

**Schoolfield Hydroelectric Project
(FERC No. 2411)**

FINAL

**Application for New License
Major Water Power Project 10
Megawatts or Less**

**Attachment 4
Draft License Application
Comment Response Summary**

1 DRAFT LICENSE APPLICATION COMMENT LETTERS AND RESPONSE MATRIX

The Schoolfield Draft License Application (DLA) and Draft Study Report (DSR) were provided to resource agencies, tribes, and other stakeholders on March 31, 2022, for review and comment. Comments were requested to be provided no later than July 29, 2022, 90 days after the DLA and DSR distribution. The following comment letters were received:

- North Carolina Wildlife Resources Commission (NCWRC), Draft License Application and Draft Study Reports, Schoolfield Hydroelectric Project, FERC Project No. 2411, June 20, 2022.
- U.S. Fish and Wildlife Service (USFWS), Draft License Application and Study Reports, Schoolfield Hydroelectric Project (FERC # 2411), Danville, VA, June 24, 2022.
- Virginia Department of Wildlife Resources (VDWR), Schoolfield Hydroelectric Project (FERC P-2411), Review Draft License Application and Study Reports, ESSLog# 40617, June 29, 2022.
- Virginia Department of Conservation and Recreation's Division of Natural Heritage's (VDCR), FERC No. 2411, Schoolfield Hydroelectric Project, June 29, 2022.
- Federal Energy Regulatory Commission (FERC), Staff Comments on Draft License Application for the Schoolfield Hydroelectric Project, July 13, 2022.

[Table 1](#) below provides the responses to comments received on the DLA and DSR within the above letters. Copies of the comment letters are provided in Exhibit E – Appendix A, Consultation Summary.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Table 1. Schoolfield Hydroelectric Project Draft License Application Comment Response Summary.

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
1	NCWRC	June 20, 2022	Section 1.3.2 – Proposed Operations: The co-Licensees propose to continue operating the project in run-of-river mode in accordance with the existing license and with several other provisions. Item 5 states that the existing Sediment Flushing Plan (Article 401) would continue to be implemented, with the added provision of avoiding sediment flushing during the sunfish spawning season. The added provision is designed to minimize impacts to aquatic resources in the impoundment from a rapid lowering of lake levels. It is also important to avoid the impacts of increased sediment and turbidity to downstream aquatic biota during critical life cycles, particularly for mussels. Therefore, we recommend that sediment flushing only occur between November 1 through the end of February.	The co-Licensees have modified the Sediment Flushing Plan proposal to include NCWRC’s recommendation that sediment flushing only occur during the November 1 to February 28 period.
2	NCWRC	June 20, 2022	Section 1 – General Description of Project Locale: The third paragraph mentions the existence of several other hydroelectric projects in the Dan River basin upstream of the Schoolfield project, but Figure 1-1 does not show them. We suggest adding a brief description of the following projects in the text and adding their locations on Figure 1-1: Avalon (P-11169) and Mayo (P-11219) projects on the Mayo River; and Philpott (US Army Corps of Engineers), Martinsville (non-FERC), and Eden (non-FERC) projects on the Smith River. The Philpott and Martinsville projects have historically operated in peaking fashion and may affect flows at Schoolfield.	Section 1 and Figure 1-1 have been updated to include a description and location of these hydroelectric facilities.
3	NCWRC	June 20, 2022	Section 3.4.1 – Operations and Inflow Assessment Study: In our May 13, 2020 comments on the Draft Study Plan, we advised that the study be of sufficient duration to include flows <2,000 cfs and varying upstream hydropower project operations to adequately understand the effects of the Schoolfield project on downstream conditions. Flow duration curves provided in Exhibit A indicate that the median flow for at the project is approximately 1,000 cfs for the months of July–November, indicating that these lower flows are common and should be captured in the assessment. This study was performed over five months, from June–October 2020. Since 2020 was a relatively wet year, flows during the study were <2,000 cfs for only short periods. As a result, there did not appear to be much cycling of the Schoolfield turbines on and off, so the study didn’t provide much information on how the reservoir and operations act to dampen or amplify peaking events from upstream. Appendix B of the Operations and Inflow Assessment Study draft study report does provide some idea how the project affects downstream levels when stream flow is between 1,500-2,000 cfs. Figures B-9, B-14, B-15, B-17, B-18, and B-21 show rapid drops and rises of the river stage downstream of the Schoolfield dam of up to 1.0 feet in less than 1 hour. This can be particularly injurious to biota that are sessile or have limited swimming ability. We surmise that the magnitude and frequency of rapid fluctuations downstream would increase as flows decline below 1,500 cfs due to peaking of upstream projects and operation of the Schoolfield project. For these reasons, we believe the study should be extended to understand how the project affects downstream conditions when river flows are <1,500 cfs, especially when flows are <1,000 cfs. This information would indicate how the Schoolfield project should be operated to limit impacts of rapid stage drops downstream of the project.	Flows during the June 4 thru October 31, 2020 study period were somewhat higher than normal when compared to the historical flows recorded at the Dan River at STP near Danville, VA USGS gage. However, for approximately 53% of the study period flows were less than the 2,000 cfs threshold specified by NCWRC. Additionally, flows were less than 1,500 cfs for approximately 20% of the study period. The co-Licensees believe that these flows were of sufficient duration to characterize the Project’s impacts on downstream water levels, which are described in the Operations and Inflow Assessment Study report, and that no further study is necessary. Scheduling these types of assessments are subject to in-river conditions. The period of assessment was scheduled during the historical period of expected low inflows. Attempting to perform the same in future years under requested conditions is without guarantee.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
4	NCWRC	June 20, 2022	Section 3.4.2 – Baseline Water Quality Monitoring Study: This study was conducted concurrently with the Operations and Inflow Assessment Study, from June–October. Again, since study period didn't include flows less than 1,500 cfs, it is unknown how temperature and dissolved oxygen behave during frequent moderate to low flow periods.	<p>Flows during the June 4 thru October 31, 2020 study period were somewhat higher than normal when compared to the historical flows recorded at the Dan River at STP near Danville, VA USGS gage. However, flows were less than the 1,500 cfs threshold identified by NCWRC for approximately 20% of the study period. The co-Licensees believe that these flows were of sufficient duration to characterize the Project's potential impacts on dissolved oxygen and temperature, which are described in the Baseline Water Quality Study report, and that no further study is necessary.</p> <p>Scheduling these types of assessments are subject to in-river conditions. The period of assessment was scheduled during the historical period of expected low inflows. Attempting to perform the same in future years under requested conditions is without guarantee.</p>
5	NCWRC	June 20, 2022	Section 3.5 – Proposed Protection, Mitigation and Enhancement Measures for Water Resources: The co-Licensees propose to continue to provide an instantaneous minimum flow of 300 cfs or inflow, whichever is less downstream of the Project. During occurrences of reservoir lowering to facilitate the City of Danville's water supply intake inspection and subsequent refilling, the co-Licensees propose to continue to provide an average 24-hr minimum flow of 440 cfs and notify the resource agencies as required by existing License Article 403. It is not clear from these two statements whether the 300 cfs absolute minimum flow will be maintained during the average 24-hour minimum flow of 440 cfs, or if the 24-hour average would allow for instantaneous flows to drop below 300 cfs. We recommend that the language clarify that the instantaneous minimum flow of 300 cfs be maintained at all times during reservoir refill. The co-Licensees propose to continue operations related to reservoir dewatering and refilling to perform inspection and maintenance of the City of Danville's water supply intakes (License Article 403). These operations would occur less frequently (on an as-needed basis rather than annually), and outside the sunfish spawning season. Also, the co-Licensees propose to continue to implement the Sediment Flushing Plan as approved by the Commission by Order Amending and Approving Sediment Flushing Plan dated September 14, 1995 but modifying the timing of the sediment flushing to be outside the sunfish spawning season. As mentioned above, we recommend that the dewatering/refilling and sediment flushing events also avoid impacts to downstream biota during mussel and fish spawning periods. Therefore, sediment flushing and refilling should only occur between November 1 and the end of February.	<p>As part of the co-Licensees' proposal, the instantaneous minimum flow of 300 cfs, or inflow would be maintained at all times during any reservoir refill period. Language clarifying this aspect of the proposal has been added to the license application.</p> <p>See response to Comment No. 1, the co-Licensees have modified the Sediment Flushing Plan proposal to include NCWRC's recommendation that sediment flushing only occur during the November 1 to February 28 period. In addition, reservoir drawdown and refilling related to inspection and maintenance of the City of Danville's water supply intake is proposed to only occur during the November 1 to February 28 period.</p>
6	NCWRC	June 20, 2022	Section 3.6.3 – Sediment Flushing: To more closely mimic natural conditions, we recommend flushing sediment at least annually when flow is >3,000 cfs.	The co-Licensees are proposing that sediment flushing occur only on an as needed basis during high flow periods greater than 3,000 cfs. Annual flushing is no longer required since the City of Danville modified the location of the water supply intakes.
7	NCWRC	June 20, 2022	Section 3.6.4 – Reservoir Dewatering: Again, there is a potential discrepancy between the minimum downstream flows described as being maintained above 300 cfs and a 24-hour average flow of 440 cfs. The latter could be interpreted as allowing periods of flow <300 cfs provided the 24-hour average is >440 cfs. We recommend that the language clarify that the instantaneous minimum flow of 300 cfs be maintained at all times during reservoir refill.	See response to Comment No. 5 , as part of the co-Licensees proposal, the instantaneous minimum flow of 300 cfs, or inflow would be maintained at all times during reservoir refill. Language clarifying this aspect of the proposal has been added to the license application.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
8	NCWRC	June 20, 2022	<p>Section 4.6.2 – Freshwater Mussel Survey: The mussel study consisted of several stages, including a reconnaissance survey to assess habitat within the project boundary, and targeted mussel surveys in suitable habitats. Five targeted mussel surveys were conducted – four in the reservoir and one in the tailwater (Figure 4.6.2-1). All of the reservoir surveys were located in the lower half of the reservoir. Three of the reservoir survey sites were rated as having “poor” mussel habitat, one reservoir site (the uppermost location) was rated as “marginal”, and the tailwater site was rated as “good”. Mussels were only found in habitats rated as “marginal” or “good”.</p> <p>It is unclear why no targeted surveys were done in the upper half of the reservoir. Assuming the upper portion of the reservoir is more riverine in nature than the lower portion, we would expect the habitat in the upper portion to be more suitable for mussels. Mussel surveys in the upper portion of the reservoir may be needed to understand if other mussels are found within the project boundary, particularly those that may be settling out from upstream sources.</p>	<p>Targeted surveys were not conducted in the upper portion of the reservoir as the initial reconnaissance survey of the 5.7-mile-long reservoir did not identify locations of potential suitable habitat in the upper portion of the reservoir. Suitable habitats were only identified in the lower portion of the reservoir. Within these areas of suitable habitat, targeted surveys were subsequently conducted.</p>
9	USFWS	June 24, 2022	<p>Section 3.4.1, Water Resources, Water Resources Study Requests, Operations and Inflow Assessment Study: This section states that one of the goals of the study was to document the effect inflows have on Project operations. This would be accomplished by comparing water levels of the Dan River upstream of the Project reservoir with operations and water levels downstream. In their May 13, 2020 letter to FERC on the Draft Study Plan, the North Carolina Wildlife Resources Commission (NCWRC) recommended that the study be of sufficient duration to include flows less than 2,000 cubic feet per second (cfs) and under varying upstream hydropower project operations to adequately understand the effects of the Project on downstream flow conditions. Flow duration curves provided in Exhibit A of the Application indicate that the median flow at the Project is approximately 1,000 cfs for the months of July–November, indicating that these lower flows are common and should be captured in the assessment.</p> <p>This study was performed over a period of 5 months, from June–October 2020. Since 2020 was a relatively wet year, flows during the study were less than 2,000 cfs for only short periods. As a result, minimal on and off cycling of the Project turbines occurred, so the study provided little information on how the reservoir and operations act to dampen or amplify peaking events from upstream. Appendix B of the Draft Operations and Inflow Assessment Study Report provides some idea how the Project affects downstream levels when stream flow is between 1,500-2,000 cfs. Figures B-9, B-14, B-15, B-17, B-18, and B-21 show rapid changes in river stage of up to 1.0 ft in less than 1 hour downstream of the Project dam. This rapid change in river stage can be particularly injurious to biota that are sessile or have limited swimming ability. It is likely that the magnitude and frequency of rapid fluctuations downstream would increase as flows decline below 1,500 cfs due to peaking of upstream projects and operation of the Project.</p> <p>These lower flows were not captured during the study, representing a data gap in knowledge of impacts from Project operations. Therefore, the Service recommends the study be extended to include low flow periods to understand how the Project affects downstream conditions when river flows are less than 1,500 cfs, especially when flows are less than 1,000 cfs. This information will inform Project operations to limit impacts of rapid stage drops downstream of the Project.</p>	<p>See response to Comment No. 3.</p>

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
10	USFWS	June 24, 2022	<p>Section 3.5, Water Resources, Proposed Protection, Mitigation, and Enhancement Measures for Water Resources: The Licensees propose to continue operations related to reservoir dewatering and refilling to perform inspection and maintenance of the City of Danville’s water supply intakes, and to continue to implement the Sediment Flushing Plan. This section states that these activities will occur outside the sunfish spawning season. The specific dates when these activities would not be conducted are not provided. It is unclear why sunfish were the only species group for which protection, mitigation, or enhancement (PM&E) measures were developed. These activities should also be protective of other fish and mussel species. The Virginia Department of Wildlife Resources (VDWR) has developed time-of-year restrictions (TOYRs) for the protection of fish and wildlife (https://dwr.virginia.gov/wp-content/uploads/media/Time-of-Year-Restrictions.pdf). Many of these TOYRs are applicable at this Project including: warm water fish spawning (April 15 through July 15); federally listed endangered Roanoke logperch (<i>Percina rex</i>) spawning (March 15 through June 30); freshwater mussels – long-term brooders (April 15 through June 15 [glochidia release], and August 15 through September 30 [spawning]); and freshwater mussels – short-term brooders (May 15 through July 31). The Service would like to work with the Licensees to identify a time when these activities (i.e., operations related to reservoir dewatering and refilling to perform inspection and maintenance of the City of Danville’s water supply intakes and to continue to implement the Sediment Flushing Plan) will not affect spawning and sensitive life stages of all aquatic life in the river. This updated TOYR should be included as a PM&E measure for the new license.</p>	See response to Comment Nos. 1 and 5 .
11	USFWS	June 24, 2022	<p>Section 3.6.1, Water Resources, Description of Continuing Impacts on Water Resources by Continued Project Operation, Water Quantity and Project Operations: This section states that the data collected from the Operations and Inflow Assessment Study indicate that as the Project’s fixed-output turbine units were turned on or off, water level changes downstream typically ranging between 0.2 and 0.8 ft. This section further states that these water level fluctuations likely correspond to relatively minor changes in wetted width, average channel velocity, and wetted perimeter. However, no site-specific data is provided to support this conclusion. The Service recommends that this issue be further studied to assess how much and how fast these fluctuations in flow occur to assess how aquatic resources may be affected to support the conclusion that these changes are “relatively minor.” Figure 2.3.3-1 of the Draft Operations and Inflow Assessment Study Report in Attachment 3 of the Application shows some rapid fluctuations in water levels downstream of the Project compared to upstream flows. Many young-of-year fish species occupy the shallow margins of the river including the Roanoke logperch; thus rapid drops in water level of 0.2 to 0.8 ft have the potential to strand and kill these young-of-year fish. These changes in downstream flow are likely more dramatic under lower river flow conditions than were present during the study. If these water level fluctuations from Project operations have the potential to impact aquatic resources, a PM&E measure may be needed as part of the license to modify operations to reduce these fluctuations in downstream flow.</p>	The co-Licensees believe the Operations and Inflow Assessment Study adequately identifies the magnitude and frequency of water level fluctuations below the Project. In particular, the study showed that water level fluctuations (typically ranging between 0.2 and 0.8 ft) attributable to Project operations were the result of the start and stop of the turbine generator units to adjust for changes to anticipated inflow. These types of changes in water levels are unavoidable (typical) with fixed output turbine units. Soon after the change in operations (adding or dropping a unit), outflow again approximated the pattern of inflow. The start and stop of the turbine generator units during the study period was also infrequent, typically occurring every to 3-4 days on average. FERC has recognized in other proceedings that as project operation changes, some flexibility regarding flow fluctuations downstream is needed to allow for brief delays between change in operation and attenuation of the flow.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
12	USFWS	June 24, 2022	<p>Section 3.6.2, Water Resources, Description of Continuing Impacts on Water Resources by Continued Project Operation, Water Quality and Project Operations: This section states that under the current condition, reservoir and downstream water quality are consistent with Virginia Department of Environmental Quality (VDEQ) water quality standards and the Project-affected reaches of the Dan River would continue to support freshwater fish growth, reproduction, and survival. The water quality study was conducted in 2020. Table 1.4.1-1 in the Draft Baseline Water Quality Monitoring Study Report in Attachment 3 of the Application showed below normal precipitation in June, September, and October, and above normal precipitation in July and August. Over the study period, the overall precipitation was above normal. Because of the above normal rainfall, the river did not experience any extended periods of low flow. Therefore, it is unclear if the Project would meet water quality standards during a below normal precipitation and flow season. This issue should be addressed.</p>	<p>Flows during the June 4 thru October 31, 2020 study period were somewhat higher than normal when compared to the historical flows recorded at the Dan River at STP near Danville, VA USGS gage. However, flows were less than the 1,500 cfs for approximately 20% of the study period. The lowest flows in the river over the study period occurred in mid-September during the period of September 9 through September 17, 2020. During this period, the average flow at the Project was approximately 1,270 cfs, with the lowest recorded instantaneous flow of 793 cfs occurring on September 16, prior to a moderate flow event. Instantaneous dissolved oxygen levels remained above 6.5 mg/l at all sampling locations during the entire study period, including the September 9 through September 17 period. The state standard for instantaneous dissolved oxygen in the Project area is 4.0 mg/l. The co-Licensees believe that the study data demonstrate that water quality is maintained well above the state standards at the Project and would continue to meet state standards even under below normal flows.</p>
13	USFWS	June 24, 2022	<p>Section 4.6.1, Aquatic and Fisheries Resources, Aquatic and Fisheries Resources Study Requests and Results, Desktop Entrainment and Turbine Survival Study: This section lists the fish species evaluated as part of the study. The section states that these species were selected based on the fish species documented in the Project area and in consultation with the resource agencies. The consultation email, sent to the resource agencies on February 26, 2021 and provided in Appendix A (Target Species Selection and Consultation) of the Desktop Entrainment and Turbine Survival Study Report in Attachment 3 of the Application, was not sent to the correct Service office and as a result we did not provide input on the species list. We would have recommended that Roanoke logperch be evaluated as part of the study. Roanoke logperch have been documented upstream of the Project reservoir. The NCWRC stated in their letter dated May 13, 2020 on the Draft Study Plan that Roanoke logperch were observed in the mainstem of the Dan River in 2017 upstream of the Project near Berry Hill, VA. Larval Roanoke logperch spawned upstream of the Project can drift into and through the Project making them susceptible to entrainment. Because the Roanoke logperch is a federally listed species, impacts to this species from entrainment should be evaluated. This approach is similar to the evaluation conducted as part of the relicensing studies at the Niagara Hydroelectric Project (#2466).</p>	<p>The February 26, 2021, consultation email indicated that <i>“In addition to the above target species, Roanoke logperch will also undergo the entrainment and turbine mortality assessment because it is known to occur in the Dan River basin upstream of the Project. However, because recent intensive fisheries surveys performed in the mainstem Dan River revealed no collections of the rare darter, the Roanoke logperch will be considered as a tentative target species. Only if specimens are collected during Study 4 – Roanoke Logperch Assessment will effects on the species from entrainment and turbine mortality be provided in final study reports, draft and final license applications.”</i> The co-Licensees’ surveys for Roanoke logperch as part of Study 4 did not identify any specimens in the Project area. Accordingly, due to the absence of this species from the fish community in the Project area it was not included in the entrainment and turbine mortality study. Other recent intensive fisheries surveys performed by other entities in the mainstem Dan River also revealed no collections of Roanoke logperch. With regard to larval Roanoke logperch and their potential to drift downstream from areas outside of the Project area that are further up in the watershed, the Desktop Entrainment and Turbine Survival Study indicated that fish of this size (less than 1-inch in length) had a very high turbine survival rate (99.4%).</p>

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
14	USFWS	June 24, 2022	<p>Section 4.6.2, Aquatic and Fisheries Resources, Aquatic and Fisheries Resources Study Requests and Results, Freshwater Mussel Survey: This section states that the second goal and objective of the freshwater mussel survey was to perform a reconnaissance survey of the Project reservoir periphery and tailwater for potential suitable mussel habitat. Surveys were to be conducted in areas of suitable habitat; however, 3 of the 4 survey locations in the reservoir were determined to be poor habitat quality by the mussel surveyor (05-US-1, 05-US-3, and 05-US-4). The most upstream survey location was in run/pool habitat and was considered marginal habitat quality (05-US-2). This was the only upstream location where mussels were found. An explanation for this approach should be provided as most survey locations did not contain suitable habitat. This is a data gap that should be addressed. The freshwater mussel survey area is shown in Figure 4.6.2-1. It is unclear why the upper half of the survey area was not surveyed. The upper portion of the survey area is more riverine and provides more suitable habitat than the 3 pool locations that were surveyed. The upper part of the reservoir is also more likely to have mussels as a result of mussels spawning upstream and settling in this area. This issue should be clarified as this appears to be a data gap in the mussel surveys. Mussel surveys in the upper riverine part of the reservoir are recommended to fill this data gap.</p>	See response to Comment No. 8 .
15	USFWS	June 24, 2022	<p>Section 4.7, Aquatic and Fisheries Resources, Proposed Protection, Mitigation, and Enhancement Measures for Aquatic and Fisheries Resources: This section states that the reservoir dewatering and refilling to perform inspection and maintenance and the sediment flushing will be done outside of the sunfish spawning season. As stated previously, these activities should also be protective of other fish and mussel species. Based on TOYRs provided by VDWR, the reservoir dewatering and refilling and sediment flushing should not be conducted between March 15 and September 30. This TOYR should be incorporated into a PM&E measure to protect aquatic and fisheries resources.</p>	See response to Comment Nos. 1 and 5 .
16	USFWS	June 24, 2022	<p>Section 5.4, Wildlife Resources, Proposed Protection, Mitigation, and Enhancement Measures for Wildlife Resources: This section states that the co-Licensees do not propose any PM&E measures relative to wildlife resources. However, Section 5.5.2 (Bald Eagles) states that if a bald eagle (<i>Haliaeetus leucocephalus</i>) nest is confirmed to be within 660 ft of the Project boundary, the Licensees will, in consultation with the resource agencies, discuss the need to prepare a bald eagle protection plan. The Service does not agree with this approach. The Service recommends that a bald eagle management plan be developed as part of a PM&E measure so that the Licensees will have a plan in place if/when a bald eagle is encountered within or near the Project boundary. This has become standard practice for hydropower relicensing projects.</p>	The co-Licensees believe that the proposal to consult with resource agencies on the need for a bald eagle management plan, if a bald eagle nest is confirmed near the Project boundary, is appropriate. Developing a management plan at this time would be premature and unnecessary, given there are no known eagle nesting or roosting sites within the proposed Project boundary.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
17	USFWS	June 24, 2022	Section 6.1, Botanical Resources, Invasive Species: This section states that to determine if any invasive species have been observed in the Project area, the Early Detection and Distribution Mapping System (EDDMaps.org) which is a tool for citizen scientists, students, and volunteer projects for basic mapping of invasive species locations, was queried. This tool does not appear to be a comprehensive method for determining if any invasive plant species are located within the Project boundary. Section 6.3 (Proposed Protection, Mitigation, and Enhancement Measures for Botanical Resources) states that the Licensees do not propose any PM&E measures relative to botanical resources. The Service does not agree with this proposal. The Service recommends that a PM&E measure be included in the license that includes the development of an Invasive Species Management Plan. This plan would describe the monitoring for and control of invasive plant species identified within the Project boundary. This has become standard practice for hydropower relicensing projects. The early detection and removal of invasive species will prevent the establishment of larger infestations that can harm native plant and wildlife species.	The co-Licensees believe that development of an invasive species management plan for the Project is not necessary given that infestation by invasive plant species in the watershed is a regional issue, and that Project-specific measures to control invasive species would have little or no impact on the issue as a whole. It is likely that any measures to control invasive species within the relatively small Project area would be rendered ineffective by reinfestation from outside the Project boundary.
18	USFWS	June 24, 2022	Section 8.1, Rare, Threatened and Endangered Species, Federal Species: This section states that the Roanoke logperch was not included in the official species list since the Service determined the Roanoke logperch is not present in the area of the Project boundary. This section further states that the Project boundary (same as above) was used to delineate the spatial area for which the official species list was generated. The official species list should be developed from the action area. The action area is defined (50 CFR 402.02) as “all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action” and should include downstream areas. While the Roanoke logperch is unlikely to occur in the Project reservoir, it has the potential to occur both upstream and downstream of the Project in the free-flowing sections of the river. The Service recommends that the official species list be updated using the correctly defined action area.	The FERC Project boundary by definition (18 CFR 4.41h) encloses those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources. Given this definition, the co-Licensees believe the Project boundary appropriately defines the action area. However, as stated in Section 8.1 “in the acknowledgment that RLP are known to occur in the Roanoke River basin, of which the Dan River is a part of...” the co-Licensees had included within the license application a discussion of RLP occurrence in the Project vicinity as well as an assessment of potential Project impacts on the species and its habitat.
19	USFWS	June 24, 2022	Section 8.1.1, Rare, Threatened and Endangered Species, Federal Species, Northern Long-Eared Bat: This section states that both Figures 8.1.1-1 (Location of known northern long-eared bat [<i>Myotis septentrionalis</i>] hibernacula and maternity roost trees relative to the Project in Virginia) and 8.1.1-2 (North Carolina counties with current records of northern long-eared bat occurrences) indicate there are no known northern long-eared bat hibernacula, maternity roost trees, or known occurrences in the Project vicinity. This data set does not include all capture locations or roost trees that are not maternity roost trees. There are significantly more areas where northern long-eared bats roost than shown in these figures. Unless site-specific bat surveys are conducted, it would be incorrect to state that they do not occur at the Project.	The co-Licensees based the determination that northern long-eared bat hibernacula and maternity roost trees are not likely to occur in the Project vicinity based on the best readily available information.
20	USFWS	June 24, 2022	Section 8.1.4, Rare, Threatened and Endangered Species, Federal Species, Roanoke logperch: This section states that according to the Service’s most recent official rare, threatened, and endangered (RTE) species list for the Project area, the Roanoke logperch is not present in the Project boundary and there is no designated critical habitat for the Roanoke logperch in the Project vicinity. As stated earlier, the action area was drawn incorrectly, and should have included upstream areas and the tailwater area downstream of the Project. When these areas are included, Roanoke logperch is present on the official species list.	See response to Comment No. 18 .

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
21	USFWS	June 24, 2022	Section 8.4, Rare, Threatened and Endangered Species, Proposed Protection, Mitigation, and Enhancement Measures for Rare, Threatened, and Endangered Species: This section states that no resource agency or other entity has proposed any PM&E measures for RTE resources. Other than the release of a minimum flow downstream of the Project, the Licensees are not proposing any PM&E measures for RTE species. As stated previously, the Service recommends a TOYR for reservoir lowering and refilling and sediment flushing to protect listed species that occur within and downstream of the Project. This TOYR should be included as a PM&E measure for listed species. In addition, any tree removal that occurs during the term of the license as part of any maintenance activities has the potential to impact northern long-eared bats. Therefore, the Service recommends that a northern long-eared bat management plan be developed as part of a PM&E measure to protect this species from Project operations.	See response to Comment Nos. 1 and 5 for TOYR for sediment flushing and reservoir drawdown and refill. Most of the upland area within the Project boundary is located around the Project dam, forebay, access road and powerhouse areas, as the Project boundary follows the shoreline elevation of the reservoir. Tree removal is not conducted at the Project as part of normal vegetation management and operation practices. Therefore, the co-Licensees do not believe a northern long-eared bat management plan is necessary at the Project.
22	USFWS	June 24, 2022	Section 8.5.1, Rare, Threatened and Endangered Species, Federal Species, Description of Continuing Impacts on Rare, Threatened, and Endangered Species by Continued Project Operation, Northern Long-Eared Bat: This section states that continued operation of the Project as currently licensed is not expected to affect the northern long-eared bat. The section further states that the Licensees will consult with the Service regarding consistency with the 4(d) rule for the northern long-eared bat (50 CFR Part 17 2016-00617). On March 23, 2022, the Service published a proposal to reclassify the northern long-eared bat as endangered (87 FR 16446-16452). The U.S. District Court for the District of Columbia has ordered the Service to complete a new final listing determination for the northern long-eared bat by November 2022 (Case 1:15-cv-00477, March 1, 2021). The proposed reclassification, if finalized, would remove the current 4(d) rule for the northern long-eared bat, as these rules may be applied only to threatened species. Depending on the type of effects a project has on northern long-eared bats, the change in the species' status may trigger the need to re-initiate consultation for any actions that are not completed and for which the Federal action agency retains discretion once the new listing determination becomes effective (anticipated to occur by December 30, 2022). For more information about the northern long-eared bat, visit our website (https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis). As stated previously, a PM&E measure is needed to protect northern long-eared bats from any tree cutting performed as part of any maintenance activities conducted during the license term. Prior to any tree clearing within the Project boundary or areas immediately adjacent to the Project boundary, the Licensee should conduct a species search in the Information for Planning and Consultation tool (https://ipac.ecosphere.fws.gov/) to determine if the proposed activity is within northern long-eared bat potential habitat. If the proposed activity is within northern long-eared bat potential habitat, a habitat assessment should be conducted using Service guidelines (https://www.fws.gov/sites/default/files/documents/USFWS_Range-wide_IBat_%26_NLEB_Survey_Guidelines_2022.03.29.pdf). If the area contains suitable habitat, the Licensees should consult with the Service and VDWR regarding any proposed tree cutting activities.	Most of the upland area within the Project boundary is located around the Project dam, forebay, access road and powerhouse areas, as the Project boundary follows the shoreline elevation of the reservoir. Tree removal is not conducted at the Project as part of normal vegetation management and operation practices. Therefore, the co-Licensees do not believe a northern long-eared bat management plan is necessary at the Project.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
23	VDWR	June 29, 2022	We worked closely with the North Carolina Wildlife Resources Commission (NCWRC) and the US Fish and Wildlife Service (USFWS) on review of the DLA and Study Reports and discussed with them development of the June 24, 2022 letter the USFWS submitted to you. As such, we concur with the contents of that letter and recommend adherence to the guidance and recommendations contained within. Specifically, we support the additional study requests outlined in the letter as the data provided by the applicant so far are insufficient to support impact assessments. Until the additional studies have been performed and we and our conservation partners have had the opportunity to review the results, we cannot make any determinations regarding what, if any, adverse impacts upon wildlife and resources under our jurisdiction may result from operation of the project as it is currently proposed.	See responses to Comments Nos. 1 thru 22 that address NCWRC and USFWS guidance and recommendations.
24	VDCR	June 29, 2022	DCR has reviewed the mussel survey and the Roanoke logperch habitat assessment for the Schoolfield Hydroelectric Project. According to the survey results, there were no rare mussels or fish documented within the project area. Therefore, DCR does not have any additional comments and defers to our colleagues at the Virginia Department of Wildlife Resources and the United States Fish and Wildlife Service for any additional/final recommendations regarding potential aquatic resource impacts from the proposed license reissuance.	Comment noted.
25	VDCR	June 29, 2022	There are no State Natural Area Preserves under DCR's jurisdiction in the project vicinity. Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the DCR, DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.	Comment noted. Comment noted.
26	FERC	July 13, 2022	The DLA does not contain a Supporting Design Report (SDR), as required by sections 4.61(e) and 4.41(g)(3) of the Commission's regulations. In Exhibit F of the DLA, the co-Licensees state that the upcoming First Independent Consultant's Safety Inspection report, Potential Failure Modes Analysis report, and Supporting Technical Information document report associated with the Commission's reclassification of the project as a "significant" hazard (all due December 31, 2022) will fulfill the requirements and intent of section 4.41(g)(3) of the Commission's regulations. Although this statement is not an explicit request for a waiver of the requirement that Exhibit F contain an SDR, the statement implies that the co-Licensees do not intend to file an SDR with the final license application (FLA). While we understand that the project is subject to the Commission's Part 12 requirements on an on-going basis, an SDR is a standard requirement in accordance with sections 4.61(e) and 4.41(g)(3) of the Commission's regulations. Therefore, an SDR must be filed in the licensing docket before the license application can be accepted.	As stated in Exhibit F, the co-Licensees are required to submit 1) The First Independent Consultant's Safety Inspection Report, 2) a Potential Failure Mode Analysis, and 3) a Supporting Technical Information Document before December 31, 2022 as part of their on-going dam safety requirements. Many of the hydrologic and stability analyses contained within these documents are important components of the Supporting Design Report. As such, the co-Licensees intend to develop the aforementioned dam safety reports and the Supporting Design Report concurrently. Accordingly, the co-Licensees intend to file the Supporting Design Report with the Commission on or before the December 31, 2022 deadline for the dam safety reports, so that it will be available to the Commission as it reviews the Final License Application for the Project.
27	FERC	July 13, 2022	Exhibit A: Figure 1.1 of Exhibit A shows the location of the Schoolfield Project dam as well as other dams (including hydroelectric projects) on the Dan River. However, these other dams are not labeled. Please label the additional dams (and any hydroelectric projects) located along the Dan River shown on figure 1.1.	The dams located along the Dan River and its major tributaries have been labelled on Figure 1-1.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
28	FERC	July 13, 2022	Section 1.3.1 of Exhibit A of the DLA states that run-of-river operation may be suspended during reservoir drawdown and refilling for future inspections of the City of Danville’s water supply intakes that are expected to occur infrequently on an as needed basis. However, section 3.2.2 states that these inspections occur every 5 years. Please clarify the frequency that these inspections take place.	Inspections of the City of Danville’s water supply intakes are expected to occur infrequently on an as needed basis. There is no set schedule for these drawdowns. Section 3.2.2 of the FLA has been revised to convey the expected frequency of drawdowns more accurately.
28	FERC	July 13, 2022	Exhibit A does not specify the rated capacity of the turbine units. Therefore, in the final license application (FLA), please indicate the horsepower rating of each turbine, as this will allow staff to determine if the capacity of a generator or a turbine would determine the project’s authorized installed capacity as defined in section 11.1(i) of the Commission’s regulations.	The rated capacity of each of the six identical turbine units is 1,006 horsepower. This information has been added to Exhibit A-Section 1.1
29	FERC	July 13, 2022	Table 1.7-1 provides the average, minimum, and maximum monthly flows of the Dan River at the project. Please also provide monthly median flows at the project.	The monthly median flows at the Project have been added to Table 1.7-1.
30	FERC	July 13, 2022	Section 1.3.1 describes the project’s operation as run-of-river. Please describe how the project is operated during high- and flood-flow conditions. At high flow conditions, river flows are well above the maximum hydraulic capacity of the project while during flood flow conditions, relatively high river flows overtop the natural or artificial banks of a river.	The following description of operations during high and flood-flow conditions has been added to Section 1.3.1. During high flow conditions, when flow surpasses approximately 11,500 to 12,000 cfs the tailwater becomes too high and the turbine units are shut down to avoid damage to the units. In this situation, all flow is passed over the Project spillway. Similarly, during flood conditions, the Project is shut down and flow is passed over the spillway, and during flood conditions operations staff are also dispatched to the Project to monitor operations and conditions.
31	FERC	July 13, 2022	Inconsistent vertical datums are used throughout the DLA. Exhibit A uses mean sea level (msl) to describe the elevations of various project features. Yet, Exhibit G—drawing G-1 in particular—reports elevations based on the National Geodetic Vertical Datum of 1929 (NGVD 29). Therefore, in the FLA, please include an Exhibit A that reports the elevations of all project features in NGVD 29, which is a more modern and prominent vertical datum than msl. In addition, all elevations elsewhere in the FLA should be referenced to NGVD 29.	Within the DLA the datums were used interchangeably. However, all elevations reported in the FLA have been revised to signify usage of NGVD 29.
32	FERC	July 13, 2022	Section 1.8.4 describes the headwall section and six low-level sluice gates. Section 1.3.1 states that the downstream minimum flow is released via a low-level gate near turbine-generating unit 6 when inflow is insufficient to operate the turbine-generating units. Please confirm if this low-level gate is one of the six in the headwall section. In the FLA, please also indicate the maximum amount of flow that can be released through each of the low-level sluice gates at the normal impoundment elevation (with the flashboards in place). This information will assist staff in determining the feasibility of alternative minimum flows that may be recommended for the project.	The gate used to release the minimum flow when the Project is offline is not one of the six in the headwall section. The gate for the minimum flow is one of the retired turbine bay gates as labelled on the Exhibit F-4 drawing. This has been clarified in Section 1.3.1. The maximum amount of flow through each gate at the normal impoundment elevation (with the flashboards in place) has been added to Sections 1.3.1 and 1.8.4.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
33	FERC	July 13, 2022	Exhibit E, Water Resources, Page 6 of the draft study report for the Operations and Inflow Assessment Study states that all inflow up to the maximum hydraulic capacity of the project—2,160 cubic feet per second (cfs)—is typically passed through the powerhouse, minus dam leakage. However, the project’s turbines do not have wicket gate controls and thus have a fixed hydraulic capacity (360 cfs). As such, it appears that spill (up to 359 cfs, depending on project inflows) would be common over the spillway when inflows are less than the project’s maximum hydraulic capacity. For example, when inflows are 1,500 cfs, four units could be run, but spillage of 60 cfs would seem to occur (over the spillway) until inflows are high enough (i.e., 1,800 cfs) to bring an additional (fifth) unit on-line. Therefore, please confirm whether spill occurs at the project when inflows are less than the project’s maximum hydraulic capacity of 2,160 cfs and if so, to what extent.	Spill does occur at the Project when flows are less than the maximum hydraulic capacity of the Project, due to the fixed hydraulic capacity of the turbine units. Up to approximately 359 cfs can be spilled at the Project before enough water is available to bring an additional turbine unit on-line.
34	FERC	July 13, 2022	Exhibit E, Water Resources, Page 20 of Exhibit E states that the project is currently operated in a run-of-river mode and that the impoundment is usually [emphasis added] maintained within 1.5 inches of the spillway crest. In the FLA, please clarify if the co-licensees propose to maintain the impoundment within 1.5 inches of the top of the flashboards; if not, please specify the proposed impoundment elevation band during normal project operation. In addition, please describe how compliance with the proposed mode of operation (run-of-river) and impoundment elevation band would be documented.	<p>During normal operations when all the flashboards are up, the co-Licensees operate units to maintain a water level above 436.00 feet (flashboard crest is 437.7 feet). When flashboards are down, the co-Licensees will operate units to maintain a water level above 434.00 feet (spillway crest is 434.7 feet). When flashboards are being repaired, the co-Licensees will operate down to 433.70 feet to allow for repair or replacement of flashboards.</p> <p>All operations information is recorded and stored every 10 minutes. Water level alarms are set and monitored 24/7. Project operators are on-site 8 hours per day on weekdays and conduct morning and evening checks on the weekends. An alarm system will notify Project operators of issues when they are not on site. During high flow flood events Project operators are on-site 24 hours per day.</p>
35	FERC	July 13, 2022	Exhibit E, Aquatic and Fisheries Resources. Pages 79 and 120 of Exhibit E state that, in response to a final study plan that was provided to the resource agencies, the U.S. Fish and Wildlife Service (FWS) provided Eagle Creek Schoolfield, LLC with comments regarding the need for additional fish surveys and the proposed Roanoke logperch survey and habitat assessment. Exhibit E further states that a copy of FWS’s comment letter and the co-licensees’ responses to the letter are provided as a ‘supplement’ to the final study plan in the DLA. However, the DLA does not appear to contain the comment letter or any responses to that letter. Therefore, please include, in the consultation record of the FLA, a copy of FWS’s comment letter and the co-licensees’ responses to the letter.	The full consultation record has been included in Appendix A to Exhibit E of the FLA, including the items noted in the FERC staff comment.
36	FERC	July 13, 2022	Exhibit E, Aquatic and Fisheries Resources. The downstream sampling area for Roanoke logperch shown in figure 4.2.1-1 of the draft study report for the Roanoke logperch assessment is considerably larger (reach length greater than 1 mile) than the downstream sampling area depicted in Figure 4.2.3-1 (reach length less than 300 feet). In the FLA, please clarify this discrepancy and provide revised figures that accurately depict the downstream sampling area for Roanoke logperch.	The downstream sampling area was accurately depicted in Figure 4.2.3-1 of the study report. Figure 4.2.1-1 has been revised in the study report to also reflect this same sampling area.
37	FERC	July 13, 2022	Page 18 of the draft study report for the Roanoke logperch assessment states that the water depths sampled downstream of the project dam—for the habitat assessment component of the study—ranged from 21 “centimeters per second” (cm/s) to 86 cm/s, with a mean of 44.3 cm/s. Please confirm this is a typo and that the units for these depth values should instead be “centimeters.”	This typo has been corrected and the units for the depth values are centimeters.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
38	FERC	July 13, 2022	Section 5.2.2 of the draft study report for the Freshwater Mussel Survey states that a river-wide mussel survey (throughout the Dan River) was previously conducted in 2014. However, it is unclear whether that survey included any sampling sites in the project area. Therefore, in the FLA, please include a study report that indicates if any of the sites sampled during the 2014 survey were in the vicinity of the project; if so, provide the results from those sites, including the number (and species) of mussels collected along with any shell lengths, collection depths, and effort data.	The two closest sampling sites from the 2014 mussel study were located approximately 3 miles upstream of the upper extent of the proposed Project boundary and approximately 4 miles downstream of the Project dam, respectively. This information has been added to the Freshwater Mussel Survey report, and the 2014 study (Alderman Environmental Services, Inc. 2014. Dan River Mapping, Habitat Assessments, and Mussel Surveys. 26 November 2014. 142 pp) has been included as an appendix to the co-Licensee's mussel study report. The 2014 report provides relevant data from the aforementioned sites, as well as other sampling sites along the Dan River.
39	FERC	July 13, 2022	Section 5.2.3 of the draft study report for the Freshwater Mussel Survey states that the qualitative (presence/absence) mussel surveys conducted at the project occurred in shoreline waters "no deeper than 15 feet" and consisted of tactile and visual examination of the substrate. In the study report (see item 13 above), please specify the actual depth and elevation range that were surveyed at each sampling site in the project impoundment, as well as the depths and elevations at which each live freshwater mussel was collected, to the extent that actual depths and elevations were recorded.	Water depths along entire sampling transects were not recorded. However, all live mussels that were discovered were in less than 3 feet of water. This information was added to the study report.
40	FERC	July 13, 2022	Section 5.2.3 of the draft study report for the Freshwater Mussel Survey states that the total (shell) lengths of the first 100 live mussels of each species encountered were measured. However, no shell lengths are provided in the draft study report. Therefore, in the study report to be filed with the FLA, please provide the shell lengths of the five live mussels that were collected during the mussel surveys.	The shell length for variable spike (<i>Elliptio icterina</i>) was 92 mm. For Eastern elliptio (<i>Elliptio complanate</i>) 3 of the 4 live mussels caught for that species were measured. Their shell lengths were 59, 66, and 82 mm. This information was added to the study report.
41	FERC	July 13, 2022	Terrestrial Resources, Page 112 of Exhibit E discusses occasional drawdowns of the impoundment that are conducted for maintenance purposes. The DLA further states that any impacts associated with such drawdowns would be minor and short in duration. To the best extent possible, please specify the expected magnitude, timing, frequency, and duration of such drawdowns so that staff can evaluate the potential effects of maintenance drawdowns on wetland and associated terrestrial resources.	Drawdowns are expected to occur infrequently on an as needed basis. The duration of drawdowns is expected to be less than 24 hours. The most recent reservoir drawdown was down to elevation 423.12 feet. The co-Licensees are proposing to restrict drawdowns to the November 1 to February 28 period.
42	FERC	July 13, 2022	Terrestrial Resources, Page 103 of Exhibit E states that only two invasive species were documented within Pittsylvania County and that both species were aquatic plants—neither of which is known to occur within the project boundary. However, an invasive species review conducted by staff using iNaturalist (www.inaturalist.org) indicates that over 100 invasive species occur within Pittsylvania County. Therefore, please explain if the finding that only two species occur within Pittsylvania County refers specifically to aquatic invasive species or if it also includes terrestrial species. If it only includes aquatic species, please also assess terrestrial species as the project includes riparian and upland habitat as well as aquatic habitat. Additionally, please explain if the finding of only two invasive species in Pittsylvania County includes only plants or also includes other relevant taxa such as fishes and mollusks? If it only includes plants, please include other relevant taxa in assessing what invasive species may occur at the project.	The finding that only two invasive species occur within Pittsylvania County was based on the Early Detection and Distribution Mapping System database and refers specifically to aquatic invasive plant species. This did not include other taxa. Section 6.1 of the FLA has been updated with a discussion of aquatic and terrestrial plant species, as well as relevant taxa that occur in Pittsylvania County based on all taxa contained in the Early Detection and Distribution Mapping System database that were identified within Pittsylvania County.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
43	FERC	July 13, 2022	Terrestrial Resources, Page 105 of Exhibit E states that there are three wetland types within the current project boundary: 878.1 acres of riverine habitat, 37.8 acres of freshwater forested/shrub habitat, and 1.9 acres of freshwater emergent habitat. However, Table 7-1 appears to summarize the same information with considerably less area: 233.2 acres, 6.6 acres, and 1.8 acres, respectively. Similarly, page 105 states that there are 198.5 acres of riverine habitat in the proposed project boundary whereas Table 7-1 presents that same total as 194.8 acres. Therefore, please reconcile any discrepancies between the acreage totals in the text on page 105 and the totals presented in Table 7-1. Additionally, please provide enlarged mapping of any non-riverine wetlands in the current and proposed project boundaries so that staff can better visualize the extent of those areas and compare proposed changes to the project boundary as the existing scale in Figure 7-1 is too coarse to do so.	The text describing wetland types within the Project boundary has been revised to reflect the acreage totals shown in Table 7-1. Enlarged mapping (Maps 1 thru 5) have been added to Figure 7-1 to show wetlands in relation to the current and proposed Project boundary in more detail.
44	FERC	July 13, 2022	Terrestrial Resources, Figure 7-1 on page 107 of Exhibit E shows two ponded areas as being included within the proposed project boundary just south of the roadway intersection of Covington Court and Shoreham Drive. Most of the approximately 6-acre area contained within these ponds does not appear to be included in the National Wetland Inventory. Please explain if the full extent of these ponds is included as wetland acreage within the summary totals of the DLA. If not, please explain why they are not included as recognized wetlands within the DLA.	The two ponded areas were not included in Table 7-1 in their entirety, only the acreage associated with the area officially designated as freshwater emergent wetland (see Map 2 of Figure 7-1) was included in Table 7-1. The co-Licensees did not include the remaining area of the ponds as the NWI wetlands mapping did not officially designate them as a particular wetland type. The total area of the ponds, excluding the freshwater emergent area, is approximately 7 acres. Both ponds are included within the proposed Project boundary.
45	FERC	July 13, 2022	Terrestrial Resources, Page 120 of Exhibit E states that there are no state-listed species in the project vicinity based on the Virginia Natural Heritage Program's (Virginia NHP) data explorer tool. However, page 4-63 of the Pre-Application Document (PAD) includes results from another query using the Virginia Fish and Wildlife Information Service (Virginia FWIS) that identifies six state-listed species as having the potential to occur at the project, including several bat species as well as loggerhead shrike and timber rattlesnake. Additionally, a staff query of the Virginia FWIS database indicated the potential for scarlet kingsnake, a state-listed species of concern, to also occur in the vicinity of the project. Therefore, please confirm if there was any written correspondence with Virginia NHP regarding the project. If so, please file any such correspondence(s) with the FLA. If not, please consult with Virginia NHP to confirm the results of the data explorer findings and address any disparities with the Virginia FWIS results and please file any such correspondence(s) with the FLA.	The co-Licensees received a letter dated, June 29, 2022, from the Virginia Department of Conservation and Recreation (VDNR), which administers the Natural Heritage Program. The letter indicated that there are no State Natural Area Preserves in the Project vicinity, and that no state-listed plants or insects will be impacted by the Project activity. This letter is included in Appendix A to Exhibit E of the FLA. Within the letter, VDNR stated the Virginia FWIS database should be consulted for locations of threatened and endangered wildlife species that may occur in the area. The co-Licensees accessed this database and have included in the FLA a discussion of the database results.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
46	FERC	July 13, 2022	<p>Terrestrial Resources, Page 125 of Exhibit E briefly references vegetation maintenance activities regarding monarch butterfly, a current candidate for federal listing and a species that relies on milkweed over multiple life stages. Further, the DLA states that existing mowing practices along the powerhouse access road have prevented milkweed from becoming established. So that staff can better analyze potential project effects on this species, please explain if additional vegetation management and operation practices may be required in other areas where milkweed is present, including project facilities and any other part(s) of the proposed project boundary where vegetation management may be warranted at any point during the term of any new license issued for the project. If so, please describe the timing and frequency of any such activities.</p>	<p>Most of the upland area within the Project boundary is located around the Project dam, forebay, access road and powerhouse areas, as the Project boundary follows the shoreline elevation of the reservoir.</p> <p>Existing vegetation management activities at the Project include mowing, which occurs approximately every week, in grassy areas within the Schoolfield parcel along the access road to the powerhouse and forebay area, as well as near the substation, which is located just downstream of the powerhouse. Mowing typically occurs in the months of April through October.</p> <p>Vegetation on the northerly Project dam abutment and within sediment filled areas adjacent to and within the forebay are treated with an environmentally safe, aquatic-friendly herbicide, typically twice a year (once in spring and once in fall).</p>
47	FERC	July 13, 2022	<p>Rare, Threatened and Endangered Species,. Pages 115 and 125 of Exhibit E discuss the federally threatened northern long-eared bat (NLEB) and information on distributions in Virginia and North Carolina that led the co-licensees to determine that the species is not known to occur in Pittsylvania County or the vicinity of the project and, therefore, would not be affected by the project. However, NLEB is listed as having the potential to occur at the project based on an FWS Information for Planning and Consultation (IPaC) report filed with the PAD (2019) and an updated report as referenced in the DLA from September 28, 2021. Moreover, in a letter filed November 15, 2019 commenting on the PAD, FWS states that the NLEB can occur throughout the state in the summer, roost in tree cavities and under bark, and be impacted by activities that require tree removal. Therefore, please describe all routine vegetation management and operation practices—including timing and frequency of any regularly scheduled practices and tree removal—that would be performed within the project boundary that could affect NLEB. Additionally, please ensure that the September 2021 IPaC report is filed with the FLA.</p>	<p>See response to Comment No. 46 for a description of vegetation management and operation practices.</p> <p>Tree removal is not conducted at the Project as part of normal vegetation management and operation practices.</p> <p>The September 2021 IPaC report could not be located, therefore, the co-Licensees completed another IPaC report (July 2022) using the proposed Project boundary area. That report is included Appendix A to Exhibit E of the FLA. The report identified northern long-eared bat, Atlantic pigtoe, and monarch butterfly as having potential to occur at the Project.</p>
48	FERC	July 13, 2022	<p>Historical, Cultural, and Tribal Resources, Section 9 of Exhibit E provides a brief description of historic project facilities but does not provide a discussion of pre-European contact historical background or the archeological context of the region. So that staff can describe the affected environment and analyze potential impacts to cultural and Tribal resources, please provide a description of the pre-European contact historical background and archeological resources within the region.</p>	<p>A brief description of the pre-Contact history of the Project area has been included in Section 9.1 of the FLA.</p>

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
49	FERC	July 13, 2022	Section 9.2 of Exhibit E states that the Schoolfield dam is listed as an historic site in the Virginia Cultural Resource Information System (VCRIS). In the FLA, please clarify if the dam has been evaluated and is eligible for listing in the National Register of Historic Places (NRHP). If it is eligible, or has not been evaluated, for listing on the NRHP, please describe any potential effects continued project operation and management would have on the dam. Please also clarify if the powerhouse is included in the VCRIS or NRHP listing and, if not, why?	<p>The dam and powerhouse were evaluated as part of the NRHP listing of the Schoolfield Historic District. Both the dam and powerhouse were found to be contributing resources to the Schoolfield Historic District which was listed on the National Register of Historic Places on December 3, 2020 (https://www.dhr.virginia.gov/wp-content/uploads/2020/09/108-5065_Schoolfield_HD_2020_NRHP_FINAL.pdf). A discussion of the potential effects of continued Project operation and management on the dam and powerhouse have been included in the FLA.</p> <p>The powerhouse is included in the VCRIS and NRHP listing.</p>
50	FERC	July 13, 2022	Section 9.2 of Exhibit E states that the Schoolfield Project is within the Schoolfield Historic District, which is listed on the National Register of Historic Places. Please describe any effects continued project operation and management will have on the historic district.	A discussion of the Project's effects on the Schoolfield Historic District have been included in the FLA.
51	FERC	July 13, 2022	Section 9.2 of Exhibit E states that the licensee consulted the Virginia Department of Historic Resources (VDHR) Electronic Project Information Exchange (ePIX) system, but does not provide a record of consultation with the Virginia State Historic Preservation Office (SHPO) providing concurrence on the Area of Potential Effect (APE) and the determination that there are no impacts to cultural resources as stated in Section 9.5 of Exhibit E. Please consult with the Virginia SHPO for concurrence on the APE and finding of no impacts to cultural resources.	<p>The co-Licensees have requested section 106 consultation and submitted a review package to VDHR on July 14, 2022 (VDHR File No. 2022-4384) via their Electronic Project Information Exchange (ePIX) system (https://epix.dhr.virginia.gov/) to fulfill the consultation requirements of Section 106 of the National Historic Preservation Act of 1966. Included in Appendix A to this Exhibit E is an e-mail confirmation that VDHR received the co-Licensees request for consultation and review package. At present, the co-Licensees have not received a response from VDHR. Documentation of VDHR's determination regarding the Project's consistency, as proposed, with the National Historic Preservation Act will be filed with the Commission promptly after receipt.</p>
52	FERC	July 13, 2022	Section 10.1 of Exhibit E states that the Dan River Water Trail is a state-designated river trail system that goes through the project boundary. In the FLA, please include any available user data for this trail, such as how many people use the trail.	The co-Licensees conducted research but were unable to locate any recreation user data for the Dan River Water Trail.
53	FERC	July 13, 2022	Section 10.2.2 of Exhibit E states that Abreu-Grogan Park, a non-project recreation site owned by the City of Danville that provides boating access to project waters, is most utilized between May and October, with "approximately 500-600 people in attendance for various programs." Please clarify how this attendance number was determined and whether this number is attendance per month or over the entire May-October period. So that staff can analyze whether there is sufficient access to the project's recreation opportunities, please also clarify the operational hours of the park, whether the park and facilities are open to the public year-round, or only May-October, and what entity is responsible for park operation and maintenance.	<p>The Park is open year-round, sunrise to sunset. There are seasonal programs and rentals through the warmer months, with varying schedules. Currently there are canoe, kayak, and standup paddle board rentals from Memorial Day to Labor Day on Saturdays from 11 a.m. to 7 p.m. The 500-600 usage estimate was related to participants in the seasonal programs offered by the Park but does not include general usage of the Park by other users.</p> <p>The City of Danville Parks and Recreation Department is responsible for park operation and maintenance.</p>

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
54	FERC	July 13, 2022	In section 10.2.2 of Exhibit E, a hyperlink to “Appendix A- Abreu Grogan Park Amenity Summary” is provided, and while the link appears to go to the correct website, the link to the Abreu Grogan Park Improvements page does not work. Please provide an updated link or include the information contained in the “Improvements” page in the FLA.	An updated link to the report containing Appendix A- Abreu Grogan Park Amenity Summary has been provided in the FLA and here as well https://www.google.com/url?sa=t&ret=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwj1ion4lvn4AhXAkIkEHQ6-BjUQFnoECA4QAQ&url=https%3A%2F%2Fwww.cerc.usgs.gov%2Forda_docs%2FDocHandler.ashx%3Ftask%3Dget%26ID%3D5538&usg=AOvVaw2vYSyIqqpNmNe2WD1Z0SjA .
55	FERC	July 13, 2022	So that staff can analyze the need for public access and recreation facilities at the project, in the FLA, please provide a discussion of recreation needs identified in the current State Comprehensive Outdoor Recreation Plan, other applicable plans on file with the Commission, or other relevant local, state, or regional conservation and recreation plans; and a determination of whether any identified needs can be accommodated by existing facilities or by additional recreational facilities at the project.	Section 10.1.1 has been added to the FLA describing recreation needs in current recreation plans, and whether any identified needs can be accommodated by existing or additional facilities at the Project.

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

56	FERC	July 13, 2022	<p>Environmental Justice, Executive Order 14008, Tackling the Climate Crisis at Home and Abroad,⁴ and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations,⁵ as amended, require federal agencies to consider if impacts on human health or the environment would be disproportionately high and adverse for environmental justice (EJ) communities in the surrounding community resulting from the programs, policies, or activities of federal agencies. To assist Commission staff with its analysis under the National Environmental Policy Act (NEPA), please provide the following:</p> <p>a) A table of racial, ethnic, and poverty statistics for each state, county, and census block group within the geographic scope of analysis. In this case, the geographic scope of analysis is areas within [one mile for no/minimal construction and up to 5 miles for major construction] of the [existing or proposed, whichever is larger] project boundary. The table should include the following information from the U.S. Census Bureau’s most recently available American Community Survey 5-year Estimates for each state, county, and block group (wholly or partially) within the geographic scope of analysis:</p> <ul style="list-style-type: none"> i. Total population; ii. Total population of each racial and ethnic group (i.e., White Alone Not Hispanic, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, some other race, two or more races, Hispanic or Latino origin [of any race]) (count for each group); iii. Minority population including individuals of Hispanic or Latino origin as a percentage of total population; and iv. Total population below poverty level as a percentage <p>The data should be collected from the most recent American Community Survey files available, using table #B03002 for race and ethnicity data and table #B17017 for low-income households. A template table is provided below.</p> <p>b) Identification of environmental justice populations by block group, using the data obtained in response to part a above, by applying the following methods included in EPA’s Promising Practices for EJ Methodologies in NEPA Reviews (2016).⁸</p> <ul style="list-style-type: none"> i. To identify environmental justice communities based on the presence of minority populations, use the “50 percent” and the “meaningfully greater” analysis methods. To use the “50 percent” analysis method, determine whether the total percent minority population of any block group in the affected area exceeds 50 percent. To use the “meaningfully greater” analysis determine whether any affected block group affected is 10 percent greater than the minority population percent in the county using the following process: <ul style="list-style-type: none"> 1. Calculate the percent minority in the reference population (county) 2. To the reference population’s percent minority, add 10 percent (i.e., multiply the percent minority in the reference population by 1.1) 3. This new percentage is the threshold that a block group’s percent minority would need to exceed to qualify as an environmental justice community under the meaningfully greater analysis method. ii. To identify environmental justice communities based on the presence of low-income populations, use the “low-income threshold criteria” method. To use the “low income threshold criteria,” the percent of the population below the poverty level in the identified block group must be equal to or greater than that of the reference population (county). <p>c) A map showing the project boundary and location(s) of any project-related construction in</p>	<p>Section 13.0 has been added to the FLA discussing environmental justice communities in the Project area and any associated Project related impacts on those communities.</p>
----	------	---------------	--	---

Schoolfield Hydroelectric Project (FERC No. 2411)
DRAFT LICENSE APPLICATION COMMENT RESPONSE SUMMARY

Comment Number	Commenter	Date of Comment Letter	Comment	Comment Response
			<p>relation to any identified environmental justice communities within the geographic scope. Denote on the map if the block group is identified as an environmental justice community based on the presence of minority population, low-income population, or both.</p> <p>d) A discussion of anticipated project-related impacts on any environmental justice communities for all resources where there is a potential nexus between the effect and the environmental justice community. Examples of resource impacts may include, but are not necessarily limited to, project-related effects on: erosion or sedimentation of private properties; groundwater or other drinking water sources; subsistence fishing, hunting, or plant gathering; access for recreation; housing or industries of importance to environmental justice communities; and construction-or operation-related air quality, noise, and traffic. For any identified effects, please also describe whether or not any of the effects would be disproportionately high and adverse.</p> <p>e) If environmental justice communities are present, please provide a description of your public outreach efforts regarding your project, including:</p> <ul style="list-style-type: none"> i. a summary of any outreach to environmental justice communities conducted prior to filing the application (include the date, time, and location of any public meetings beyond those required by the regulations); ii. a summary of comments received from members of environmental justice communities or organizations representing the communities; iii. a description of information provided to environmental justice communities; and iv. planned future outreach activities and methods specific to working with the identified communities. <p>f) A description of any mitigation measures proposed to avoid and/or minimize project effects on environmental justice communities.</p> <p>g) Identification of any non-English speaking groups, within the geographic scope of analysis, that would be affected by the project (regardless of whether the group is part of an identified environmental justice community). Please describe your previous or planned efforts to identify and communicate with non-English speaking groups and identify and describe any measures that you propose to avoid and minimize any project-related effects on these communities.</p>	