endangered or threatened species. The State of New Hampshire, however, has terminated its salmon restoration program. This reach of the river is in New Hampshire.

(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

The Bellows Falls bypass reach offers the public an opportunity to enjoy a high quality whitewater boating resource. Conducting the necessary studies and implementing the measures needed to ensure the public has access to high quality outdoor recreational resources are in the public interest. It is widely accepted that outdoor recreation has significant benefits to participants including health, well being, and quality-of-life. Outdoor recreation also has proven economic benefits for communities located near recreational resources.

Restoration of recreation opportunities in this de-watered stretch of the Connecticut River has the potential to offer the region significant economic benefits as well as aesthetic benefits. Dryways are ugly. A woman from nearby Walpole who commented at the scoping hearing said this section of Bellows Falls had become a "sad human landscape—shabby." She said there was lots of potential in the reach, both recreationally and historically. This portion of the Connecticut River contained Hale's first bridge across the Connecticut in the 1700s, and the long history of Native American use is evidenced by pictographs on both sides of the natural riverbed below the Vilas Bridge.

FERC has concluded that "to fully evaluate the project's effect on whitewater recreation opportunities and to balance potential enhancement opportunities with their cost, a controlled-flow whitewater boating study is relevant to Commission's public interest determination." This is equally true regarding the Bellows Falls Project on the Connecticut River.

(4) Describe existing information concerning the subject of the study proposal, and need for additional information.

While many controlled-flow studies as described above have been conducted on New England's rivers (Deerfield, Kennebec, Rapid), this section of the Connecticut River is never used. The potential for developing a new, high quality whitewater run as a recreational facility should not be ignored.

Current and historic project operations, however, provide no meaningful information and have virtually eliminated all stable, low and moderate flows from this reach. The result has been flows too low to paddle, or flashy, spiking flows on the order of 50,000 cfs. Intermediate paddlers, commercial paddlers, and general river-runners know little about this river bypass reach under any flow conditions.

Doug Whittaker, Bo Shelby, and John Gangemi describe the techniques for controlledflow studies in *Flows and Recreation: A guide to studies for river professionals* (2005), p. 26-29, available from the National Park Service website at: http://www.nps.gov/hydro/flowrec.pdf

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

The Bellows Falls diversion project controls the entire flow in the Connecticut River with the exception of releasing the *"required minimum flow of 1,083 cfs or inflow, whichever is less"* into the main stem river, when generating, or during floods. The bypass reach has no minimum flow, but there is leakage from the dam into the natural riverbed. The result is the virtual elimination of valuable and regionally needed summer paddling opportunities in the bypass reach. The Connecticut River can be a high-quality paddling resource, and since paddling is a flow-dependent activity, the project directly affects paddling on the Connecticut River. The project nexus is direct.

Results of this study may produce evidence supporting mitigating license requirements for scheduled releases in the bypass reach.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

We request a whitewater study of the Bellows Falls bypass reach of the Connecticut River. It should follow the standard methodology of a controlled-flow study as described in Whittaker et al., cited above. This methodology is designed to gather information to assess the presence, quality, and preferred flow ranges for river-based boating resources in a step-wise manner. The process steps are generally 1) desktop analyses, 2) on-land feasibility assessment, 3) on-water single flow assessment, 4) on-water multiple flow assessment.



Bellows Falls bypass reach, October 2012. Viewed from the dam.



Bellows Falls lower bypass reach, high flows, May 1940.

Because the quality of the resource and the flow needs are unknown, we request an onwater multiple flow assessment be conducted. These studies will need to take place on various and variable dates throughout a spring and summer. Spring dates are needed to capture moderate to high flows, while late spring and summer dates afford the opportunity for scheduled lower flow releases.

We will work with the Licensee, as we have in the past, to document the known information regarding the river. The AMC and other paddling groups can provide volunteer paddlers and technical support for the studies as appropriate. We hope to work collaboratively with the Licensee on this study. The whitewater boating study methodology we have requested has been used on dozens of other FERC regulated rivers, including other studies done in conjunction with New England Power whose projects are now owned by TransCanada.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

The Appalachian Mountain Club is willing to work with the Licensee on the whitewater paddling controlled-flow study to keep costs reasonable and the quality of information high. Any information that is already known can jump-start the study process and avoid un-needed effort. What will be subsequently needed is the integration of this information and then an organized flow study during which several flows are paddled by boaters, with still image and video documentation, surveys of the boaters, a guided conversation among the boaters, and subsequently a written report.

Some preliminary work is needed. This is a bypass reach with limited access and relatively unknown hydrology. Prior to conducting paddling runs in the bypass reach, we recommend that the Licensee remove the small low-head weir at the base of the run and restore the natural shape of the river in consultation with whitewater engineers. The collaborative approach sought by the paddling community including in-kind contributions of time and expertise should help consultants complete these studies on behalf of the Licensee for a reasonable cost.

The Licensee PAD proposes no whitewater feasibility analysis. This no-action step will reveal nothing about project impacts on whitewater recreation or opportunities for protection, mitigation, or enhancement measures. We currently do not know the relationship between specific low and moderate flows and the paddling experiences they provide. A desktop analysis cannot generate this information. Without this information we cannot fully define the project impacts, nor propose and consider provision of releases that provide targeted recreational experiences.



Lowest portion of Bellows Falls bypass reach at low water below Vilas Bridge, 2012.

3. Study of the Potential to Create a Whitewater Park in the Bellows Falls Bypass Reach.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

The goals include evaluating this stretch of river for use as a whitewater park, and evaluating the flows at which the run could best be utilized.

In this case, river engineers with experience constructing whitewater parks, such as the McLaughlin Whitewater Design Group of Denver, Colo., should examine the reach and determine its potential. The same engineers might participate in designing the controlled-flow study requested above.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

None of the three requesters is a resource agency. The National Park Service may have an interest in a whitewater park at Bellows Falls. We do not know of the specific interests of other state and federal agencies in designing a whitewater park.

(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

The Bellows Falls bypass reach offers the public an opportunity to enjoy a high quality whitewater boating resource with the development of a whitewater park. Conducting the necessary studies and implementing the measures needed to ensure the public has access to high quality outdoor recreational resources are in the public interest. It is widely accepted that outdoor recreation has significant benefits to participants including health, well being, and quality-of-life. Outdoor recreation also has proven economic benefits for communities located near recreational resources.

Restoration of recreation opportunities in this de-watered stretch of the Connecticut River has the potential to offer the region significant economic benefits as well as aesthetic benefits. Renewing this bypass reach and the surroundings would fit with the goals of the towns of Bellows Falls and Walpole. This portion of the Connecticut River contained Hale's first bridge across the Connecticut in the 1700s, and the long history of Native American use is evidenced by pictographs on both sides of the natural riverbed below the Vilas Bridge. Considerable economic benefits could rise from a whitewater park.

(4) Describe existing information concerning the subject of the study proposal, and need for additional information.

The potential for developing a new, high quality whitewater park as a recreational facility should not be ignored. This is a new idea that has not been studied in the Bellows Falls area in the past.

Current and historic project operations provide no meaningful information and have virtually eliminated all stable, low and moderate flows from this reach. The result has been flows too low to paddle, or flashy, spiking flows on the order of 50,000 cfs. Intermediate paddlers, commercial paddlers, and general river-runners know little about this river bypass reach under any flow conditions.



Fish and boat passage project on the Gunnison River (Photo: McLaughlin Group)



Lower Chattahoochee whitewater park (Photo: McLaughlin Group)

It should be determined if there is adequate potential to build a whitewater park that offers a quality whitewater resource with adequate put-in, take-out, and return facilities that allow for use of the entire bypass reach.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

The Bellows Falls project diverts the entire flow in the Connecticut River except during flood events when water enters the bypass reach. The bypass reach has no minimum flow, but there is leakage from the dam into the natural riverbed. The result is the virtual elimination of valuable and regionally needed summer paddling opportunities in the bypass reach. The Connecticut River can be a high-quality paddling resource, and since paddling is a flow-dependent activity, the project directly affects paddling on the Connecticut River. The project nexus is direct.

On- or off-site mitigation for loss of whitewater should also be evaluated in relation to the loss of Olcott Falls at and above the Wilder Dam, the rapids drowned beneath the Bellows Falls reservoir, and the loss of the rapids in the bypass reach.

Results of this study may produce evidence supporting mitigating license requirements for a whitewater park and scheduled releases in the bypass reach.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally

accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

We request a feasibility study for the establishment and construction of a whitewater park with possible fish passage using the design standards such as those developed by the McLaughlin Whitewater Design Group.

As experienced engineers, designers and hydrologists, they have worked extensively with municipalities, public utilities, the U.S. Army Corps of Engineers, and paddling groups throughout the United States. Their analysis should recommend whitewater structures to improve the run, and the work required to construct public access put-in, take-out return shuttle facilities for boaters, and possible additional fish passage.

The AMC will work with the Licensee, as we have in the past, to document the known information regarding the river. We will provide volunteer paddlers and technical support for the studies as appropriate. We hope to work collaboratively with the Licensee on this study.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

The Appalachian Mountain Club is willing to work with the Licensee and its consultant on the whitewater park study to keep costs reasonable and the quality of information high.

Some preliminary work is needed. This is a bypass reach with limited access and relatively unknown hydrology. We recommend that the Licensee remove the small low-head weir at the base of the run and restore the natural shape of the river in consultation with whitewater engineers. The collaborative approach sought by the paddling community including in-kind contributions of time and expertise should help consultants complete these studies on behalf of the Licensee for a reasonable cost.

The Licensee PAD proposes no whitewater feasibility or whitewater park analysis. We currently do not know the relationship between specific low and moderate flows and the paddling experiences they might provide. A desktop analysis cannot generate this information. Without this analysis of the potential for a whitewater park, we cannot fully define the project impacts, nor propose and consider provision of releases that provide targeted recreational experiences.

4. Study of the Proper Presentation and Preservation of Important Historical Resources.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

Two types of important historical data should be studied in the relicensing of the Bellows Falls Dam.

First, a study should be done to determine a variety of options for educating the public about the Bellows Falls site. Indians inhabited the site for thousands of years, leaving behind some pictographs on both sides of the Bellows Falls bypass reach. Historic bridges and mills were present prior to the dam. The Licensee can and should contribute to the public benefit through educational outreach and displays concerning the history at the site. Informational signage and kiosks at project facilities can and should promote education about invasive species, water flows, the history of the area, who to call with problems, and what to do to get involved. Existing data should be archived and be publicly accessible. These educational improvements should be coordinated with recreational improvements. These questions should be addressed in this study concerning the "proper presentation" and preservation of history.



Sign leading to nowhere near Vilas Bridge, Bellows Falls, Vt.

The second sort of historical record here came from the construction of the Bellows Falls Dam in the late 1920s. The engineers who built this dam were highly skilled. They detailed each step of construction with carefully drawn documents and many photographs. These documents are now historical records and should be preserved.

We have an interest in the historical study of the river as it existed prior to the construction of the dams, including photographs of the natural riverbed. This will reveal what was lost during dam construction. TransCanada has easy access to around 24 scrapbook volumes of these records and photos. Each volume is numbered, but the numbers suggest there may be a total of 300 or more scrapbooks in existence. A study should determine what historical records remain and make suggestions for their safe storage, such as in a secure location or a library. The dam has changed hands repeatedly and is now owned by a Canadian corporation. These records should be preserved before they are lost in transition.

The dam was constructed in 1928 and is therefore old enough to be eligible for listing on the National Register of Historic Places. The canal associated with the dam is of itself highly significant, being the first such canal built in the United States.



(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

None of the three requesters is a public resource agency, although the AMC does keep a library of historical photographs and records at its headquarters on Joy Street in Boston. The tasks here are properly the concern of state historical preservation agencies. Indian tribes still in the area might have an interest, as well.

(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

Historical records are a valuable public resource. A traditional Native American fishing site on the Connecticut River is part of the collective heritage of Americans. For social, cultural and industrial historians, the records from construction of these dams will become a valued scholarly asset. They should not be lost because of ownership transitions, neglect, or because their value may not be recognized by a corporate employee.



Indian pictographs on river right, to the right of the yellow markers, below Vilas Bridge.

(4) Describe existing information concerning the subject of the study proposal, and need for additional information.

Traditional Indian sites have a chance of preservation under current laws. That's not the point. The question is how can the operator of the Bellows Falls Dam benefit the public through the presentation of the historical issues at the site? That's where a study could suggest various opportunities.

The need for additional information here involves the documents in possession of TransCanada related to the original construction of the Bellows Falls Dam and to the original condition of the river.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

Clearly the Licensee has in its possession scrapbooks, photographs, construction plans, and other historical records related to the construction of the dams, or at least some

surviving remnant of such documents. The nexus there is direct. Preservation of such documents should be a license requirement and they should be publicly accessible.

Concerning the colonial and ancient history around Bellows Falls, FERC might require an educational component in the license requirements that could assist the public in understanding its history. This might be through direct Licensee action or through indirect support of appropriate institutions in Bellows Falls.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

In this case, tribal values and knowledge may be relevant in the case of Bellows Falls. The study methodology regarding interpreting Native American use of the area should be left to the tribes, and to professional historians, anthropologists, and archeologists.

Historians and librarians could recommend how to handle and preserve the scrapbook records and other historical information about building the dams.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

Most of the work in locating the records owned by TransCanada would be internal, with advice and recommendations coming from professional historians after the scope and location of the documents is known.

5. Study of the Economic Health of Ownership and Creation of a Decommissioning or Trust Fund.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

We request a study on the creation of a decommissioning fund or trust fund to protect the public interest. New England's rivers are littered with abandoned dams. Over the centuries, companies have failed, and weather events or human error have crippled dams that were then simply left behind. . Energy markets and ownerships have been changing quickly.

A "perfect storm" event, might breach one of the Connecticut River dams. These are elderly facilities, this one dating from 1928. The projected capacity at Bellows Falls Dam was exceeded in the 1936 flood.

Distant events, changing regulations, new energy sources, currency devaluations or unfortunate weather events could compromise the health of the project. If something happened, the public should be insured against the burden of decommissioning costs. A study should recommend the terms of a license requirement for a decommissioning fund.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;

We are unaware of the resource agencies' jurisdiction over decommissioning funds.

(3) If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

The economic security of a federally licensed hydropower dam on the longest river in New England is clearly in the public interest. Many hydropower projects support robust recreation economies and they produce a public good by generating renewable forms of electricity.

But the historical record demonstrates—by the number of abandoned dams on New England's rivers—that the public should not accept the burden of industrial failure any longer. It has become common to create decommissioning funds at such federally licensed facilities as a way of insuring the public interest against having to pay for removal of a damaged facility or to take over from a failed corporation.

(4) Describe existing information concerning the subject of the study proposal, and the need for additional information.

We are unaware of any published information on the economic viability of the individual dams, which may need to be studied under a non-disclosure agreement, or of the performance of decommissioning funds or other trust funds for this purpose.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

There is a direct connection between Project operations and the economic viability of each individual dam. Study results could lead to a license requirement setting up an escrowed decommissioning or trust fund to protect the public interest.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

The financial viability portion of the study would follow normal procedures in accounting and financial management. The rules of trusts or decommissioning funds are well known.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

The requested study would be relatively inexpensive. Funding the trust would be another matter. We are unaware of alternative means of securing the public from risks that the corporations or the physical assets might fail during the course of the federal license.

Conclusion:

We respectively request the five studies described here, including an analysis of facilities for multiple-day river trips, a controlled-flow study, a study of a whitewater park, an investigation of historical and educational opportunities, and a decommissioning study. These studies will support dialog and analysis regarding the relicensing the Bellows Falls hydropower dam.

In addition, we offer our comments on the PADs to better inform this relicensing process. Thank you for considering these comments.

Respectfully submitted this 28th day of February, 2013.

Norman Sims Appalachian Mountain Club 16 Linden Ave. Greenfield, MA 01301 sims@honors.umass.edu

Kenneth Kimball, PhD Director of Research Appalachian Mountain Club P.O. Box 298 Gorham, NH 03581 <u>kkimball@outdoors.org</u>

Stephan Syz Vermont River Conservancy 29 Main Street Montpelier, VT 05602 ssyz@vermontriverconservancy.org

Noah Pollock President Friends of the Connecticut River Paddlers' Trail 55 Harrison Ave Burlington VT 05401 noah.pollock@gmail.com



Bellows Falls bypass reach, looking upriver, October 2012.

UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

TransCanada Hydro Northeast, Inc. Wilder Hydroelectric Project No. 1892-026

APPALACHIAN MOUNTAIN CLUB, VERMONT RIVER CONSERVANCY, AND THE FRIENDS OF THE CONNECTICUT RIVER PADDLERS' TRAIL COMMENTS AND STUDY REQUEST IN RESPONSE TO THE NOTICE OF INTENT TO FILE LICENSE APPLICATION, FILING OF PRE-APPLICATION DOCUMENT (PAD), COMMENCEMENT OF PRE-FILING PROCESS, AND SCOPING: REQUEST FOR COMMENTS ON THE PAD AND SCOPING DOCUMENT, AND INDENTIFICATION OF ISSUES AND ASSOCIATED STUDY REQUESTS REGARDING THE WILDER HYDROELECTRIC PROJECT, FERC PROJECT NO. 1892-026.

Since 1876, the Appalachian Mountain Club (AMC) has promoted the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of the Appalachian region. The AMC is a steering committee member of the Hydropower Reform Coalition based in Washington, D. C. The AMC is the largest conservation and recreation organization in the Northeast with more than 90,000 members, many of whom live within three hours of the Connecticut River and would enjoy this section as a daylong or longer trip. The AMC's interests in hydropower relicensing are mainly in the areas of conservation and recreation.

The Vermont River Conservancy protects public access, wildlife habitat, clean waters, scenic natural beauty and ecological integrity by conserving undeveloped land along rivers, lakes and wetlands of Vermont. Since 1995, working in cooperation with state and federal agencies, municipalities and other conservation organizations, VRC has completed projects at over 45 popular local swimming holes, gorges and waterfalls, fishing and boating accesses, protecting paddlers' trails and meandering river corridors for all to enjoy.

The Friends of the Connecticut River Paddlers' Trail is dedicated to building and stewarding primitive campsites, access points, and portage trails along the Connecticut River. The organization manages over 30 campsites and 70 access points that reach from the Connecticut River's headwaters south to the Massachusetts border. Efforts are underway to expand the trail into Massachusetts and Connecticut. The group includes representatives from conservation organizations, state and federal agencies, hydroelectric companies, and town conservation commissions that recognize the region's rich ecology and productive working landscape and seek to facilitate recreational use compatible with the Refuge's natural, social, and historic character.

Currently five hydropower projects on the Connecticut River are up for new federal licenses, with Wilder Dam being the farthest north. These five facilities influence about 168 miles of the longest river in New England, including creating 91 miles of reservoir that have fragmented the river and converted whitewater rapids into impoundments. The

impacts stretch from the upper reaches of the 45-mile long Wilder Project reservoir in New Hampshire and Vermont down to about Northampton, or possibly the Holyoke Dam reservoir, in Massachusetts. The watershed surrounding these projects encompasses a significant portion of the 7.2 million acres in the Connecticut River and Watershed National Blueway. This section of the Connecticut River has drowned three significant rapids at Olcott Falls under the reservoir and has another rapid, Sumner Falls, seven miles downstream. The main stem is of sufficient size for canoeing, kayaking and rowing for multiple-day trips, and flows through beautiful Appalachian countryside.

Rather than repeating some requests here, the AMC co-signed onto American Whitewater and New England FLOW's study requests for whitewater recreation and contingent valuation economic studies and hereby references them without repeating them in detail for brevity's sake. This includes controlled-flow studies as have been done on dozens of FERC projects, specifically at Sumner Falls, which is a popular kayak play spot used by paddlers from a wide region. The recreational values there would be improved by scheduled releases. On- or off-site mitigation for loss of whitewater should also be evaluated in relation to the loss of Olcott Falls at and above the Wilder Dam.

In the following study requests, we additionally address impacts of and study needs for the Wilder Project, including issues of multiple-day river trips, historical and cultural resources, and the financial health of the operator and decommissioning funds.

All studies requested here should contain projections for use by the public during the 30year life of the proposed license, and the adequacy of all facilities and mitigation for that time period, as well as how existing impediments discourage public use.

In addition to recreation and aesthetics, we recognize that flow-related decisions also affect economic factors related to power generation and other environmental variables. We look forward to exploring how all flow values relate to one another through participation in this relicensing process.

Issue #1: Impacts of Wilder Dam on Multiple-Day Self-Propelled Trips on the Connecticut River.

In the scoping area of recreation, we have an interest in the creation of improved opportunities for multiple-day canoe and kayak trips on the Connecticut River, along with facilities that would also accommodate rowing shells. When compared to other regions of the country, New England generally does not have a lot of opportunities for multiple-day canoe trips with the exception of several rivers in far northern Maine, such as the St. John and Allagash, which are many hours from population centers. The Connecticut River runs from northern New Hampshire to Long Island Sound. It passes through several major population centers and is easily accessible from all the cities in New England as well as the greater New York City area with populations in the millions. The most serious obstacles to multiple-day trips on the Connecticut River are the hydropower dams themselves. The Wilder Dam owned by TransCanada blocks the river to downstream navigation. Access near the population centers of Hanover, Norwich, and West Lebanon are nonexistent or inadequately developed and campsites are inadequate.

The primitive campsites in the Upper Valley are among the most popular destinations in the river. Use often exceeds their capacity. Furthermore, interest is growing. Campers often resort to camping illegally on islands, degrading sensitive ecological habitat. There is a need to establish additional primitive, well-managed campsites to meet this demand.

The portage trail at Wilder Dam is long, steep, and challenging to anyone carrying a canoe. In addition, the route does not accommodate travelers using portage carts to wheel their canoes. Once paddlers reach the bottom of a steep stone stairway, they must walk to the river through something resembling a sandbox mixed with football-sized stones. A shorter and safer path could be located on the other side of the river if a study recommends it. At the Sumner Falls site, there is a portage trail for river travelers who do not want to run the rapids. It could be improved and its land base should be secured for long-term protection. Additional land-based amenities could be used by play boaters at Sumner, by paddlers engaged in multiple-day trips on the river, and by visitors. Wayfinding signage is needed for visitors seeking to launch their boats in this region. In addition, in the vicinity south of Summer Falls is a river terrace that may be suitable for the establishment of a primitive campsite.



Wilder Dam portage, steep stone stairway.



Possible portage route on other side of the river.

In preliminary application documents, the Licensee cites the goals of the New Hampshire SCORP, which identified the need for a variety of recreational opportunities. The Vermont SCORP (2005-2009) reveals the need for access to all types of outdoor recreation. Multiple-day canoe, kayak or rowing trips certainly meet the needs identified in the SCORP documents, but such trips are severely limited by the operations of the hydropower dams.

Facilities such as portages, campsites, and boat ramps do exist, as detailed in the PAD. But for multiple-day trips, or for paddlers or rowers seeking to navigate the length of the Connecticut River, the dams discourage such travel. Fisheries biologists have suggested that migrating fish tire after the second fish ladder. Canoeists faced with the cumulative obstacles presented by the hydropower dams become similarly discouraged and abandon their efforts to migrate downriver.

In the PAD, the Licensee proposes no enhancements to mitigate the project effects on multiple-day canoe and kayak recreational use.

Issue #2: Controlled-flow Study at Sumner Falls.

Sumner Falls, also known as Hartland Rapid, can be found seven miles below Wilder Dam. It is a series of ledges sprawled across a wide section of the Connecticut River that creates a whitewater play spot of approximately one-quarter mile. There are many surfing waves and the area is an excellent place for training beginning boaters and for play boaters. A large eddy on river right allows boaters to easily paddle back upriver and repeat the run. At generation and higher flow levels this site provides excellent surfing and currents for squirt boating. At moderate flows the run provides opportunities to complete a wide array of acrobatic tricks called freestyle paddling. Wilder Dam drowned all three stretches of a significant 2.5-mile whitewater run known as Olcott Falls. Nothing will bring that back now. Scheduled releases at Sumner Falls would be scant compensation for that loss.



Sumner Falls at low water, October 2012.

Issue #3: Rescuing Important Historical, Educational, and Cultural Records.

In the scoping area of historical and cultural resources, relicensing these projects offers perhaps a last chance to rescue important historical records. TransCanada holds significant historical records related to the design and construction of the hydropower facilities on the Connecticut River. Engineers who constructed the dams made detailed drawings, inventories, and photographic records. We have an interest in the historical records of the river as it existed prior to the construction of the dams, including photographs of the natural riverbed at and above Wilder Station in the reach known as Olcott Falls. This will reveal what was lost during dam construction.

TransCanada has easy access to around 24 scrapbook volumes of these records and photos for its Connecticut River dams. Each volume is numbered, and the numbers suggest there may be a total of 300 or more scrapbooks in existence. A study should determine what historical records remain and make suggestions for their safe storage and for public access. This dam has gone through multiple ownership changes in recent years and is currently owned by a Canadian corporation. These records should be preserved before they are lost in transition.

The AMC has an active volunteer and staff educational program, and we have an interest in the educational benefits that should be provided to the public by the hydropower operators on the Connecticut River. Informational signage and kiosks at project facilities can promote education about invasive species, water flows, the history of the area, who to call with problems, and what to do to get involved. Such educational improvements should be coordinated with recreational improvements.

This relicensing offers perhaps a last chance to rescue important historical records held by the Licensee related to the design and construction of the hydropower facilities as well as to historical, pre-project conditions A study should determine what historical records remain, and make suggestions for their safe storage, for making them publicly accessible, and for improvements at the project to highlight the historical significance of the facilities to the public.



Olcott Rapids before the Wilder Dam was constructed.

Issue#4: Economic Health and Decommissioning.

Energy markets have changed dramatically in the past decade. The ownership turnover of energy facilities has been dramatic. Climate change may cause more frequent catastrophic and extraordinary events in coming years in the Connecticut River Valley, such as Tropical Storm/Hurricane Irene in 2011, which washed out some portion of almost every state highway in Vermont except the Interstates. With the possibilities of millennial weather events occurring with much greater frequency and the ongoing dramatic changes in the competiveness in current energy generating sources, we believe that a study should assess the need for escrowed decommissioning funds or trust funds for all hydroelectric facilities currently up for new licenses. Many outdated and derelict dam removals today are coming at the expense of public dollars.

We recommend a study to determine the appropriate decommissioning costs at the end of this project's lifetime and how such costs should be funded in escrow in advance. In an age of international ownership, deregulation, changing ownership, and climate change, the financial health of ownership can be brought into jeopardy by distant events or by

weather-related catastrophic failure of a dam. The public should not be burdened with decommissioning costs.



Wilder Station, October 2012

Study Requests

We hereby request the following studies per 18 CFR 5.9(b).

1. Study of Project Facilities to Support Multiple-day Self-Powered Boating Trips on the Connecticut River.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

We recommend a study of the quantity, quality, and adequacy of land-based recreational facilities operated by the Wilder Station Licensee that are associated with boating on the Connecticut River. This study should examine put-in and take-out facilities especially for canoes, kayaks, rowing shells and other self-powered watercraft; portage routes at Wilder Station and Sumner Rapids; campsites; parking and road access; seasons of operation of the facilities to match with actual river use; maintenance; water supplies and other amenities at campsites; and trash and sanitary facilities. The study should include a projection of usage during the proposed 30-year life of the license, and opportunities for

the Licensee to buy land from willing sellers in order to increase and safeguard recreational benefits for the project's tenure.

The study should examine the facilities that are necessary specifically for canoe, kayak and rowing shell access to the river. Information from the New Hampshire and Vermont SCORP studies and from other river recreational groups suggests that interest in quiet water paddling is rising along with the sales of sea kayaks, rowing shells and canoes. Most of the existing facilities were designed for day use by motorboats. Motorboat launch ramps are not well suited to canoeists, especially those using wood-and-canvas or fiberglass canoes (e.g., sand works better than concrete.)

Paddlers who have attempted multiple-day trips on the Connecticut River report that portages and camping can be difficult. Campsites are few and far between and the quality varies widely. Islands are often posted as off-limits. Competition for campsites is common, and the study might look at ways to minimize such conflicts. The Connecticut River Paddlers' Trail organization states the ideal frequency of canoe campsites is one in every five river miles, accompanied by canoe and kayak access in every town. The Licensee could use that guidance.

Trails on both land and water should be studied. The Connecticut River Paddlers' Trail and the Connecticut River Birding Trail are within project boundaries. Their interests should be part of a study framework that takes a watershed viewpoint, especially as it involves trail networks and associated facilities.

The ownership of project lands at Wilder Station should be studied for recreational and conservation improvements. Some project lands could be added to existing park facilities, or placed under permanent conservation restrictions, in order to improve conservation and recreation. The public has an interest in trails in the vicinity of project lands. The study should evaluate the adequacy and maintenance of existing trail systems for the next 30 years, and determine opportunities for additional hiking trails on project lands, and for linking those trails to existing trails.

In association with this study, the creation of the Connecticut River and Watershed National Blueway should be taken into account, along with ways that the existing hydropower facilities can contribute to that effort. The study should take into consideration impacts on the entire watershed.

As part of the "adequacy" study, for example, a survey should seek to determine why people do NOT use this great public resource. The cumulative discouragement of recreation on the Connecticut River may displace use to other areas of the watershed. As with upstream migration of fish and downstream migration of canoeists, the survey might identify several discouraging aspects of project operations that could be corrected during relicensing.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;

None of the three requesters is a resource agency. However, several state and federal agencies have an interest in recreation and conservation on the Connecticut River.

The Connecticut River Joint Commissions, created by the legislatures of Vermont and New Hampshire in the late 1980s, is directed to cooperate with each other to preserve and protect the resources of the Connecticut River Valley, and to guide its growth and development. In 2009, CRJC's five local river subcommittees completed a major update of their recreation plan for the river region. The study is aligned with several of the headwaters subgroup's top ten priorities, which aim to:

- Encourage protection of open space for public recreation and scenic views. *Towns* should take advantage of opportunities to conserve riverfront land for public access, trails, birding, or other recreation. Land conservation organizations should help protect scenic views and open space, especially along the river, providing public recreation access for birding, car-top boats or trails.
- Provide more primitive camping opportunities. Parks and recreation agencies should help recreation groups and local volunteers to establish and coordinate a new water trail of dispersed primitive canoe campsites in the region to help prevent trespassing and disperse camping impacts.

The states of Vermont and New Hampshire manage recreational sites in the vicinity of the TransCanada facilities. There is a clear interest in the public's ability to traverse the Connecticut River in boats. The Connecticut River Atlantic Salmon Commission (CRASC), the Vermont Department of Fish & Wildlife (VT-F&W), the U. S. Fish & Wildlife Service (USF&W), and the National Marine Fisheries Service (NMFS) have a clear interest in the passage of anadromous and other migratory fish including shad, blueback herring, eels and other species through fish ladders at the Wilder Dam. Although the federal Atlantic Salmon Restoration Program has been recently curtailed, some of the above agencies continue to study and promote the effective upstream and downstream passage of many endangered or threatened species.

Beyond the fisheries agencies, several federal agencies have an interest in recreation and conservation on the Connecticut River. On May 24, 2012, Secretary of the Interior Ken Salazar designated the Connecticut River and Watershed as the nation's first National Blueway. A Memorandum of Understanding signed in August 2012 by the departments of Interior, Agriculture, and the Army has as one objective "providing opportunities for scientific research, environmental education and outdoor recreation and access within the National Blueway to the extent compatible with agency missions." The National Blueway concept takes a watershed viewpoint and addresses the river from its source to the sea. The National Blueways System has as its goal "to advance a whole river and watershedwide approach to conservation, outdoor recreation, education, and sustainable economic opportunities in the watersheds in which we live, work, and play." The National Blueway designation includes all the tributaries in the watershed and involves several federal and state agencies, including the U.S. Army Corps of Engineers, the Silvio Conte Refuge, U.S. Fish and Wildlife Service, the National Park Service, and the States of Connecticut,

Vermont, New Hampshire, and the Commonwealth of Massachusetts, which have prioritized conservation, recreation, and restoration in the 7.2 million-acre Connecticut River Watershed.

(3) If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

As explained above, the hydropower dams on the Connecticut River create obstacles to public navigation and recreation on the river. Conducting the necessary studies and implementing the measures needed to ensure that the public has access to quality outdoor recreational resources are in the public interest. It is widely accepted that outdoor recreation has significant benefits to participants including health, well being, and quality-of-life. Outdoor recreation also has proven economic benefits for communities located near recreational resources.

Improvement in opportunities for multiple-day canoe, kayak and rowing trips on the Connecticut River has the potential to offer the region significant economic benefits.

Project operations have created serious aesthetic issues along the route of the Connecticut River. The dams have substituted their industrial appearance for the naturally scenic rapids and falls that graced the Connecticut River at Wilder in Olcott Falls. The public has an interest in the scenic values of this major public resource.

(4) Describe existing information concerning the subject of the study proposal, and the need for additional information.

There is an inconsistent body of knowledge regarding multiple-day trips on the Connecticut River. The PAD produced by the Licensee lists many access and camping facilities that are not owned or operated by the Licensee, including commercial operations that may have a temporary lifespan. There is a lack of consistency about those facilities in terms of their seasons of use and their amenities for public recreational use and their long-term protection.

Several publications are widely used by paddlers and recreationalists. The primary source of information is *The Connecticut River Boating Guide: Source to Sea* (3rd ed.) published by the Connecticut River Watershed Council (2007). The Connecticut River Birding Trail organization located in White River Junction, Vt., has published maps detailing the upper valley section, the northern section, and the southern section of the river.

Images of America: Hartford by Frank J. Barrett Jr. has a chapter on "Olcott, Wilder, and the Connecticut River" that contains photos of Olcott Falls before the dam.

The Connecticut River Paddlers' Trail in 2013 published a map of the river. Their website (<u>www.connecticutriverpaddlerstrail.org</u>) has a comprehensive listing of access points and campsites in Vermont and New Hampshire.

The Connecticut River Joint Commissions updated the Recreation Chapter of the Connecticut River Corridor Management Plan recently — there are six volumes, all posted online at: <u>http://www.crjc.org/river-plan/recreation-management-plan/</u> The Upper Valley, Mount Ascutney and Wantastiquet plans will be most relevant as they each contain a section on boating for that section of the river.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

The Wilder Dam prevents navigation downstream on the main stem of the Connecticut River. Project owners have a responsibility to the public to provide adequate portage trails and facilities that promote public recreation on the river, including access points and campgrounds with necessary amenities. This study will be the defining mechanism for identifying additional sites that can best be adapted for increasing public access and multiple-day paddling trips on the Connecticut River. License requirements may include having the Licensee purchase additional property to provide adequate camping, trail sites, portages or other facilities to assist the public.

The study may also identify indirect effects if the hydropower facilities and their projects have discouraged public use of the Connecticut River or displaced recreation to other parts of the watershed.

Cumulative effects need to be examined because it appears that the number of dams on the river discourages multiple-day trips and has fragmented the recreational experience. This study may result in license requirements or other mitigation for the Licensee regarding multiple-day trips on the Connecticut River.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

Studies of the adequacy of public resources are fairly standard in the planning field. Methodologies can be selected from among the recognized and accepted standards of the resource and public planning fields. Surveys of people who do NOT use the river or are displaced elsewhere in the watershed can employ randomized samples from several databases. Sufficient information is available from the guidebooks and maps of the river that identify access points and campsites, as well as information contained in the PAD. The sites evaluated should be operated or funded by the Licensee, not by others. Once a consultant is selected and approved, the information should be gathered and analyzed in a timely manner. The study would probably need a summer field season to locate river users for an adequate sample. A consultant with experience in similar projects should be selected, in part to create relevant comparisons to other hydropower projects around the country. The AMC has some staff expertise in this area because it operates facilities in the White Mountains in New Hampshire, near the Appalachian Trail in Maine, and elsewhere in its chapter locations. We will work with the Licensee to document the known information regarding the river. We will provide volunteers and technical support for the studies when possible as appropriate. We hope to work collaboratively with the Licensee on this study.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

There are several sites along the Connecticut River in the Wilder area, private and public, that are used as access points or have camping facilities. However, there are vast differences in the ability or capacity of these sites to handle paddling groups with varying sizes or sanitation needs. Because there is no comprehensive guide or text that provides updated information, field inspection of existing sites should take place. Any needed reconstruction or rehabilitation of existing facilities should be identified. This analysis can be completed during any spring, summer, or fall field season.

Such field research needs to be matched with projections of use in the future and with standard requirements for access sites, campsites, portages, sanitation facilities and other amenities. We know of no other method to acquire this information for evaluation.



Olcott Falls middle drop, 1882.

2. Controlled Whitewater Flow Study for the Sumner Falls Reach.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

As stated in the American Whitewater and New England FLOW study requests, the goal of a whitewater controlled-flow study is to assess the presence, quality, access needs, flow information needs, and preferred flow ranges for river-based boating resources in a stepwise manner. The information to be obtained can be generally characterized as quantitative and qualitative descriptions of:

- The range of optimal and acceptable flows for whitewater paddling in a river setting;
- The frequency, timing, duration and predictability of optimal and acceptable paddling flows under current conditions, and how proposed alternative operations could be used;
- The access needs of whitewater boating use and the current and potential river access options for kayakers and other paddlers, as well as portage opportunities;
- The flow information needs of whitewater boating and the current and potential flow information distribution system;
- The location, challenge, and other recreational attributes associated with Sumner Falls Rapid and other river features that may be available.

Thus, the information to be obtained for the whitewater controlled-flow study is a combination of user-generated flow preferences and other information on current and proposed operation (e.g. discharges), geographic information and basic recreational information.

In simpler terms, Wilder Station would release prescribed flows of water for this test, perhaps over two days. When each release reaches Sumner Rapids, a selected group of paddlers would run the rapid and then answer written questions about their experiences at that flow level. Wilder Station would release three or four or possibly several different flows, measured in cubic feet per second, and the paddlers' experiences would be analyzed to determine the flows that work best at the rapid.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

None of the three requesters is a resource agency.

The Licensee owns and operates several river access areas on the Connecticut River within project boundaries, and both the states of Vermont and New Hampshire manage additional sites in the vicinity of the Project. There is a clear interest in the public's ability to traverse the Connecticut River in boats and to develop recreational uses. In addition to this interest, the Connecticut River and Watershed has been designated as

America's first National Blueway, a designation that engages several federal and state agencies in the Connecticut River and Watershed.

On May 24, 2012, Secretary of the Interior Ken Salazar designated the Connecticut River and Watershed as the nation's first National Blueway. A Memorandum of Understanding signed in August by the departments of Interior, Agriculture, and the Army has as one objective "providing opportunities for scientific research, environmental education and outdoor recreation and access within the National Blueway to the extent compatible with agency missions." The National Blueway concept takes a watershed viewpoint and addresses the river from its source to the sea. The National Blueways System has as its goal "to advance a whole river and watershed-wide approach to conservation, outdoor recreation, education, and sustainable economic opportunities in the watersheds in which we live, work, and play." The National Blueway designation includes all the tributaries in the watershed and involves several federal and state agencies, including the U.S. Army Corps of Engineers, the Silvio Conte Refuge, U.S. Fish and Wildlife Service, the National Park Service, and the States of Connecticut, Vermont, New Hampshire, and the Commonwealth of Massachusetts, which have prioritized conservation, recreation, and restoration in the 7.2 million-acre Connecticut River Watershed.

(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

The Wilder Dam offers the public an opportunity to enjoy a quality whitewater boating resource at Sumner Falls. Conducting the necessary studies and implementing the measures needed to ensure the public has access to quality outdoor recreational resources are in the public interest. It is widely accepted that outdoor recreation has significant benefits to participants including health, well being, and quality-of-life. Outdoor recreational resources are on also has proven economic benefits for communities located near recreational resources.

Scheduled recreational opportunities in the Connecticut River and its tributaries have the potential to offer the region significant economic benefits. FERC has concluded that "to fully evaluate the project's effect on whitewater recreation opportunities and to balance potential enhancement opportunities with their cost, a controlled-flow whitewater boating study is relevant to Commission's public interest determination." This is equally true regarding the Sumner Falls reach on the Connecticut River.

(4) Describe existing information concerning the subject of the study proposal, and need for additional information.

While many controlled-flow studies as described above have been conducted on New England's rivers (Deerfield in Massachusetts, Kennebec & Rapid in Maine) that have a long and illustrious history of whitewater paddling use, flows on this section of the Connecticut River have been fractured and are undependable. The potential of developing a quality river reach at Sumner Falls as a recreational facility and destination should not be ignored.

Current and historic project operations, however, provide no consistent releases, easily accessible flow information by the public or meaningful information for this reach. The result has been flows too low to paddle, or flashy, spiking high flows that flatten out the rapids. It should be determined what flows are best suited for maximum recreational use.

Doug Whittaker, Bo Shelby, and John Gangemi describe the techniques for controlledflow studies in *Flows and Recreation: A guide to studies for river professionals* (2005), p. 26-29, available from the National Park Service website at: http://www.nps.gov/hydro/flowrec.pdf

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

The Wilder Dam controls the entire flow in the Connecticut River with the exception of releasing the required minimum flow of 675 cfs, when generating, or during floods.

The result is chaotic and unpredictable timing for paddlers wishing to paddle at Sumner Falls, and the elimination of valuable and regionally needed summer paddling opportunities. The Connecticut River can be a high quality paddling resource, and since paddling is a flow dependent activity, the project directly affects paddling on the Connecticut River. The project nexus is direct. The results of a controlled-flow study would help determine the need for license requirements for whitewater releases.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

We request a controlled-flow study of the Sumner Falls reach of the Connecticut River. The study should follow the standard methodology as described in Whittaker et al., cited above. This methodology is designed to gather information to assess the presence, quality, and preferred flow ranges for river-based boating resources in a step-wise manner. The process steps are generally 1) desktop analyses, 2) on-land feasibility assessment, 3) on-water single flow assessment, 4) on-water multiple flow assessment.

The AMC and other NGOs with whitewater experience are willing to work with the Licensee to document the known information regarding the river. We can provide volunteer paddlers and technical support for the studies as appropriate. We hope to work collaboratively with the Licensee on this study. The whitewater boating study methodology we have requested has been used on dozens of other FERC regulated reaches, including other rivers where the studies were done in conjunction with New England Power whose projects are now owned by TransCanada.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

Representatives of the AMC are willing to work with the Licensee on the whitewater paddling controlled-flow study at Sumner Falls to keep costs reasonable and the quality of information high. The organized flow study should be done, during which several flows are paddled by boaters with still image and video documentation, followed by surveys of the boaters, a guided conversation among the boaters, and subsequently a written report.

Given that this is a main stem reach with decent access and relatively known hydrology, and given the collaborative approach sought by the paddling community, including inkind contributions of time and expertise, consultants should be able to complete this study on behalf of the Licensee for a very reasonable cost.

The Licensee PAD proposes no whitewater feasibility analysis. This no-action step will reveal nothing about the project's impacts on whitewater recreation at Sumner Falls or opportunities for protection, mitigation, or enhancement measures. We currently do not know the relationship between specific low and moderate flows and the paddling experiences they provide. A desktop analysis cannot generate this information. Without this information gained from paddling this reach, we cannot fully define the project impacts, nor propose and consider provision of releases that provide targeted recreational experiences.



Sumner Falls Rapids at low flow, October 2012.

3. Study of the Proper Presentation and Preservation of Important Historical Resources.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

Important historical records were created during construction of the Wilder Dam. The engineers who built the dam were highly skilled, judging from the longevity of their structures. They detailed each project with carefully drawn documents and many photographs of the land and the construction. These documents are now historical records and should be preserved.

We have an interest in the historical study of the river as it existed prior to the construction of the dams, including photographs of the natural riverbed. This will reveal what was lost during dam construction, including the drowning of Olcott Falls. TransCanada has easy access to around 24 scrapbook volumes of these records and photos for their Connecticut River facilities. Each volume is numbered, but the numbers suggest there may be a total of 300 or more scrapbooks in existence. A study should determine what historical records remain and make suggestions for their safe storage, such as in a secure location or a library. A Canadian corporation now owns the facility. These records should be preserved before they are lost in transition.



We also have an interest in the educational opportunities for the public that should be provided by the project operators on the Connecticut River. Informational signage and kiosks at project facilities can and should promote education about invasive species, water flows, the history of the area, who to call with problems, and what to do to get involved? Existing data should be archived and be publicly accessible. These educational improvements should be coordinated with recreational improvements. These questions should be addressed in this study concerning the "proper presentation" and preservation of history.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

None of the three requesters is a resource agency, although the AMC does keep a library of historical photographs and records at its headquarters on Joy Street in Boston. The tasks here are properly the concern of state historical preservation agencies.

(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

Historical records are a valuable public resource. For social, cultural and industrial historians, the records from construction of this dam will become valued scholarly assets. They should not be lost because of ownership transitions, neglect, or because their value may not be recognized by a corporate employee.

(4) Describe existing information concerning the subject of the study proposal, and need for additional information.

We are unaware of any publications that have used these company records. The need for additional information here involves the documents in possession of the Licensee related to the original construction of the dams and to the original condition of the river.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

Clearly the Licensee has in its possession scrapbooks, photographs, construction plans, and other historical records related to the construction of the dam, or at least some surviving remnant of such documents. The nexus there is direct. Preservation of such documents should be a license requirement and they should be publicly accessible.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

Historians or librarians could recommend how to handle and preserve the scrapbook records and other historical information about building the dam.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

Most of the work in locating the records owned by the Licensee would be internal, with advice and recommendations coming from professional historians after the scope and location of the documents is known. Study of educational opportunities would benefit from consultations with local outdoor educators and schools.

4. Study of the Economic Health of Ownership and Creation of a Decommissioning or Trust Fund.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

We request a study on the creation of a decommissioning fund or trust fund to protect the public interest. New England's rivers are littered with abandoned dams. Over the centuries, companies have failed, and weather events or human error have crippled dams that were then simply left behind. Energy markets and ownerships have been changing quickly.

A "perfect storm" event, might breach a dam such as Wilder. Most of the Connecticut River dams are elderly facilities; Wilder is one of the youngest but dates from 1950. The projected capacity at Bellows Falls Dam was exceeded in 1936.

Distant events, changing regulations, new energy sources, currency devaluations or unfortunate weather events could compromise the health of the current projecte. If something happened, the public should be insured against the burden of decommissioning costs. A study should recommend the terms of a license requirement for a decommissioning fund.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;

We are unaware of the resource agencies' jurisdiction over decommissioning funds.

(3) If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

The economic security of a federally licensed hydropower dam on the longest river in New England is clearly in the public interest. Many hydropower projects support robust recreation economies and they produce a public good by generating renewable forms of electricity.

But the historical record demonstrates—by the number of abandoned dams on New England's rivers—that the public should not accept the burden of industrial failure any longer. It has become common to create decommissioning funds at such federally licensed facilities as a way of insuring the public interest against having to pay for removal of a damaged facility or to take over from a failed corporation.

(4) Describe existing information concerning the subject of the study proposal, and the need for additional information.

We are unaware of any published information on the economic viability of the Wilder Dam, which may need to be studied under a non-disclosure agreement, or of the performance of decommissioning funds or other trust funds for this purpose.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

There is a direct connection between Project operations and the economic viability of each individual dam. Study results could lead to a license requirement setting up an escrowed decommissioning or trust fund to protect the public interest.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

The financial viability portion of the study would follow normal procedures in accounting and financial management. The rules of trusts or decommissioning funds are well known.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

The requested study would be relatively inexpensive. Funding the trust would be another matter. We are unaware of alternative means of securing the public from risks that the corporations or the physical assets might fail during the course of the federal license.

Conclusion:

We respectively request the recreational, historical, and economic studies that will support dialog and analysis regarding the impact of the Wilder hydropower dam on the Connecticut River and on Sumner Rapid. In addition, in these comments we offer our comments on the PADs, to better inform this relicensing process. Thank you for considering these comments.

Respectfully submitted this 28th day of February, 2013.

Norman Sims Appalachian Mountain Club 16 Linden Ave. Greenfield, MA 01301 sims@honors.umass.edu

Kenneth Kimball, PhD Director of Research Appalachian Mountain Club P.O. Box 298 Gorham, NH 03581 kkimball@outdoors.org

Stephan Syz Vermont River Conservancy 29 Main Street Montpelier, VT 05602 ssyz@vermontriverconservancy.org

Noah Pollock President Friends of the Connecticut River Paddlers' Trail 55 Harrison Ave Burlington VT 05401 noah.pollock@gmail.com

UNITED STATES OF AMERICA FEDERAL ENERGY REGULATORY COMMISSION

TransCanada Hydro Northeast, Inc. Vernon Hydroelectric Project No. 1904-073

APPALACHIAN MOUNTAIN CLUB, VERMONT RIVER CONSERVANCY, AND FRIENDS OF THE CONNECTICUT RIVER PADDLERS' TRAIL'S COMMENTS AND STUDY REQUESTS IN RESPONSE TO THE NOTICE OF INTENT TO FILE LICENSE APPLICATION, FILING OF PRE-APPLICATION DOCUMENT (PAD), COMMENCEMENT OF PRE-FILING PROCESS, AND SCOPING: REQUEST FOR COMMENTS ON THE PAD AND SCOPING DOCUMENT, AND INDENTIFICATION OF ISSUES AND ASSOCIATED STUDY REQUESTS REGARDING THE VERNON HYDROELECTRIC PROJECT, FERC PROJECT NO. 1904-073, OWNED BY TRANSCANADA HYDRO NORTHEAST, INC.

Since 1876, the Appalachian Mountain Club (AMC) has promoted the protection, enjoyment, and understanding of the mountains, forests, waters, and trails of the Appalachian region. The AMC is a steering committee member of the Hydropower Reform Coalition based in Washington, D. C. The AMC is the largest conservation and recreation organization in the Northeast with more than 90,000 members, many of whom live within three hours of the Connecticut River and would enjoy this section as a daylong or longer trip. The AMC's interests in hydropower relicensing are mainly in the areas of conservation and recreation.

The Vermont River Conservancy protects public access, wildlife habitat, clean waters, scenic natural beauty and ecological integrity by conserving undeveloped land along rivers, lakes and wetlands of Vermont. Since 1995, working in cooperation with state and federal agencies, municipalities and other conservation organizations, VRC has completed projects at over 45 popular local swimming holes, gorges and waterfalls, fishing and boating accesses, protecting paddlers' trails and meandering river corridors for all to enjoy.

The Friends of the Connecticut River Paddlers' Trail is dedicated to building and stewarding primitive campsites, access points, and portage trails along the Connecticut River. The organization manages over 30 campsites and 70 access points that reach from the Connecticut River's headwaters south to the Massachusetts border. Efforts are underway to expand the trail into Massachusetts and Connecticut. The group includes representatives from conservation organizations, state and federal agencies, hydroelectric companies, and town conservation commissions that recognize the region's rich ecology and productive working landscape and seek to facilitate recreational use compatible with the Refuge's natural, social, and historic character.

Currently five hydropower projects on the Connecticut River are up for new federal licenses, including Vernon Dam. These five facilities influence about 168 miles of the

longest river in New England, including creating 91 miles of reservoir that have fragmented the river and converted whitewater rapids into impoundments. The impacts stretch from the upper reaches of the 45-mile long Wilder Project reservoir in New Hampshire and Vermont down to about Northampton, or possibly the Holyoke Dam reservoir, in Massachusetts. The watershed surrounding these projects encompasses a significant portion of the 7.2 million acres in the Connecticut River and Watershed National Blueway. The main stem of the river at the Vernon Project is of sufficient size for canoeing, kayaking and rowing for multiple-day trips, and flows through beautiful Appalachian countryside.

Rather than repeating some requests here, the AMC co-signed onto American Whitewater and New England FLOW's study requests for whitewater recreation and contingent valuation economic studies and hereby reference them without repeating them in detail for brevity's sake.

In the following study requests, we address impacts of and study needs for the Vernon Project, including issues of multiple-day canoe trips, historical and cultural resources, and the financial health of the operator and decommissioning funds.

All studies requested here should contain projections for use by the public during the 30year life of the proposed license, and the adequacy of all facilities and mitigation for that time period, as well as how existing impediments discourage public use currently.

Issue #1: Impacts of the Vernon Dam on Multiple-Day Self-Propelled Trips on the Connecticut River.

The Vernon Dam owned by TransCanada blocks the river to downstream navigation.

In the scoping area of recreation, we have an interest in the creation of improved opportunities for multiple-day canoe and kayak trips on the Connecticut River, along with facilities that would also accommodate rowing shells. When compared to other regions of the country, New England generally does not have a lot of opportunities for multiple-day canoe trips with the exception of several rivers in far northern Maine, such as the St. John and Allagash, which are many hours from population centers. The Connecticut River runs from northern New Hampshire to Long Island Sound. It passes through several major population centers and is easily accessible from all the cities in New England as well as the greater New York City area with populations in the millions.

In preliminary application documents, the Licensee cites one of the goals of the New Hampshire SCORP for a variety of recreational opportunities. The Vermont SCORP (2005-2009) reveals the need for access to all types of outdoor recreation. Multiple-day canoe, kayak or rowing trips certainly meet the needs in the SCORP documents, but such trips are severely limited by the operations of the hydropower dams.

The most serious obstacles to multiple-day trips on the Connecticut River are the hydropower dams themselves. Access points and campsites are inadequate. The existing portage routes around the dams are inadequate, too long, and dangerous. The portage trail at Vernon Dam is among the best, yet through-paddlers frequently complain about it.

Facilities such as portages, campsites, and boat launches exist, as detailed in the PAD. But for multiple-day trips, or for paddlers or rowers seeking to navigate the length of the Connecticut River, the dams discourage such travel. Fisheries biologists have suggested that migrating fish tire after the second fish ladder. Canoeists faced with the cumulative obstacles presented by the hydropower dams become similarly discouraged and abandon their efforts to migrate downriver.

In its PAD, the Licensee proposes no enhancements to mitigate the project effects on multiple-day canoe and kayak recreational use.

Issue #2: Rescuing Important Historical, Educational, and Cultural Records.

The Vernon Dam has a significant historical background. Vernon was the first to ship electricity overland to power distant mills. It is the oldest of the Connecticut River dams currently seeking new licenses.

The AMC has an active volunteer and staff educational program, and has an interest in the educational benefits that should be provided to the public by the hydropower operators on the Connecticut River. Informational signage and kiosks at project facilities should promote education about invasive species, water flows, the history of the area, who to call with problems, and what to do to get involved? Such educational improvements should be coordinated with recreational improvements.

This relicensing offers perhaps a last chance to rescue important historical records held by the Licensee related to the design and construction of the hydropower facilities as well as historical, pre-project conditions. A study should determine what historical records remain, make suggestions for their safe storage, how they can be made publicly accessible and suggest improvements at the project to highlight the historical significance of the facilities to the public.

Issue #3: Economic Health and Decommissioning.

Energy markets have changed dramatically in the past decade. The ownership turnover of energy facilities has been dramatic. Climate change may cause more frequent catastrophic and extraordinary events in coming years in the Connecticut River Valley. Tropical Storm/Hurricane Irene in 2011 washed out some portion of almost every state highway in Vermont except the Interstates. With the possibilities of millennial weather events occurring with much greater frequency and the ongoing dramatic changes in the competiveness of current energy generating sources, we believe that a study should assess the need for escrowed decommissioning funds or trust funds for all hydroelectric facilities currently up for new licenses. Many outdated and derelict dam removals today are coming at the expense of public dollars.

We recommend a study to determine the appropriate decommissioning costs at the end of this project's lifetime and how such costs should be funded in escrow in advance. In an age of international ownership, deregulation, changing ownership, and climate change, the financial health of ownership can be brought into jeopardy by distant events or by weather-related catastrophic failure of a dam. The public should not be burdened with decommissioning costs.

Study Requests

We hereby request three studies per 18 CFR 5.9(b).

1. Study of Project Facilities to Support Multiple-day Self-Powered Boating Trips on the Connecticut River.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

We recommend a study at the Vernon Project concerning the quantity, quality, and adequacy of land-based recreational facilities operated by the Licensee and associated with boating on the Connecticut River. This study should examine put-in and take-out facilities especially for canoes, kayaks, rowing shells and other self-powered watercraft; portage routes; campsites; parking and road access; seasons of operation of the facilities to match with actual river use; maintenance; water supplies and other amenities at campsites; and trash and sanitary facilities. The study should include a projection of usage during the proposed 30-year life of the licenses, and the opportunities for the project owners to buy land from willing sellers in order to increase recreational benefits.

The study should examine the facilities that are necessary specifically for canoe, kayak and rowing shell access to the river. Information provided by canoe clubs and other river recreational interests cite changing demographics and an increase in sea kayaking and rowing as reasons for the high interest in quiet water paddling and multiple-day trips. Most of the existing facilities were designed for day use by motorboats. Motorboat launch ramps are not particularly suited to self-propelled boats, especially those made of wood-and-canvas or fiberglass (e.g., sand works better than concrete).

Through-paddlers have complained about the portage at Vernon Dam. "That portage trail at the dam was not very good," said one, but it was excellent compared to portages at other TransCanada dams. The difficulties are two. First, as another through-paddler said, "Getting out of the river just before the dam is a mess. I've done this 5 times and it's always a mess—junk in the cove, trash, etc." Second, the pathway out of the river is steep and the landing is often muddy.

Paddlers who have attempted to follow the Connecticut River to the sea report that portages and camping can be difficult. Campsites can be few and far between. Islands are often posted as off-limits. Canoeing parties end up camping on mudflats and on isolated portions of private lands. A recent study by the Connecticut River Paddlers' Trail documented that the campsites operated by TransCanada would benefit from revitalization, and more regular maintenance, including the Stebbins Island campsite situated just below the Vernon Dam. In particular, sites should be regularly monitored and visited to ensure safe conditions for paddlers and to maintain the ecological integrity of the site, Competition for campsites is not uncommon, and the study might look at ways to minimize such conflicts. The Connecticut River Paddlers' Trail organization says the ideal frequency of canoe campsites is one for every five river miles, accompanied by canoe and kayak access in every town. The section of the river near the Vernon facility does not provide enough campsites to meet this standard.

Trails on both land and water should be studied. The Connecticut River Paddlers' Trail and the Connecticut River Birding Trail cross several project boundaries. Their interests should be part of a study framework that takes a watershed viewpoint, especially as it involves trail networks and associated facilities.

The ownership of project lands at the facility should be studied for recreational and conservation improvements. Some project lands could be added to existing park facilities, or placed under permanent conservation restrictions, in order to improve conservation and recreation. The study should evaluate the adequacy and maintenance of existing trail systems for the next 30 years, and determine opportunities for additional hiking trails on project lands, and for linking those trails to existing trails. Such trails in the watershed could cross project boundaries, and adding to them could involve requiring the Licensees to purchase additional land.

In association with this study, the creation of the Connecticut River and Watershed National Blueway should be taken into account, along with ways that the existing hydropower facilities can contribute to that effort. The study should take into consideration impacts on the entire watershed.

As part of this study, for example, a survey should seek to determine why people do NOT use this great public resource. The cumulative discouragement of recreation on the Connecticut River may displace use to other areas of the watershed. As with upstream migration of fish and downstream migration of canoeists, the survey might identify several discouraging aspects of project operations that could be corrected during relicensing.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;

None of the three requesters is a resource agency. However, several state and federal agencies have an interest in recreation and conservation on the Connecticut River.

The states of Vermont and New Hampshire manage recreational sites in the vicinity of the TransCanada facility. There is a clear interest in the public's ability to traverse the Connecticut River in boats. The Connecticut River Atlantic Salmon Commission (CRASC), the Vermont Department of Fish & Wildlife (VT-F&W), the U. S. Fish & Wildlife Service (USF&W), and the National Marine Fisheries Service (NMFS) have a clear interest in the passage of anadromous and other migratory fish including shad, blueback herring, eels and other species through fish ladders at the Vernon Dam. Although the federal Atlantic Salmon Restoration Program has been recently curtailed, some of the above agencies continue to study and promote the effective upstream and downstream passage of many endangered or threatened species.

Beyond the fisheries agencies, several federal agencies have an interest in recreation and conservation on the Connecticut River. On May 24, 2012, Secretary of the Interior Ken Salazar designated the Connecticut River and Watershed as the nation's first National Blueway. A Memorandum of Understanding signed in August 2012 by the departments of Interior, Agriculture, and the Army has as one objective "providing opportunities for scientific research, environmental education and outdoor recreation and access within the National Blueway to the extent compatible with agency missions." The National Blueway concept takes a watershed viewpoint and addresses the river from its source to the sea. The National Blueways System has as its goal "to advance a whole river and watershedwide approach to conservation, outdoor recreation, education, and sustainable economic opportunities in the watersheds in which we live, work, and play." The National Blueway designation includes all the tributaries in the watershed and involves several federal and state agencies, including the U.S. Army Corps of Engineers, the Silvio Conte Refuge, U.S. Fish and Wildlife Service, the National Park Service, and the States of Connecticut, Vermont, New Hampshire, and the Commonwealth of Massachusetts, which have prioritized conservation, recreation, and restoration in the 7.2 million-acre Connecticut River Watershed.

(3) If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

The Vernon Dam creates an obstacle to public navigation and recreation on the river. Conducting the necessary studies and implementing the measures needed to ensure the public has access to quality outdoor recreational resources are in the public interest. It is widely accepted that outdoor recreation has significant benefits to participants including health, well being, and quality-of-life. Outdoor recreation also has proven economic benefits for communities located near recreational resources.

Improvement in opportunities for multiple-day canoe, kayak and rowing trips on the Connecticut River has the potential to offer the region significant economic benefits.

(4) Describe existing information concerning the subject of the study proposal, and the need for additional information.

There is an inconsistent body of knowledge regarding multiple-day trips on the Connecticut River. The PAD produced by the Licensee lists many facilities that are not owned or operated by the Licensee, including commercial operations that may have a temporary lifespan. There is a lack of consistency about those facilities in terms of their seasons of use and what amenities exist for public recreational use and their long-term protection.

Several publications are widely used by paddlers and recreationalists. The primary source of information is *The Connecticut River Boating Guide: Source to Sea* (3rd ed.) published by the Connecticut River Watershed Council (2007). Recreational maps and guides to the river have been published for some reaches by KM Digital Productions in South Hadley, Mass., and are available from the Connecticut River Watershed Council. These foldout river maps cover the reaches from Bellows Falls to Vernon, Vt. (2011), and from Vernon, Vt., to Turners Falls, Mass. (2008). The Connecticut River Birding Trail organization located in White River Junction, Vt., has published maps detailing the upper valley section, the northern section, and the southern section of the river.

The Connecticut River Paddlers' Trail organization has done a study that assesses the quality of campsites for the power company titled *TransCanada Hydro Northeast Connecticut River Paddlers' Trail Campsites*. The undated report examined campsites at Vernon and Bellows Falls and concluded that most were in "fair to good shape." Incidentally, the report also exposes the inconsistency and lack of maintenance at the project campsites. In 2013, the organization also published a Connecticut River Paddlers' Trail map of the river.

The Connecticut River Joint Commissions updated the Recreation Chapter of the Connecticut River Corridor Management Plan recently — there are six volumes, all posted online at: <u>http://www.crjc.org/river-plan/recreation-management-plan/</u> The Upper Valley, Mount Ascutney and Wantastiquet plans will be most relevant as they each contain a section on boating for that section of the river.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

Project owners have a responsibility to the public to provide adequate portage trails and facilities that promote public recreation on the river, including access points and campgrounds with necessary amenities. This study will be the defining mechanism for identifying additional sites that can best be adapted for increasing public access and multiple-day paddling trips on the Connecticut River. License requirements may include having the Licensee purchase additional property to provide camping, trail sites, portages or other facilities to assist the public.

The study may also identify indirect effects if the hydropower facilities and their projects have discouraged public use of the Connecticut River or displaced recreation to other parts of the watershed.

Cumulative effects need to be studied because it appears that the number of dams on the river discourage multiple-day trips and have fragmented the recreational experience. This study may result in license requirements or other mitigation for the Licensee regarding multiple-day trips on the Connecticut River.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

Studies of the adequacy of public resources are fairly standard in the planning field. Methodologies can be selected from among the recognized and accepted standards of the resource and public planning fields. Surveys of people who do NOT use the river or are displaced can employ randomized samples from several databases. Sufficient information is available from the guidebooks and maps of the river that identify access points and campsites, from the map done by the Paddlers' Trail, as well as information contained in the PAD, although such information needs to be updated with on-site visits. The sites evaluated should be operated or funded by the Licensee, not by others. Once a consultant is selected and approved, the information should be gathered and analyzed in a timely manner. The study would probably need a summer field season to locate river users for an adequate sample and visit the facilities. A consultant with experience in similar projects should be selected, in part to create relevant comparisons to other hydropower projects around the country.

The AMC has some staff expertise in this area because it operates facilities in the White Mountains, in Maine, and elsewhere in its chapters. We will work with the Licensee to document the known information regarding the river. We will provide volunteers and technical support for the studies when possible as appropriate. We hope to work collaboratively with the Licensee on this study.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

There are several sites along the Connecticut River, private and public, that are used as access points or have camping facilities. However, vast differences exist in the ability or capacity of these sites to handle paddling groups with varying sizes or sanitation needs. Because there is no comprehensive guide or text that provides updated information, field inspection of existing sites should take place. Any needed reconstruction or rehabilitation of existing facilities should be identified. This analysis can be completed during any spring, summer, or fall field season. Such field research needs to be matched with projections of use in the future and with standard requirements for access sites,

campsites, portages, sanitation facilities and other amenities. We know of no other method to acquire this information for evaluation.

2. Study of the Proper Presentation and Preservation of Important Historical Resources.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

Important historical records were kept from the construction of the Vernon dam, which went into service in 1909. The engineers who built this dam were highly skilled. They detailed the project with carefully drawn documents and many photographs of the land and the construction. These documents are now historical records and should be preserved.

We have an interest in the historical study of the river as it existed prior to the construction of the dams, including photographs of the natural riverbed. This will reveal what was lost during dam construction.

TransCanada has easy access to around 24 scrapbook volumes of these records and photos. Each volume is numbered, but the numbers suggest there may be a total of 300 or more scrapbooks in existence, some of which pertain to Vernon. A study should determine what historical records remain and make suggestions for their safe storage, such as in a secure location or a library. The Licensee has gone through multiple ownership changes in recent years and is now owned by a Canadian corporation. These records should be preserved before they are lost in transition.

We also have an interest in the educational opportunities for the public that should be provided by the project operators on the Connecticut River. Informational signage and kiosks at project facilities can and should promote education about invasive species, water flows, the history of the area, who to call with problems, and what to do to get involved? Existing data should be archived and be publicly accessible. These educational improvements should be coordinated with recreational improvements. These questions should be addressed in this study concerning the "proper presentation" and preservation of history.



Vernon Dam construction 1907.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied.

None of the three requesters is a resource agency. The AMC does keep a library of historical photographs and records at its headquarters on Joy Street in Boston. The tasks here are properly the concern of state historical preservation agencies.

(3) If the requester is not a resource agency, explain any relevant public interest considerations in regard to the proposed study.

Historical records are a valuable public resource. For social, cultural and industrial historians, the records from construction of the Vernon Dam will become a valued scholarly asset. Vernon shipped electricity to the mills of Massachusetts and thus played a role in the labor history of the United States. The records should not be lost because of ownership transitions, neglect, or because their value may not be recognized by a corporate employee.

(4) Describe existing information concerning the subject of the study proposal, and need for additional information.

The need for additional information here involves the documents in possession of TransCanada related to the original construction of the Vernon Dam and to the original condition of the river.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

Clearly the licensee has in its possession scrapbooks, photographs, construction plans, and other historical records related to the construction of the dam, or at least some surviving remnant of such documents. The nexus there is direct. Preservation of such documents should be a license requirement and they should be publicly accessible.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

Historians and librarians could recommend how to best handle and preserve the scrapbook records and other historical information about building the dam.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

Most of the work in locating the records owned by TransCanada would be internal, with advice and recommendations coming from professional historians after the scope and location of the documents is known.

3. Study of the Economic Health of Ownership and Creation of a Decommissioning or Trust Fund.

(1) Describe the goals and objectives of each study proposal and the information to be obtained.

We request a study on the creation of a decommissioning fund or trust fund to protect the public interest. New England's rivers are littered with abandoned dams. Over the centuries, companies have failed, and weather events or human error have crippled dams that were then simply left behind. Energy markets and ownerships have been changing quickly.

A "perfect storm" event might breach a dam such as Vernon. Most of the Connecticut River dams are elderly facilities. Vernon is the oldest, dating from 1907-09.

Distant events, changing regulations, new energy sources, currency devaluations or unfortunate weather events could compromise the health of the current project. If something happened, the public should be insured against the burden of decommissioning costs. A study should recommend the terms of a license requirement for a decommissioning fund.

(2) If applicable, explain the relevant resource management goals of the agencies or Indian tribes with jurisdiction over the resource to be studied;

We are unaware of the resource agencies' jurisdiction over decommissioning funds.

(3) If the requester is a not resource agency, explain any relevant public interest considerations in regard to the proposed study.

The economic security of a federally licensed hydropower dam on the longest river in New England is clearly in the public interest. Many hydropower projects support robust recreation economies and they produce a public good by generating renewable forms of electricity.

But the historical record demonstrates—by the thousands of abandoned dams on New England's rivers—that the public should not accept the burden of industrial failure any longer. It has become common to create decommissioning funds at such federally licensed facilities as a way of insuring the public interest against having to pay for removal of a damaged facility or to take over from a failed corporation.

(4) Describe existing information concerning the subject of the study proposal, and the need for additional information.

We are unaware of any published information on the economic viability of the individual dams, which may need to be studied under a non-disclosure agreement, or of the performance of decommissioning funds or other trust funds for this purpose.

(5) Explain any nexus between Project operations and effects (direct, indirect, and/or cumulative) on the resource to be studied, and how the study results would inform the development of license requirements.

There is a direct connection between Project operations and the economic viability of each individual dam. Study results could lead to a license requirement setting up an escrowed decommissioning or trust fund to protect the public interest.

(6) Explain how any proposed study methodology (including any preferred data collection and analysis techniques, or objectively quantified information, and a schedule including appropriate field season(s) and the duration) is consistent with generally accepted practice in the scientific community or, as appropriate, considers relevant tribal values and knowledge.

The financial viability portion of the study would follow normal procedures in accounting and financial management. The rules of trusts or decommissioning funds are well known.

(7) Describe considerations of level of effort and cost, as applicable, and why any proposed alternative studies would not be sufficient to meet the stated information needs.

The requested study would be relatively inexpensive. Funding the trust would be another matter. We are unaware of alternative means of securing the public from risks that the corporations or the physical assets might fail during the course of the federal license.

Conclusion:

We respectively request the multiple-day recreational, historical, and decommissioning studies for the Vernon Dam on the Connecticut River.

In addition, in these comments we offer our comments on the PADs, to better inform this relicensing process. Thank you for considering these comments.

Respectfully submitted this 28th day of February, 2013.

Norman Sims Appalachian Mountain Club 16 Linden Ave. Greenfield, MA 01301 sims@honors.umass.edu

Kenneth Kimball, PhD Director of Research Appalachian Mountain Club P.O. Box 298 Gorham, NH 03581 kkimball@outdoors.org

Stephan Syz Vermont River Conservancy 29 Main Street Montpelier, VT 05602 ssyz@vermontriverconservancy.org Noah Pollock President Friends of the Connecticut River Paddlers' Trail 55 Harrison Ave Burlington VT 05401 noah.pollock@gmail.com



Vernon Construction bypass site, 1907, at 55,000 cfs.



February 28, 2013 e-filing

The Honorable Kimberly D. Bose, Secretary Federal Energy Regulatory Commission Room 1A East 888 First Street, N.E. Washington, D.C. 20426

Re: Electronic Filing: Appalachian Mountain Club, Vermont River Conservancy, and Friends of the Connecticut River Paddlers' Trail's Comments and Study Request for TransCanada Hydro Northeast, Inc.'s Bellows Falls Project (FERC Project No. 1855-045), Wilder Hydroelectric Project (FERC Project No. 1892-026) and Vernon Hydroelectric Project (FERC Project No. 1904-073).

Dear Secretary Bose:

Enclosed are the Appalachian Mountain Club (AMC), Vermont River Conservancy, and Friends of the Connecticut River Paddlers' Trail's comments and study requests for the above referenced proceedings, submitted by electronic filing and distributed electronically or by U.S. Mail to persons identified on the Commission's Service List for this proceeding. Please add those identified below as our respective organization's representatives to the Commission's official service list for this project. Thank you.

Sincerely, Norman Sims (e-signature)

Norman Sims Appalachian Mountain Club 16 Linden Ave. Greenfield, MA 01301 (413)-774-2970 sims@honors.umass.edu Kenneth D. Kimball, e-signature

Kenneth D. Kimball, PhD Director of Research Appalachian Mountain Club PO Box 298 Gorham, NH 03581 (603)-466-8149 kkimball@outdoors.org

Noah Pollock, e-signature

Noah Pollock President Friends of the Connecticut River Paddlers' Trail 55 Harrison Ave. Burlington, VT 05401 noah.pollock@gmail.com (802)-540-0319

Stephan Syz, e-signature

Stephan Syz Vermont River Conservancy 29 Main Street Montpelier, VT 05602 ssyz@vermontriverconservancy.org (802)-229-0820

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AMC Wilder.PDF
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