TWO RIVERS-OTTAUQUECHEE
REGIONAL COMMISSION
William B. Emmons, III, Chairman
Peter G. Gregory, AICP, Executive Director

March 1, 2013

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

RE: Comments on Scoping Document 1 and requests for studies pertaining to relicensing application for **Wilder Project No. 1892-026**.

Dear Ms. Bose,

The Two Rivers-Ottauquechee Regional Commission appreciates the opportunity to provide comments and submit study requests regarding TransCanada's application to relicense the Wilder dam, Project No. 1892-026.

Our organization is an association of thirty municipalities in east-central Vermont. We provide technical services and assistance to local, state and federal levels of government, as well as to various organizations and businesses throughout the region. The two primary goals of our organization are to advocate for the needs of our member towns, and to articulate a vision for building a thriving regional economy while enhancing the region's quality of life.

We would like to mention that, despite our criticisms of the Wilder dam, we recognize that it is a source of renewable energy and provides opportunities for recreation. Our intent is to truly understand the implications, good or bad, of current operations and future alternatives.

We provide the following comments at this time for the TransCanada relicensing application process:

1. *It is unclear after reading the Scoping Document 1 (SD1) what TransCanada's proposed action for the Wilder project is, or if a proposed action has even been decided*.

The Scoping Document 1 does not make clear the action TransCanada anticipates will become their proposed action in the relicensing process. Section 3.2 of SD1 provides details on the Wilder facilities and operating regime, while section 3.4.2.1 outlines the current license requirements and voluntary measures. Scoping Document 1, section 3.2, Dec 2012, p. 9; section 3.4.2.1, p. 14-16. According to section 3.4.1, "[a]t this time, TransCanada is not proposing any changes to the licensing project facilities or operation at the Wilder… project." Scoping Document 1, section 3.4.1, Dec. 2012, p. 14. Does this mean that section 3.2, the current operation of the Wilder dam, will become TransCanada's proposed action? Will the current license requirements listed in 3.4.2.1 still remain part of the license requirements? Will the voluntary measures remain voluntary or will they become part of the license requirements (and proposed action) as well? The answers to these questions are unclear and not easily discerned from SD1. If we need to be asking these questions, it may seem as though TransCanada has not proposed any action yet, or their intentions are hidden from SD1's intended audience.

If TransCanada has not yet decided on a proposed action, then this scoping process seems premature, as the purpose of the process is to gather initial comments about TransCanada's intended actions. Along the same lines, if TransCanada determines that a different action will be pursued under the assertion that upgrades to the facilities or operations "will continue to be evaluate[d]," the scoping process should begin again to allow the public to comment on that action, and request studies or information with these different set of circumstances in mind. Scoping Document 1, section 3.4.1, Dec. 2012, p. 14. Otherwise, TransCanada could gather comments and build a record based upon one action, and with the knowledge that issues or concerns not raised in the public comment process are not required to be considered thereafter, could change their mind and pursue a different option without being required to address the public's concerns.

2. *The scoping document disregards pre-dam conditions for purposes of evaluating and determining baseline environmental conditions for selected alternatives.*

In section 3.1, SD1 uses the "no-action alternative," or no change from the current operating conditions, as the environmental baseline of comparison for any other alternatives that are developed. Using a presently disturbed and degraded environment as a means for comparison of future environmental degradation perpetuates environmental degradation and destruction. It is somewhat surprising that SD1 treats the Connecticut River as if it is a body of water that has never been free-flowing.

A close reading of *American Rivers v. FERC II*, while not binding on any decision or action on the East Coast, demonstrates that FERC is not required to examine pre-dam conditions when selecting an environmental baseline, but that this type of examination is not precluded either. *American Rivers v. Fed. Energy Reg. Comm'n*, 201 F.3d 1186, 1186-1211, (9th Cir. 2000). In fact, FERC admitted, and the court agreed, that "… the adoption of an existing project baseline does not preclude consideration and inclusion of conditions in a license that enhance fish and wildlife resources and reduce negative impacts attributable to a project since its construction." *Id*. at 1198. With that in mind, why is the current environmental impact of the operation of the dam being used as the environmental baseline? When it comes to the Wilder dam, a number of environmental concerns and issues will not be looked at if this method of comparison is implemented.

Any environmental resource issue, including the ones raised by FERC in section 4.2 of the SD1, would be better understood in the context of the environmental damage caused by the dam's current operation if the baseline was set before the dam was ever constructed. The current operation of the Wilder dam is impacting the environment and aquatic ecosystems, from river bank erosion, to disruption of the natural mitigation patterns of native fishes (even with fish ladders), as well as, affecting the natural migration of sediment down the River, and the natural temperature regimes that existed in the River before the dam construction. FERC has recognized that it is important during the relicensing process to take steps to mitigate these types of environmental effects as a result of dam construction and maintenance. *Id*. The true extent of impacts will only be illuminated if FERC analyzes each alternative proposed in this application process against the conditions that existed in the Connecticut River before any dams were constructed.

3. *The assertion in section 3.6.3 of SD1 that "No party has suggested project decommissioning…" is anticipatory and preemptive, considering the fact that the assertion was made before SD1 was released for comment.*

In section 3.6.3 of SD1, FERC asserts that decommissioning will not be studied because "No party has suggested project decommissioning…" Scoping Document 1, section 3.6.3, Dec. 2012, p. 22.

However, when SD1 had been written, no party had suggested decommissioning as an alternative because the scoping document had not yet been circulated for comment. It seems as though FERC anticipated that no party would suggest decommissioning as an option before most parties were alerted that the relicensing application process would begin. Under the Federal Power Act, FERC must also consider non-power values, such as environmental quality, wildlife and recreation considerations when deciding whether to relicense a project. Federal Power Act, 16 U.S.C. § 797(e). The alternatives advanced by FERC are focused on power generation only. While only in the beginning stages of the relicensing application process, FERC's preemptive statement seems counter to their statutorily mandated duty to consider purposes other than power generation, including the possibility of decommissioning.

4. *We would like FERC to consider decommissioning as an alternative action to relicensing the Wilder dam.*

The Two Rivers-Ottauquechee Regional Commission proposes that FERC consider decommissioning the Wilder dam as an alternative action, either by ceasing operation of the dam or by removing the dam. FERC did not provide a sufficient or well-reasoned explanation for its decision to eliminate the "decommissioning" alternative from further detailed study. We would like FERC to explain on what grounds it was determined that decommissioning was inappropriate or not recommended for the Wilder dam. Furthermore, use of decommissioning and removal, which are possible outcomes, is a very good means to illuminate the impacts of continued operations in the alternatives analysis. Lastly, it is not clear if any funds are held in trust for decommissioning, and the amount of funds that would be needed for such a project. We recognize that decommissioning is unlikely to be the end result, but believe that at a minimum, such an understanding of decommissioning may be useful.

5. *The list of resource issues identified by FERC staff in section 4.2 of SD1 does not match the studies proposed by TransCanada in Table 1, and we are unclear if TransCanada will be required to address those issues*.

The Federal Energy Regulatory Commission staff identified and categorized a number of resource issues in section 4.2 of SD1. However, of all the resources issues that have been identified, TransCanada has only proposed one water resources study and one cultural resources study. Scoping Document 1, Table 1, Dec. 2012, p. 30. We are unsure if TransCanada will be required to study the resource issues identified by FERC, or if they will be left to their own volition to decide which resource issues to study further. **We strongly agree with FERC that the issues identified need to be studied. We request that TransCanada be required to study at least each issue identified in section 4.2 before FERC considers relicensing their hydroelectric projects.**

6. The effect of the projects' operation and maintenance on river bank erosion and soil resources should be added to the list of resources cumulatively affected.

We recognize that soil resources and river bank erosion were slated to be analyzed for cumulative impacts in section 4.2.1, since they are marked with an asterisk. However, soil resources were not listed in section 4.1.1, which is an overview of the resources thought to be cumulatively impacted by the dams.

Constant water level fluctuation is a major contributor to river bank erosion. *Connecticut River Streambank Erosion Study*, Prepared for U.S. Army Corps of Engineers, Contract No. DACW 33-78-C-0297, Nov. 1979 p. 158. According to SD1, there are five hydroelectric projects located on the main

stem of the Connecticut River, between river miles 262 and 122. Scoping Document 1, section 4.1.2, Dec. 2012, p. 23. It is conceivable that, when viewed holistically, the effects of the operation and maintenance of each of the five projects addressed by FERC in this scoping document would cumulatively affect the Connecticut River's banks. It is surprising that FERC did not automatically consider soil resources a resource that could be cumulatively affected by dam operation.

As such, we would like to recommend that soil resources be analyzed for cumulative effects. We believe that a geographic beginning in Newbury, the northern-most town in our region that abuts the Connecticut River, and extending south to the Turner's Dam in Massachusetts is appropriate. This scope would incorporate a sufficient number of river miles upstream of the Wilder dam, and include the other four projects located on the main stem of the Upper Connecticut River.

7. *There is a discrepancy in the hydraulic capacity calculations of the turbines at the Wilder facility*.

According to section 3.2.1.1, outlining the facilities at the Wilder dam, there are three turbines present. Scoping Document 1, section 3.2.1.1, Dec. 2012, p. 9. When the hydraulic capacities of all three turbines are added together, the hydraulic capacity of the Wilder facility is approximately *12,700 cfs*. However, section 3.2.1.2, focused on the operations of the Wilder dam, states that the facilities' "approximate full hydraulic capacity [is] *10,700 cfs*." Scoping Document 1, section 3.2.1.2, Dec. 2012, p. 9. There is a discrepancy of 2,000 cfs between these two sources of information. This discrepancy should be reconciled and clarified in subsequent documents.

8. *There is a discrepancy in the draw-down elevations between the description of draw-down in the Wilder facilities section and current license requirements.*

Section 3.2.1.1 states that the full pond elevation of the Wilder dam is 384.5 feet mean sea level (msl). Scoping Document 1, section 3.2.1.1, Dec. 2012, p. 9. According to the current license requirements in 3.4.2.1, TransCanada must limit their draw-down to five feet, or to "elevation 380 feet." Scoping Document 1, section 3.4.2.1, Dec. 2012, p. 15. If the full pond is elevation 384.5 feet, then a five foot draw-down would be to elevation 379.5 feet, not elevation 380 feet. This discrepancy should be reconciled and clarified.

9. *In the current license, FERC seems to recommend that an additional turbine be installed when market conditions warrant.*

The current operating license for the Wilder dam states that an additional turbine may be installed, and such an addition would be "feasible." Project No. 1892 Operating License, Fed. Energy Reg. Comm'n, Issued Dec. 10, 1979, p. 6-7. To our knowledge, TransCanada has not pursued the addition of another turbine, and nothing in SD1 alludes to it. We must assert that the installation of an additional turbine, while in the current operating license, is a significant upgrade to the Wilder facility. It should not be considered in the "no-action" (current operations) environmental baseline that FERC seeks to use. If the addition of a turbine is pursued, it should be treated as a major upgrade and trigger a full environmental impact statement. We take no position on such an installation, but it seems on its face that since the dam is in place and proposed to continue, that it should be known if it can produce more power and the impacts of such production.

10. *In future relicensing documents, FERC should address emergency management considerations and information gathered from dam break inundation modeling.*

Although not discussed in SD1, future relicensing documents should include a discussion of emergency management procedures for the Wilder dam. The dam break inundation modeling completed primarily for the Moore dam at Fifteen Mile Falls and dams downstream should be addressed and discussed as it relates to the Wilder dam. FERC should consider who received this information, and whether the information has been distributed to a sufficient number of emergency management personnel so that an emergency can be dealt with as best as possible. FERC may also consider whether trainings are necessary in order to prepare crews for the circumstances that may occur during a dam break emergency.

11. *The Pre-Application Document undervalues or ignores the effect of pool fluctuations on river bank erosion, and misrepresents the 1979 U.S. Army Corps of Engineers River Erosion Study*.

According to the 1979 U.S. Army Corps of Engineers River Erosion Study, pool fluctuations are the second most erosive variable when analyzing river bank erosion, the most erosive variable being shear stress. *Connecticut River Streambank Erosion Study*, Prepared for U.S. Army Corps of Engineers, Contract No. DACW 33-78-C-0297, Nov. 1979, Table 2, p. 81. The other variables studied in the 1979 study were: flood variation, stage variation, wind waves, boat waves, freeze-thaw, ice, seepage forces, and gravitational forces. *Id*. p. 81-92. However, the Pre-Application Document (PAD) states that the "Project's Operations [of "modest daily pond fluctuations"] would not likely be a significant contributor to erosion in the reservoir compared to naturally occurring [processes]." TransCanada Hydro Northeast Inc., Wilder Hydroelectric Project, FERC Project No. 1892, Pre-Application Document, Oct. 2012, p. 3-14. The PAD goes on to say that the daily cycle, "run-of-the-river" mode, leads to a "modest" 2.5 feet change in elevation (382.0 feet (msl) and 384.5 feet (msl)), and that TransCanada is actually operating the dam in a way that produces less pool fluctuation than is authorized under the current license (380.0 feet (msl) and 385.0 feet (msl)). *Id*.

TransCanada seems to conveniently ignore the findings of the 1979 study by couching the reduced pool fluctuations at the Wilder dam as "not likely" being a significant contributor to river bank erosion (even though the pool fluctuates approximately 2.5 feet each day). The current pool fluctuations may not be "significant," but that does not mean that they are in any way an *insignificant* force on river bank erosion. As previously mentioned, the 1979 study determined pool fluctuation to be a significant variable on bank erosion, yet TransCanada disregards that finding when it does not support their desired operations. In fact, when listing the causes of erosion in the PAD ("recession of high water levels following spring melts and storm events, freeze-thaw and wet-dry cycles, ice and debris, surface run-off of rainwater, removal or loss of vegetation, obstacles in the river, and waves and boat wakes."), man-made pool fluctuations, like dam operations, are markedly absent. TransCanada Hydro Northeast Inc., Wilder Hydroelectric Project, FERC Project No. 1892, Pre-Application Document, Oct. 2012, p. 3-13—3-14.

In addition, the PAD claims the 1979 study concluded that the river banks would erode "with or without the Project," and normal operation of the dam is not a "significant contributor to erosion in the reservoir." TransCanada Hydro Northeast Inc., Wilder Hydroelectric Project, FERC Project No. 1892, Pre-Application Document, Oct. 2012, p. 4-2. There is no question river bank erosion would occur without the dam. However, TransCanada considers the ability of the dam's operation to erode the river banks to be insignificant, while the 1979 study determines this exact type of variable to be a powerful erosive force. If the 1979 study is used to support some of TransCanada's positions, then the study should not be ignored when it does not support other positions, but rather used as a stimulus to develop solutions to mitigate river bank erosion.

The following are the study request subject areas.

- Comprehensive recreation and river access study.
- Economic activity generated by recreation associated with the river, adjacent lands and parks in the project area.
- Erosion of river bank soils.
- Impacts of decommissioning.

Requests for Study

1. Comprehensive Recreation and River Access Study

1. This study should be categorized under "Recreation" in the resource issues section. The goals of this study are: to determine the need for (and extent of) recreation on the Connecticut River in the project area, to determine and evaluate opportunities for public river access, to determine the public's vision of recreational opportunities, and to assess areas that would be suitable for additional camp sites, canoe/kayak portages, public access areas, fishing and bird-watching areas, and ADA-accessible areas. Finally, the study should evaluate options for enhancing pre-existing access sites.

2. The Federal Power Act requires that non-power values are given consideration during the licensing process. Federal Power Act 16 U.S.C § 797(e). Here, recreation is a public use of the Connecticut River.

3. A number of relevant public interest considerations inform this study. For example, the demographics of area have changed over time, and there is a greater desire for and high value placed on water-dependent recreational opportunities among local residents and tourists. As such, public recreation areas and river access areas are an asset to towns located along the Connecticut River, and could provide potential economic benefits to adjacent towns and communities.

4. According to SD1, TransCanada's current license requires them to operate and maintain 8 recreational facilities: 1 car-top boat launch, 2 boat ramps, 2 angler access areas, 1 dock, 1 portage trail, 1 water trail campsite, 2 picnic areas, 1 natural area, a network of hiking trails, an athletic field. However, there is a need for additional information because it is important to understand the recreational opportunities that currently exist, and compare these against the public's opinion and/or view of desired and feasible recreational opportunities.

5. Dams create impediments to some water-dependent recreation by necessitating portages and limiting free-flowing water. They also increase flat-water recreation opportunities and can create park and access areas. The damming of the Connecticut River provides an impediment for those wanting to canoe or kayak long distances north or south on the River. The Connecticut River is a public trust resource and the public's ability to use and enjoy the River in some ways is

diminished by the current and any future operation of TransCanada's dams. As such, TransCanada should better accommodate the public's desire to use the River as a recreational destination. Results that may show a lack of recreational opportunities and/or the public's desire for additional opportunities along the River, including, but not limited to, portages around dams and/or other impoundments, river access points for fishing, boating and/or canoeing/kayaking, connection(s) to nearby hiking trails, and campsites could be used to require investment in creating recreational opportunities. In addition, results demonstrating that existing opportunities need to be enhanced or upgraded, either by data collected from the user survey or facilities inventory, could be written into TransCanada's future dam operation license to require investment in enhancing facilities.

6. We believe that a recreational use/user contact survey could be conducted to establish the amount of recreation use and user opinion of current and potential recreational opportunities on the stretch of the Connecticut River from Hartland north to Newbury. A recreational facilities inventory and assessment should also be conducted to evaluate all recreational facilities. In order to understand future recreational areas, a suitability survey of sites should be conducted. The survey may assess the suitability of sites for future development as an additional access point/camp site/ portage/ADA-accessible area or connection to other recreational opportunity.

7. We anticipate that this study will cost $80,000. The proposed alternatives would not be sufficient because there are currently no proposed studies that focus on recreational and river access opportunities. This study could be combined with the study below as well.

2. Study on the Economic Activity Generated by Recreational Activity in the Project Area

1. This study should be categorized under "Socioeconomic Resources" in the resource issues section. The goals of the study should be: to understand the current and potential economic activity generated by recreationalists in the project area, including in the parks created as a result of dam construction and continued operation and at lands managed by TransCanada, to analyze the direct and indirect economic benefits to local towns and communities as a result of activities occurring at these parks, TransCanada lands or recreational facilities, and to develop strategies that towns can use to promote park use while also educating the public about dam operation.

2. One of the goals of the managing the Connecticut River is to provide numerous opportunities for leisure and recreation, while providing benefits to the surrounding communities.

3. The parks adjacent to dams provide space for festivals, performances and other activities. These parks also provide residents and visitors with opportunities for outdoor activities and recreation. Other various activities such as sculling competitions, riverfront camping, paddle sports, motor boating, fishing and bird watching all have economic impacts.

4. To our knowledge, there is no existing information related to this topic. Therefore, there is a need to understand the economic benefit of that these recreational assets provide, as this information would provide important insight into the overall impacts of the dam's continued operations, as well as associated lands owned or managed by TransCanada.

5. The creation of the parks and recreational facilities has encouraged public activities at these sites, and has likely created economic benefits for surrounding communities. Thus, the economic activity generated by these lands and facilities is an incidental result of dam construction and operation. Better facilities or access points for portages, hiking trails, fishing, and ADA-accessible areas, among others would also produce economic activity. Once the information from this study has been released, TransCanada may be required to provide connections from parks, recreational facilities to town centers to encourage travel between the various destinations.

6. We are not proposing any specific study methodology.

7. We believe this study would cost $75,000. The proposed alternative studies would not be sufficient because there are currently no studies proposed that focus on this topic.

3. River Bank Erosion Study

1. This study should be categorized under "Geology and Soil Resources" in the resource issues section. The goals of this study include determining the causes of river bank loss, including determining and quantifying the estimate of river bank loss due to dam operations; quantifying the loss of high-quality agricultural soils and eroded town properties, and mapping the extent of areas needed to stabilize the river banks. In addition, it is important to determine and quantify the benefits of pool fluctuations. Finally, the study should seek to evaluate solutions that will mitigate or slow the loss of river bank, such as dam management strategies, revegetation, bank grading and armoring, among others.

2. Preservation of prime farm lands, roads, and stable rivers are public goods.

3. Farmers owning land abutting the Connecticut River have reported losing cropland as a result of erosion, and the erosion is ongoing. High quality agricultural soils are disappearing, and are a vital resource that helps to sustain the local community. This erosion also results in sediment and nutrient water quality impacts. River bank erosion not only impacts agricultural lands, but also private property, town owned property and riparian ecosystems.

4. There is information that exists which addresses this topic, and can be found in the 1979 U.S. Army Corps of Engineers Connecticut River Erosion study, however it is somewhat dated. Therefore, we believe there is a need for updated information. We need to understand and quantify the amount of erosion caused by "natural" processes and the amount caused by the

operation of the dam instead of using vague and inexplicit language to describe the causes of erosion above the Wilder dam, and understanding the more localized causes of erosion will better inform the process of developing mitigation strategies.

5. The elevation maintained by Wilder dam saturates soil, leading to erosion. As the 1979 U.S. Army Corps of Engineer's study explained, river bank erosion behind a smaller dam, like the Wilder dam, is greater than behind a larger dam, due to the greater fluctuations in water level. The continuous raising and lowering of water level behind Wilder dam exacerbates soil erosion. Finally, TransCanada's PAD assesses some responsibility for river bank erosion on agricultural practices, while undervaluing the impacts of reservoir pool fluctuation on erosion. The study proposed could help sort out and quantify the causes of erosion. Where is it found that bank erosion is exacerbated by dam operation, TransCanada should be required to change or modify its operations to mitigate erosion. The owners may also be required to pay money into a fund for farmers or town to offset this damage, or purchase additional land or easements to the extent needed to stabilize the banks.

6. We are not proposing any specific study methodology, but this is no doubt a matter that has been studied elsewhere since 1979.

7. We estimate that the cost of this study will be $400,000. There are currently no proposed studies that focus on river bank and agricultural soil erosion.

4. Comprehensive Decommissioning Study

1. This study should be categorized under "Developmental Resources" in the resource issues section. The goals of this study should be: to determine the economic impacts of decommissioning the Wilder dam, including, but not limited to, impacts on TransCanada, on the local communities, on the regional economy; to determine the environmental impacts of decommissioning and/or removing the Wilder dam, not only on the river but on sources replacement power. The study should determine the recreational and environmental impacts of decommissioning and/or removing the Wilder dam. Lastly, the study should determine the Wilder dam's anticipated lifetime and the point at which decommissioning is required, evaluate the costs of decommissioning and removal of the Wilder dam, and evaluate the corporation's capacity to finance the decommissioning of the dam and/or remove the dam infrastructure.

2. The Wilder dam should be managed throughout its lifetime, from cradle to grave. A thoughtful decommissioning versus and unplanned decommissioning would provide many benefits.

3. There are a number of public interest considerations that are tied to the future decommissioning of the Wilder dam, including the fact that the dam provides hydropower to the grid. Residents and visitors have also become accustomed to the recreational opportunities found on the Wilder dam reservoir, such as boating, fishing, and canoeing/kayaking. We believe

that local economies may suffer temporarily if recreationalists and festival-goers no longer use the River in the same capacity as they once did, if dam infrastructure is completely removed. This removal would change the area from a lake-like body of water to a much shallower free-flowing stream. Lastly, the region and town and communities adjacent to the Connecticut River will suffer if TransCanada cannot afford to decommission the dam or it becomes insolvent. TransCanada is a corporation, and there is no guarantee that they will be solvent when the time comes to begin the decommissioning process. It is possible that local communities or the state would be left with the responsibilities that come with decommissioning a dam.

4. To our knowledge, there is no information that exists on the topic of decommissioning. Our hope is that this data and information will help TransCanada plan for the future of the Wilder dam and inform the size of decommissioning funds.

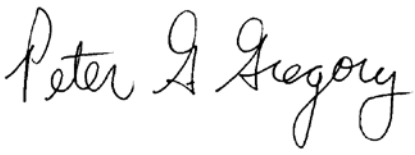
5. The Wilder dam will not last in perpetuity, and at some point decommissioning will need to be discussed. In the license, FERC may require TransCanada to begin placing capital in a decommissioning account that can be used when the dam is decommissioned.

6. We are not proposing any specific methodology.

7. We believe this study could be conducted with a budget of $100,000. The proposed alternative studies would not be adequate because there are currently no studies proposed, to our knowledge, that focus on decommissioning.

We appreciate the opportunity to provide our input. Please contact me if you have any questions.

Sincerely,



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