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Via Electronic Filing

April 6, 2021

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

**Subject: Niagara Hydroelectric Project (FERC No. 2466-034)  
Response to Comments on the Initial Study Report**

Dear Secretary Bose:

Appalachian Power Company (Appalachian or Licensee), a unit of American Electric Power (AEP), is the Licensee, owner, and operator of the run-of-river, 2.4-megawatt Niagara Hydroelectric Project (Project) (Project No. 2466), located on the Roanoke River in Roanoke County, Virginia. The Project is currently licensed by the Federal Energy Regulatory Commission (FERC or Commission). The Project underwent relicensing in the early 1990s and the current operating license for the Project expires on February 29, 2024. Accordingly, Appalachian is pursuing a subsequent license for the Project pursuant to the Commission's Integrated Licensing Process (ILP), as described at 18 Code of Federal Regulations (CFR) Part 5.

Pursuant to 18 CFR § 5.15(c), Appalachian filed the Initial Study Report (ISR) with the Commission on January 11, 2021. The ISR filing also included notification of the ISR Meeting date, time, and proposed agenda. As required by the ILP schedule, within 15 days of the ISR filing Appalachian held a virtual ISR Meeting via Webex from 10am to 3pm on Thursday, January 21, 2021. The ISR meeting summary was filed with FERC on February 5, 2021. Stakeholder comments on the ISR meeting summary were due by March 7, 2021.

The following parties provided written comments in response to Appalachian's filing of the ISR meeting summary: FERC staff, Roanoke County, United States Fish and Wildlife Service (USFWS or the Service), Roanoke Regional Partnership, Roanoke River Blueway Committee, Roanoke Valley Greenways, and the Virginia Department of Environmental Quality (VDEQ).

Appalachian is hereby providing responses to stakeholder comments received on the ISR, including general comments and requests as well as those that constitute a request for a modified

or new study.<sup>1</sup> Based on the information presented in the ISR and at the ISR meeting and provided by commenting entities in their responses, Appalachian does not believe that any modifications to existing studies or new studies are required. Appalachian has, however, made a good faith effort to accommodate reasonable requests, including extension of certain study activities into the 2021 field season, as explained in detail in Appalachian's responses below.

## **General**

### *Stakeholder Comments:*

FERC requests that in order to facilitate the National Environmental Policy Act (NEPA) analysis, Appalachian should file with the draft license application (DLA) the following: the geospatial data (e.g., exports from Global Positioning System (GPS) devices, or Geographic Information System (GIS) shapefiles), including the sampling locations, mesohabitat, substrate, and cover maps; shoreline habitat classifications; and any other GIS data layers that were created as part of the following studies: 1) Bypass Reach Flow and Aquatic Habitat Study, 2) Benthic Aquatic Resources Study, 3) Fish Community Study, 4) Water Quality Study, 5) Shoreline Stability Assessment Study, and 6) Wetlands, Riparian, and Littoral Habitat Characterization Study.

### *Appalachian's Response:*

Appalachian will submit applicable GIS data directly to FERC staff for the purposes described above in conjunction with the DLA, as available. (Because the DLA will be filed before the Updated Study Report (USR), for certain studies final geospatial data may not be available until and provided concurrently with the FLA).

## **Water Quality Study**

### *Stakeholder Comments:*

Due to concerns that water quality measurements collected during the 2020 study period may not be representative of water quality conditions at normal or below normal flow conditions, the VDEQ and USFWS recommended that bypass reach temperature and dissolved oxygen (DO) monitoring in 2021 be extended through October 2021 to ensure that water quality during low flow periods is captured.

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<sup>1</sup> Pursuant to section 5.15(d) of the Commission's regulations, any proposal to modify a required study must be accompanied by a showing of good cause, and must include a demonstration that: (1) approved studies were not conducted as provided for in the approved study plan; or (2) the study was conducted under anomalous environmental conditions or that environmental conditions have changed in a material way. As specified in section 5.15(e), requests for new information gathering or studies must include a statement explaining: (1) any material change in law or regulations applicable to the information request; (2) why the goals and objectives of the approved study could not be met with the approved study methodology; (3) why the request was not made earlier; (4) significant changes in the project proposal or that significant new information material to the study objectives has become available; and (5) why the new study request satisfies the study criteria in section 5.9(b).

In addition, the USFWS recommends that the Water Quality Study be repeated in 2021 based on the following: (1) data was not collected or available for approximately 50% of the 2020 study period, (2) there was a 47% increase in average annual precipitation, thus the 2020 data was collected during an abnormally wet year, and (3) the Project was not operating for the last two months of the 2020 study, thus it is not possible to assess the impact of Project operations on water quality during this normally low flow period.

USFWS also recommends that Appalachian check and clean data loggers weekly during data collection to avoid the loss of water quality data from biofouling.

*Appalachian's Response:*

Appalachian agrees with VDEQ's and USFWS's statements that flows in the bypass reach during the 2020 water quality study season were not representative of typical or minimum bypass flow conditions at the Project. Appalachian believes this is not primarily due to river flows, but instead to the inoperability (i.e., held in constant open position) of the trash sluice gate and the extended powerhouse outage reported in the Preliminary Water Quality Study Report. Consistent with VDEQ's and USFWS's request for additional water quality data collection in the bypass reach in 2021, for the upcoming 2021 water quality study season, Appalachian proposes to reinstall two continuous temperature and DO data sondes in the bypass reach (one at the upstream monitoring location and the other at the downstream monitoring location) from July – September. Due to the effort and costs associated with extending the field sampling for an additional month relative to the value of the additional data collected to the overall Water Quality Study, Appalachian proposes to continue sampling through October if water temperatures do not appear to be decreasing by the end of September. Appalachian does not believe that the need for continued sampling in the bypass reach beyond September be based on flow conditions, unless the July – September sampling period fails to capture water quality conditions at the approximately required minimum bypass flow of 8 cfs and it is projected (based on Project operating conditions and weather forecasts) that bypass reach flows will decrease to this level in October. To coincide with this additional bypass reach data collection, Appalachian also proposes to reinstall a continuous temperature and DO data sonde in the tailrace to capture additional data during powerhouse operations.

Appalachian will check and clean the data sondes at approximately two-week intervals<sup>2</sup> and adjust accordingly depending on degree of biofouling observed in the field. Based on the 2020 data collection effort, biofouling was less prevalent at the non-reservoir monitoring locations. The existing plan to check and clean the data sondes at these locations at two-week intervals is based on the direct experiences of Appalachian's consultant with instrumentation in these locations in 2020 and takes into appropriate consideration the significant increase in study costs and efforts to perform this task on a weekly basis.

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<sup>2</sup> The term approximately is used here because of the potential for fieldwork to be shifted and rescheduled to accommodate site conditions and field personnel safety.

Except as noted in the paragraph below, Appalachian does not propose to collect additional water temperature, DO, pH, and specific conductivity data at the upstream and reservoir locations in 2021. Appalachian does not believe that doing so would significantly improve the understanding of water quality at these locations, or result in different conclusions than presented in the Preliminary Water Quality Study Report. To evaluate USFWS's comments, Appalachian's consultant conducted a review of water quality data collected at the U.S. Geological Survey (USGS) Roanoke River at Thirteenth Street Bridge gage (USGS 02055080), which is at the upstream end of the Niagara impoundment, to see how water quality parameters measured at the upstream Project locations in 2020 compare to those measured for inflow to the Project in previous years for which (continuous) water quality data is available. This review revealed that **baseflow and episodic significant precipitation events do not appear to impact water quality in the upstream reservoir locations**. Even during 2008, which is the third driest year on record<sup>3</sup>, Roanoke River water temperature and pH upstream of the Project met Virginia Class IV water quality standards. Specific conductivity concentrations recorded in 2008 were also consistent with concentrations measured during the 2020 study period. This indicates that even under very low flow conditions, water temperature, pH, and specific conductivity measurements upstream of the Project are similar to those collected by Appalachian in 2020, under higher prevailing baseflow conditions. DO data were not collected at the Thirteenth Street Bridge location in 2008; however, concentrations at this location during September 2019 ranged from 6.8 – 10.0 milligrams per liter (mg/l) under a monthly average flow of only 108.5 cubic feet per second (cfs), which was less than half the September 2020 monthly average flow of 256.4 cfs. DO concentrations and water temperatures measured at the Thirteenth Street Bridge gage were similar between September 2019 and 2020 indicating that lower project inflows do not necessarily equate to significant differences in water temperatures or DO concentrations.

Based on the results and conclusions presented in the Preliminary Water Quality Study Report and the historic flow and water quality data provided by the Thirteenth Street gage, water temperature, DO concentrations, and pH meet state water quality standards during periods of high and low Project inflows. Additional collection of continuous water quality data, which is largely redundant with that already being done [by others] at the Thirteenth Street gage, is neither warranted nor necessary to evaluate potential Project impacts on water quality.

As stated in the Preliminary Water Quality Study Report, water quality at the Project forebay monitoring location met Virginia Class IV water quality standards for temperature, DO, and pH during the entire 2020 study period. While the generating units were not operating during the last two months of the study period, this resulted in a worse-case scenario whereby 100 percent of the inflow to the Project was routed away from the powerhouse and into the bypass reach. The only significant decrease in DO concentrations observed during the study period occurred during the week immediately after the start of an unplanned outage which began on September 8, 2020 and

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<sup>3</sup> Based on flows recorded at the Roanoke River at Roanoke, VA gage (USGS 02055000) from 1900 – 2020. This gaging station is approximately 2.6 river miles upstream from the Thirteenth Street Bridge gage (USGS 02055080).

lasted through the end of the study period on November 10, 2020. During a more typical year when the units are operating, temperature and DO stratification in the forebay area would be minimized as flow is routed to the powerhouse. Because this “worse case” condition for water quality in the forebay was captured during the 2020 study season, Appalachian does not believe it necessary to repeat continuous water quality data collection at this location in 2021 and does not believe that the return on this effort with respect to informing the results of the Water Quality Study is commensurate with the additional effort and cost. Appalachian appreciates, however, stakeholders’ interests in confirming 2020 Water Quality Study results in the forebay location during the 2021 field season. Therefore, Appalachian proposes that during equipment checks and data downloads for the bypass reach and tailrace monitoring locations, Appalachian will also collect discrete water quality profile data (temperature, DO, pH, and specific conductivity) at the forebay monitoring location. Additionally, Appalachian proposes to reinstall a continuous temperature and DO data sonde in the tailrace that can be correlated with the Thirteenth Street data.

Because Appalachian is not proposing to reinstall the upstream and reservoir continuous monitoring locations in 2021, water quality data (temperature, DO, pH, and specific conductivity) recorded at the Thirteenth Street Bridge USGS gaging station and Tinker Creek above Glade Creek at Roanoke, VA (USGS 0205551614) monitoring location will be included in the USR to represent water quality for Project inflow.

## **Benthic Aquatic Resources**

### *Stakeholder Comments:*

USFWS notes that there is a large riffle at the bottom of the UNIO-Tailrace Survey Area that offered the first continuous area of stable gravel/cobble substrate and may represent the beginning of suitable mussel habitat that was not surveyed. To address this data gap, USFWS recommends that an additional 500 meters of the downstream Survey Area be established in this area of suitable habitat below the UNIO-Tailrace Survey Area and surveyed for freshwater mussels

### *Appalachian’s Response:*

During review of USFWS’s comment summarized above, it came to the attention of Appalachian and Appalachian’s consultants that the ISR figure illustrating the UNIO-Tailrace Survey Area did not accurately represent the area that was actually surveyed (instead portraying a relic shapefile created during the study planning process). Additionally, the ISR text provided an oversimplified summary of the survey effort completed in that location. Appalachian’s consultants have corrected these errors, and Attachment 1 to this filing provides figures illustrating the correct location and extent of the UNIO-Tailrace Survey Area that was evaluated during the 2020 field effort. As shown in these figures, the mussel survey for the UNIO-Tailrace Survey Area was initiated further downstream from the Blue Ridge Parkway Bridge, extended downstream for 500 meters, and covered the full extent delineated in the Revised Study Plan (RSP) methods and maps.

With respect to USFWS's request for expanded mussel survey, Appalachian notes the following:

- The selection of sites and proposed methodology identified in the RSP and completed during the 2020 field season were developed in consultation with specialty staff from the Virginia Department of Wildlife Resources (DWR).
- The UNIO-Tailrace Survey Area is already located well downstream of the Project boundary.
- Results of the 2020 Mussel Survey indicated that very low mussel density and diversity exists throughout the study area, a trend that was consistent above and below Niagara Dam and in Tinker Creek. The low density and diversity observed during the study is attributable to numerous confounding factors in the watershed, including but not limited to: (1) the high proportion of bedrock in the study reach; (2) the Roanoke River flows through the City of Roanoke before reaching Niagara Dam and is influenced by urban point source and non-point source impacts, and (3) the upstream watershed is also influenced by residential and agricultural land uses and runoff.
- The stretch of Roanoke River between the lower extent of the study area and the Smith Mountain Project downstream may offer additional small patches of potential mussel habitat. However, a portion of the area requested for further survey effort was already included in the 2020 survey, as shown in Attachment 1.

On the basis of the following, Appalachian does not propose to perform additional mussel survey as requested by USFWS. (1) The results of the 2020 Mussel Survey indicate mussel density and diversity of the Roanoke River near the Project is very low. (2) The downstream extent of the 2020 field sampling efforts was just over a mile downstream of the Niagara Dam. The requested expanded area is beyond the extent of hydraulic influence of Project operations. Appalachian also does not believe that results of additional survey in this downstream reach would meaningfully inform the development of license requirements for the run-of-river Niagara Project. (3) The 2020 survey was conducted in conformance with the approved Study Plan and included specific agency consultation regarding sampling locations and methods. The completed study fulfills the study objectives and did not result in any new information that is material to the study objectives and merits additional study.

## **Fish Community**

### *Stakeholder Comments:*

FERC requests a summary of length and weight information (e.g., size distributions) for each fish species collected during the backpack and electrofishing surveys (note: this request was made during the ISR meeting as well).

*Appalachian's Response:*

A summary of fish length and weight data by species and sampling methodology will be provided in the final Fish Community Study Report to be submitted with the USR.

*Stakeholder Comments:*

USFWS indicates that if it is not feasible to directly measure the intake velocity using an ADCP, they would recommend that the Licensee perform a 1-Dimensional (1-D) analysis, which would provide a more accurate estimate of intake velocities than the method used in the study. The 1-D analysis should calculate normal flow (not approach flow) and open-area velocity (also known as impingement velocity) as per the Service's Fish Passage Engineering Design Criteria (Criteria). They also request that Appalachian provide the calculations for review before using the velocities in the entrainment and impingement study.

Regarding the susceptibility of fish to impingement/entrainment at the Project based on their burst swim speeds, USFWS recommends that Appalachian address the fact that migratory fish species may be attracted to the intake and may not actively avoid the intake, which can lead to higher entrainment rates for migratory species than would be predicted by the current (entrainment) study. USFWS also recommends that the Licensee expand its analysis to compare swimming capability to the open-area velocity; the estimate of the open-area velocity is important since fish that contact an intake rack will experience a far greater velocity than the approach velocity (within several inches of the rack, fish will experience the open-area velocity per Criteria reference Plate 9-1). The open-area velocity is influenced by the blockages created by the structure of the rack and for typical intake racks, this translates to an open-area velocity approximately twice that of the approach velocity.

*Appalachian's Response:*

Appalachian and Appalachian's consultants appreciate USFWS's technical review and feedback on this study. In the experiences of Appalachian's consultant, approach velocities are typically used in desktop entrainment and impingement analyses and are compared to swim burst speeds of target fish species to determine their ability to escape velocities directly in front of the intake structure. As requested by USFWS, as part of the ongoing Fish Community Study, Appalachian's consultant will calculate open-area velocity at the intake structure trash rack and compare fish swim burst speeds to the open-area velocity, as fish that contact the trash racks would be exposed to an increased intake velocity on the trash rack bars. Corresponding assumptions, inputs, and results for both calculations will be presented in the final entrainment and impingement study report to be submitted with the USR.

*Stakeholder Comments:*

USFWS requests further clarification regarding whether the racks are continually cleaned/cleared of debris for optimal project operation and if debris cleaning is sufficient to prevent an effect on intake velocity.

*Appalachian's Response:*

Appalachian will present, in the USR, the requested additional description of operating protocol for cleaning the trash racks in front of the intake structure. Discussion in the USR will address the frequency and magnitude of the debris clearing process and the expected efficacy of the process at maintaining consistent intake velocities.

*Stakeholder Comments:*

USFWS requests that the following issue be addressed: Section 5.3 states that none of the habitats preferred by the Roanoke Logperch (RLP) are found in the vicinity of the intake, and therefore, the likelihood of entrainment of RLP is considered low. Because larvae of RLP drift for long distances downstream from their spawning habitats (Buckwalter et al. 2019), the potential for entrainment for RLP during the spawning season (March to June) would be higher than what is presented in Table 5-10 (Qualitative Monthly Turbine Entrainment Potential for Target Species).

*Appalachian's Response:*

Although larval RLP may drift large distances downstream from spawning sites, it is unknown if larval RLP in the Roanoke River drift a sufficient distance to become susceptible to entrainment at the Niagara Dam intake structure. In accordance with the approved RSP, an RLP Larval Drift Study is currently proposed and planned for the upcoming 2021 field season, pending issuance of a Section 10(a)(1)(A) permit from the USFWS's regional office to support the field study sampling efforts. An application for this permit was filed by Appalachian's consultant in December and discussed during the ISR meeting. Results of the study will then be used to refine the determination of RLP susceptibility to entrainment at the Niagara intake structure. In the event that the RLP Larval Drift Study is not able to be completed in 2021, the qualitative assessment of larval RLP susceptibility to entrainment will be revised from low to moderate susceptibility to provide a more conservative assessment of risk.

## **Bypass Reach Flow**

*Stakeholder Comments:*

USFWS notes that Section 4.6.3 of the RSP states that the 2-D model would be capable of simulating different flow release points to the bypassed reach including through the sluice gate and over the spillway crest. The Service requests clarification that this modeling will be performed as part of this study as stated in the RSP.

*Appalachian's Response:*

Appalachian will simulate bypass flow releases via the Obermeyer trash sluice gate and across the spillway crest to evaluate differences in depth and flow patterns in the bypass reach. If there are significant differences in depths and velocities that extend below the bedrock pool at the toe of the spillway, habitat modeling results will be developed and evaluated to determine if there are differences in the amount and location of potential available habitat.



While the hydraulic/habitat model will be capable of simulating minimum flows over the spillway crest, Appalachian has not assessed the feasibility or practicality of operating the Project in this manner (i.e., at a constantly higher reservoir level to deliverable minimum flows to the bypass reach via the overflow spillway during certain periods).

## **Recreation Study**

### **Study Plan Revision Requests**

#### *Stakeholder Comments:*

Due to the upcoming scheduled closing of a portion of the Roanoke River Trail and Overlook from March 2021 – March 2022 for rehabilitation of the Blue Ridge Parkway bridge over the Roanoke River, Roanoke County, Roanoke Regional Partnership, Roanoke Valley Greenways, and Roanoke River Blueway Committee request that the final assessment of the Recreation Study be amended to extend the window of field data collection through the fall of 2022.

#### *Appalachian's Response:*

Appalachian does not propose to continue the Recreation Study in 2022 (after the filing of the FLA) to accommodate the abovementioned Blue Ridge Parkway bridge closure. Construction at the Blue Ridge Parkway has been delayed a month already, and the National Park Service estimates construction will continue through Spring of 2022, so a full season of data collection may not even be feasible in 2022. Appalachian's consultant will complete the Recreation Use Documentation task to the best of their ability in 2021 at the Roanoke River Overlook and Trail (Non-Project facility) and expects and to conduct at least two on-site interviews before the closing. Appalachian has also collected relevant information about the Roanoke River Overlook and Trail through the online survey (which will continue through the 2021 study season) as well as anecdotal observations of recreation usage of this area made by Appalachian and Appalachian's consultants in 2020 and 2021.

Postponing the Recreation Use Documentation task (or even a portion of it) until 2022 would constrain Appalachian from completing the Recreation Study on time and in alignment with the ILP schedule. In summary, if planned construction at the Blue Ridge Parkway closes the Roanoke River Outlook and Trail, the Recreation Use Documentation task will not be completed at this location due to circumstances beyond Appalachian's control (i.e. COVID-19 in 2020 and Blue Ridge Parkway construction in 2021). However, the Recreation Use Documentation task will continue as planned to gather use data at the other Non-Project facilities listed in the RSP.

In the RSP, it was assumed that personnel obtaining visitor use data from the Roanoke River Overlook and Trail would also assess usage of the Project canoe portage since the put-in is located directly across the river and is visible from the end of the Roanoke River Trail. However, since Appalachian may not be able to access the Roanoke River Trail throughout the course of the 2021 study, Appalachian proposes to install a trail camera in the vicinity of the portage put-in location

to record any activity during the Recreation Use Documentation timeframe (May through October).

Based on collection of data and relevant information about the Roanoke River Trail through other study activities and stakeholder consultation, Appalachian does not believe that conducting the Recreation Use Documentation task of the Roanoke River Overlook and Trail (a Non-Project Recreation Facility) would meaningfully inform the development of license requirements for the Niagara Project.

*Stakeholder Comments:*

Roanoke Valley Greenways requested that the Roanoke River and Tinker Creek Greenways be included in the Recreation Facility Inventory, which would update the analysis to include bicycling and additional fishing and boating access.

The Roanoke Regional Partnership, Roanoke River Blueway Committee, and Roanoke County requested that the Roanoke River Greenway, Tinker Creek Greenway, Roanoke River Blueway, and Explore Park are added to the Recreation Facility Inventory as Non-Project Recreation Facilities.

*Appalachian's Response:*

Appalachian does not propose to expand or modify the Recreation Facility Inventory task of the Recreation Study. The Recreation Facility Inventory was completed in 2020 in full conformance with the approved RSP, with results provided in the ISR. Appalachian does not believe that the stakeholders' requests to expand this task to include additional Non-Project Recreation Facilities that lack a nexus to Project operation and effects meet the ILP criteria for a modified or additional study.

## **Recommended Recreation Improvements**

*Stakeholder Comments:*

The Roanoke River Blueway Committee, Roanoke County, and the Roanoke Regional Partnership encourage Appalachian to consider supporting development of a public access facility upstream (river-right) and adjacent to the Niagara reservoir that will provide vehicular parking. A river access at this location might reduce or obviate the need for any portage on river left if boaters could use a shuttle around the dam and put in again below the dam.

Roanoke County is interested in partnering with Appalachian to make these blueway improvements possibly on land located adjacent to the Project boundary that is owned by the Virginia Recreational Facilities Authority and under a lease for Explore Park. Roanoke River Blueway Committee concurs with this request and added that any proposals from this work should take into account the planned Roanoke River Greenway which is under development in this area.

Roanoke Valley Greenways has requested that Appalachian consider the following solutions to

improve recreational opportunities in the Project area: purchase property on river-right near Niagara Dam to provide parking and boating access, provide a portage around Niagara Dam on river-right, and provide Roanoke County with right-of-way for Roanoke River Greenway on river-right on AEP-owned land.

*Appalachian's Response:*

Appalachian appreciates the detailed comments provided by stakeholders and looks forward to additional consultation with recreation stakeholders in 2021 to inform Appalachian's licensing proposal and to identify opportunities for practical cooperation regarding regional recreation initiatives with a nexus to the Niagara Project.

*Stakeholder Comments:*

Roanoke River Blueway Committee indicated support for any proposed improvements to the existing portage. Possible improvements to consider include increased or more effective signage, and improvements to the take-out or put-in locations above and below the dam, respectively. Other ideas which should be included in the study of the portage include a phone that could be used to call for assistance and consideration of an access point on river right just above the dam to provide an alternate portage location.

*Appalachian's Response:*

Appalachian will continue to study use of the Project canoe portage in 2021 through installation of a trail camera, as described above. Also as previously noted, Appalachian looks forward to additional consultation with recreation stakeholders in 2021 to inform Appalachian's licensing proposal and to identify opportunities for practical cooperation regarding regional recreation initiatives with a nexus to the Niagara Project.

## **Recreation Flow Releases**

*Stakeholder Comments:*

Roanoke County and Roanoke Regional Partnership encourages Appalachian to continue evaluating the possibility of controlled releases for recreational purposes that would be advantageous for paddlers during the lower flow late-summer/early-fall months (i.e., July through October) along the Roanoke River downstream of the dam to Explore Park's Rutrough Point. At a minimum, Roanoke Regional Partnership request weekend releases during this period. The 2016 Roanoke County Explore Park Adventure Plan proposes development of an in-river kayak park downstream near the Smith Mountain Lake Project boundary and scheduled releases would enhance this. They also note Class 1 and II white water conditions exist downstream of the Niagara Dam.

*Appalachian's Response:*

Appalachian appreciates the additional information provided in these comments and looks forward to additional consultation with recreation and other resource stakeholders in 2021 to inform

Appalachian's licensing proposal.

### **Existing Recreation Facilities Map Updates**

Numerous comments were filed related to figures presented in the Preliminary Recreation Study Report. Appalachian has proactively updated the Existing Recreation facilities map where feasible, and a revised version of this map with the below noted revisions is provided in Attachment 2.

#### *Stakeholder Comments:*

Roanoke County and the Roanoke River Blueway Committee request that the Rutrough Road Canoe/Kayak Ramp Non-Project facility name be updated to Rutrough Point.

#### *Appalachian's Response:*

The Existing Project-Related Recreation Facilities map has been updated to reflect Rutrough Point. Appalachian will use this naming convention in the USR as well.

#### *Stakeholder Comments:*

Roanoke County, Roanoke River Blueway Committee, and Roanoke Regional Partnership request updates to the Existing Project-Related Recreation Facilities map.

#### *Appalachian's Response:*

Appalachian has updated the Existing Project-Related Recreation Facilities map to include the following requests:

- Added the Tinker Creek Greenway Bridge and the Roanoke River Greenway.
- Added a portage location at the Bennington trailhead.
- Moved the Niagara Portage canoe access closer to the Blue Ridge Parkway.
- Appalachian has to the best of their ability aligned the parcel and recreation facility data publicly available and requested by the stakeholders into the Existing Project-Related Recreation Facilities map. If the stakeholders have a GIS file with more specific details requested that what is publicly available, please e-mail geospatial data or figures to Appalachian so the map can be more effectively updated.

Proposed recreational facilities have not been added to the map at this time (e.g., extensions of the greenway) as the map is intended to illustrate existing recreation facilities around the Study Area (Attachment 2). Garden City Greenway was not added to the map, as it is far upstream and outside of the Study Area.

### **Debris and Trash**

#### *Stakeholder Comments:*

Roanoke County, Roanoke Regional Partnership, and Roanoke Valley Greenways encourage

Appalachian to continue evaluating trash and debris removal alternatives; Roanoke Valley Greenways also recommends that Appalachian consider removing trash at the dam or having a small trash barge on the reservoir.

*Appalachian's Response:*

Appalachian supports educational outreach and trash cleanup on the Roanoke River and routinely removes large debris at the intake such as tires. Appalachian appreciates the additional information provided in these comments and looks forward to additional consultation with stakeholders in 2021 to inform Appalachian's licensing proposal and to identify opportunities for practical cooperation, including educational outreach, trash cleanups within the Roanoke River watershed, and removal of large debris (e.g., tires) at the Project intake.

Appalachian sincerely appreciates the detailed comments provided by relicensing stakeholders and has put careful consideration into the proposals and commitments presented in this response. If there are any questions regarding this filing, please do not hesitate to contact me at (614) 716-2240 or [jmmagalski@aep.com](mailto:jmmagalski@aep.com).

Sincerely,



Jonathan M. Magalski  
Environmental Specialist Consultant  
American Electric Power Services Corporation, Environmental Services

**Attachments**

- Attachment 1 – Benthic Aquatic Resources Study Figures
- Attachment 2 – Existing Recreation Facilities Map

cc: Distribution list  
Liz Parcell (AEP)

# Niagara Hydroelectric Project (FERC No. 2466) Distribution List

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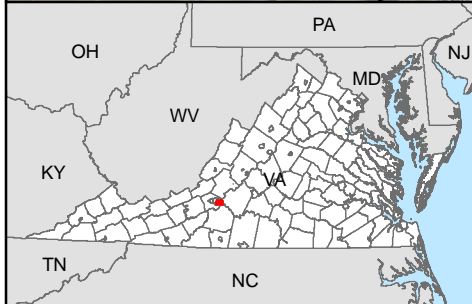
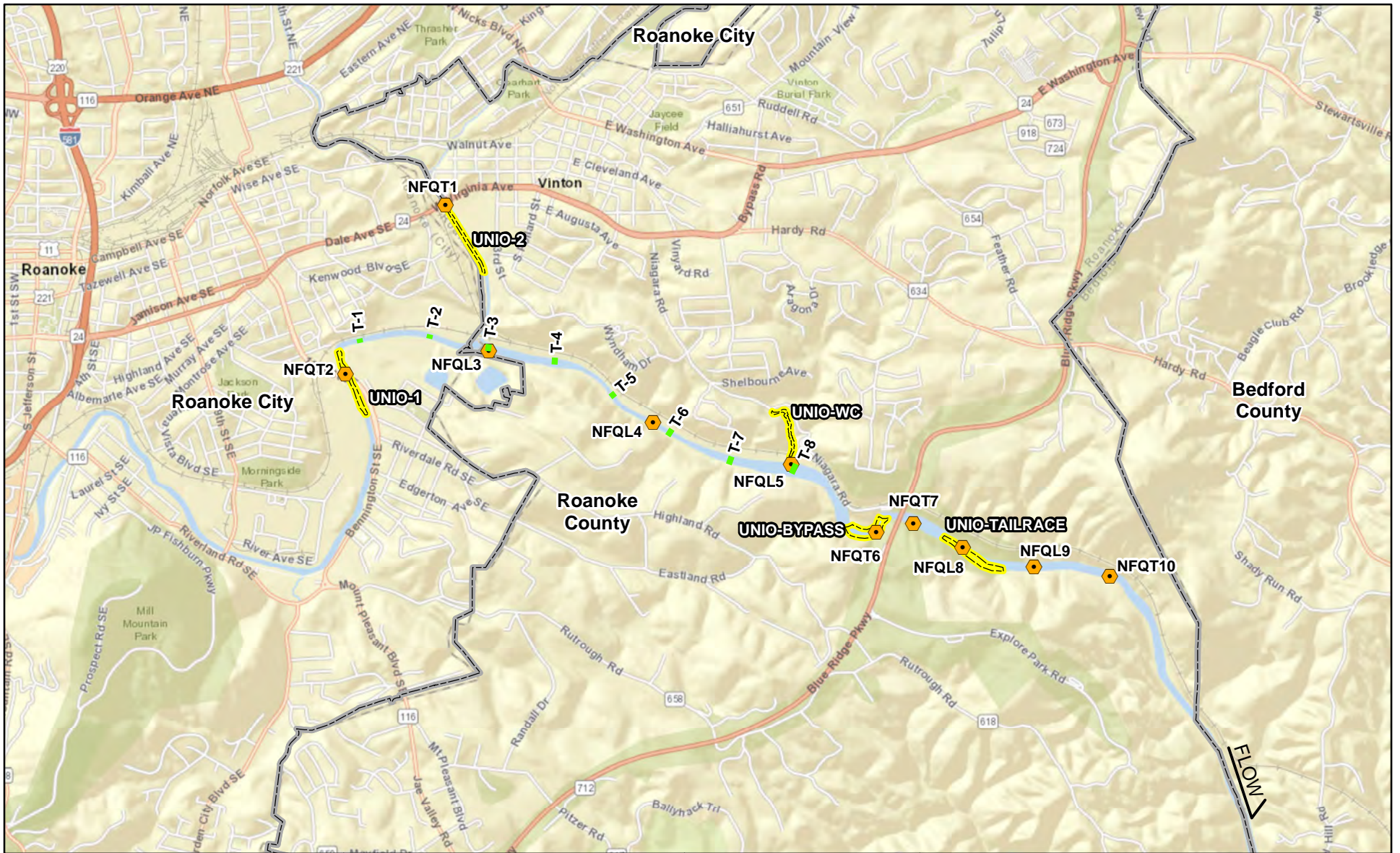
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# Attachment 1

Benthic Aquatic  
Resources Study  
Figures

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**Legend**

- Macroinvertebrate Sample Location
- Mussel Survey Transect
- Mussel Survey Area
- County Boundary

N

0    0.5    1  
Kilometers

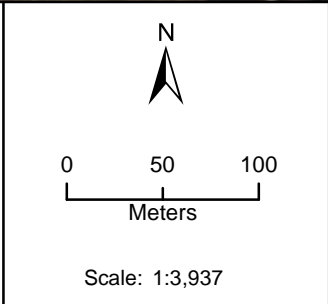
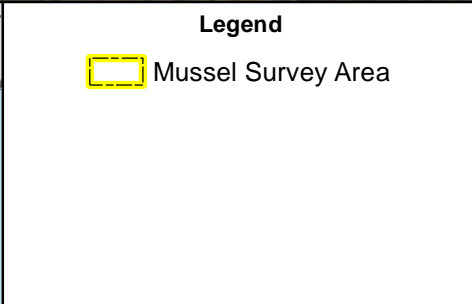
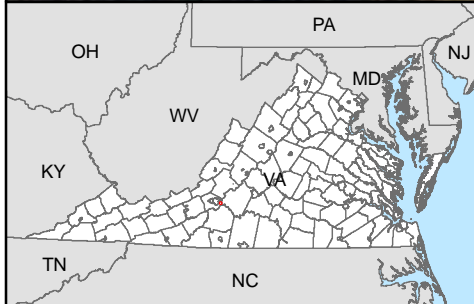
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**American Electric Power**  
**Niagara Dam Benthic Aquatic Resource Study**

Figure 1

Overall Niagara project area including quantitative (NFQT) and qualitative (NFQL) macroinvertebrate survey sites and transect (T) and abbreviated (UNIO) mussel survey sites on the Roanoke River in Roanoke County, Virginia



**American Electric Power**  
**Niagara Dam Benthic Aquatic Resource Study**  
 Figure 24  
 Abbreviated mussel survey extent in mixed habitat  
 in Roanoke County, Virginia

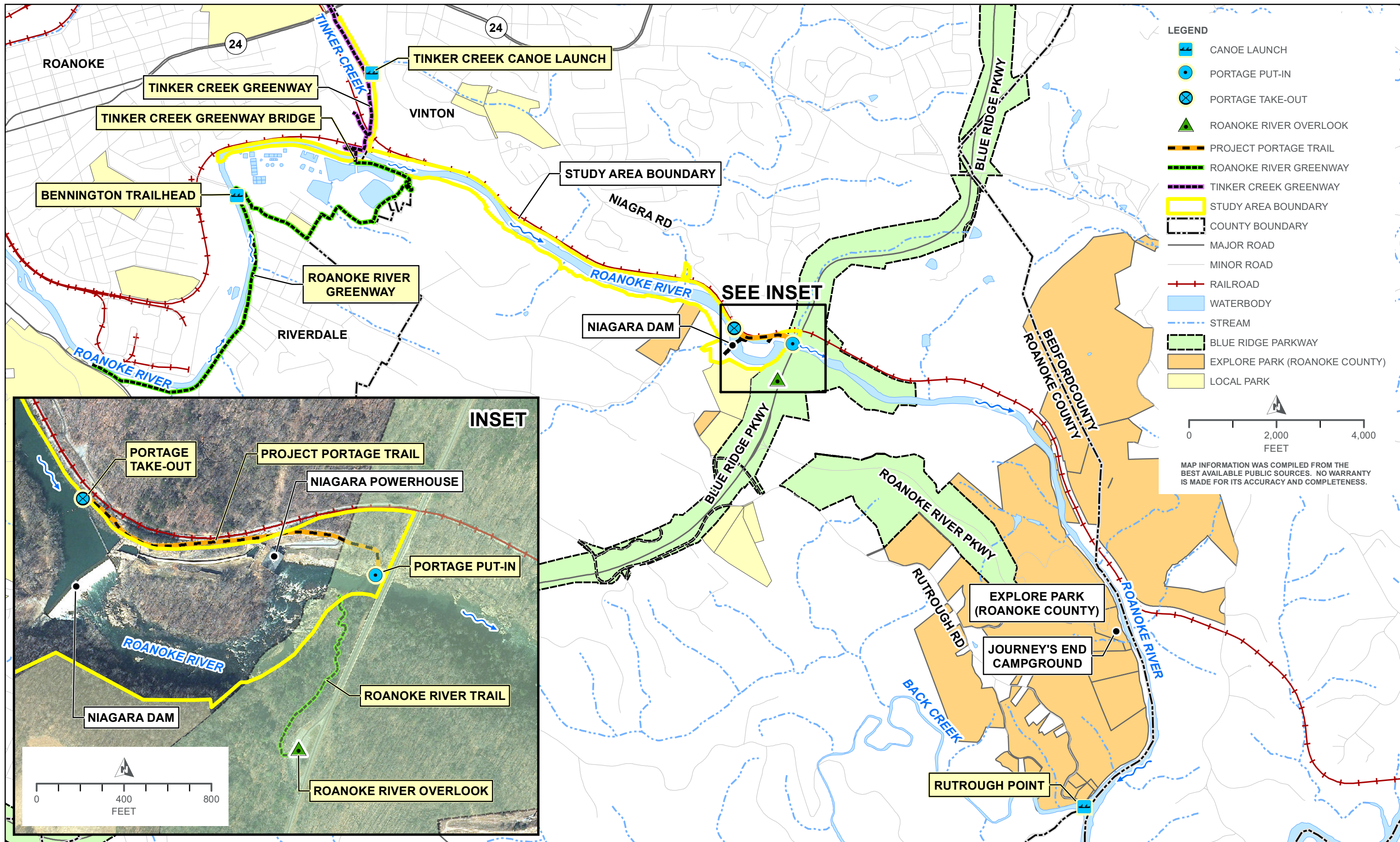


# Attachment 2

Existing Recreation  
Facilities Map

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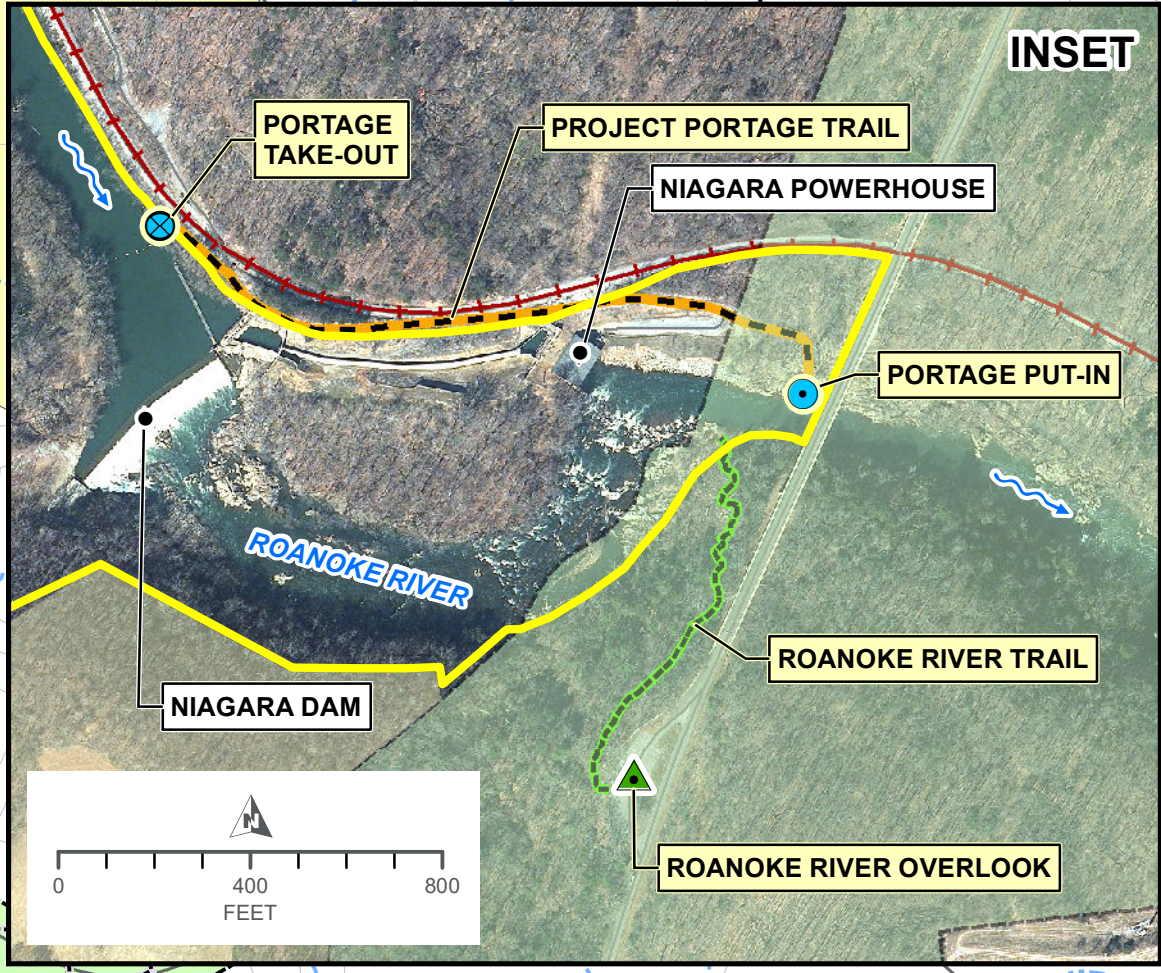




- LEGEND**
- CANOE LAUNCH
  - PORTAGE PUT-IN
  - PORTAGE TAKE-OUT
  - ROANOKE RIVER OVERLOOK
  - PROJECT PORTAGE TRAIL
  - ROANOKE RIVER GREENWAY
  - TINKER CREEK GREENWAY
  - STUDY AREA BOUNDARY
  - COUNTY BOUNDARY
  - MAJOR ROAD
  - MINOR ROAD
  - RAILROAD
  - WATERBODY
  - STREAM
  - BLUE RIDGE PARKWAY
  - EXPLORE PARK (ROANOKE COUNTY)
  - LOCAL PARK



MAP INFORMATION WAS COMPILED FROM THE BEST AVAILABLE PUBLIC SOURCES. NO WARRANTY IS MADE FOR ITS ACCURACY AND COMPLETENESS.



**EXISTING PROJECT - RELATED RECREATION FACILITIES**  
 NIAGARA HYDROELECTRIC PROJECT (FERC NO. 2466)  
 ROANOKE COUNTY, VIRGINIA

