Appendix C

Consultations

Carol Wasserman <carol@nehydropower.com>

Guidance

6 messages

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 1:35 PM
To: Melissa Grader <Melissa_Grader@fws.gov>

Hi, Melissa. I am writing because I would like to get the Service's insight concerning fish passage using the Voith Streamdiver turbine. We have run into a flooding issue at our Ashton Hydroelectric Project. The ASTs will raise the flood profile in a way we cannot engineer around.

We are going to have to modify our license application. In the interim, I am trying to identify the best fish passage approaches using these turbines. I have attached some background here.

Patrick and I have gotten rather proficient with the AST, but this is a new technology to us. I have reviewed a proposed 10-turbine facility at Notre Dame (FERC # 7569) but there are no existing studies. Notre Dame will need to perform them once the facility begins generation.

Any guidance you could point me to would be very helpful.

Thanks.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

StreamDiver.pdf
383K

Grader, Melissa <melissa_grader@fws.gov> Tue, Jan 14, 2020 at 1:49 PM
To: Carol Wasserman <carol@nehydropower.com>

Hi Carol,

I'm not familiar with that turbine type. I'm consulting with our hydraulic engineers and will get back to you soon.

Melissa Grader
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service - New England Field Office
103 East Plumtree Road
Sunderland, MA 01375
413-548-8002 x8124
melissa_grader@fws.gov

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Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 1:52 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>

Thank you so much. I really need to understand this equipment in order to prepare a credible impact analysis and proposed requirements. The best way to do that is to go to the people who really do understand fish passage. I appreciate it.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Grader, Melissa <melissa_grader@fws.gov> Tue, Jan 14, 2020 at 2:53 PM
To: Carol Wasserman <carol@nehydropower.com>

Carol, This is the response one of our hydraulic engineers sent me:

> StreamDiver is essentially the next generation of bulb turbine (i.e., generator/turbine unit is in one integrated housing that is submerged). So like a bulb, you (typically) eliminate the need for scroll cases and an above water generator (i.e., PH can be small). All else being equal, it might be marginally safer to fish because there are no wickets (I think) or scroll case. But it still has stay vanes and a turbine blade. And fish mortality is largely due to rpm, blade diameter, and blade shape. I'm not aware of any biological tests that have been performed on the StreamDiver... but I haven't looked.

So, this does not seem like a technology that would qualify as "fish friendly"... I sat in on a webinar last September where Natel Energy went over a new fish friendly turbine they have been working on. You may want to check that out: natelenergy.com/turbines (the Restoration Hydro Turbine).

If the issue with the AST is loss of flood flow capacity, couldn't you modify the dam to add in additional spill capacity to compensate?

Melissa Grader
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service - New England Field Office
103 East Plumtree Road
Sunderland, MA 01375
413-548-8002 x8124
melissa_grader@fws.gov

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[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 2:58 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>

Thank you for responding so quickly. It is not a loss of flood flow capacity. As designed, the ASTs result in increasing flood height by about 3.18 inches. We have tried to revise around that, but it cannot be resolved using this configuration without risking the stability of the dam.

I am going to go to the Natel site you suggested, but I think this is going to be a difficult decision. Again, thank you for your help.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 3:59 PM
To: Patrick Wendt <Patrick@nehydropower.com>

fyi

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

13 April 2021

Via email: melissa_grader@fws.gov

Melissa Grader
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service - New England Field Office
103 East Plumtree Road
Sunderland, MA 01375

Dear Ms. Grader:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric project (the Project) to be located on the Blackstone River at the Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests your input on the Project as redesigned, with regards to fish and wildlife.

Due to concerns expressed earlier by the Rhode Island Department of Environmental Management (RI DEM) regarding flood impacts, as well as access and construction space constraints, the Project has been redesigned. The previous design of the proposed Project included the dredging of a filled, former power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

The current design is for the installation of four StreamDiver unregulated, fully submersible Kaplan-style turbines that will be located in the River beneath the surface of the water. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. A drop gate to replace the gating structure washed out in the 2010 flood will be reconstructed along the lower-level spillway's crest to allow for the appropriate flow through the submerged turbines and return a veil flow of water to the main dam crest. This new design will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

Table 1: Comparison of Previous and Currently Proposed Design Details

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Steel Archimedes Screw Turbine (3)	Length: 20.4 ft Diameter: 13.5 ft	StreamDiver submerged Kaplan turbines (4)	Length: 13.39 ft (3 large units) 10.61 ft (1 small unit) Diameter: 7.73 ft (3 large units) 5.98 ft (1 small unit)

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Concrete Penstock	Number: 3 Length: 30 ft Width: 15 ft Depth: 12 ft	Concrete Penstock	Number: 2 Length: 43.85 ft Width: 22.15 ft Depth: 19.2 ft
Concrete Tailrace	Number: 3 Length: 120 ft Width: 42 ft	Concrete Tailrace	Number: 1 Length: 11.5 ft Width: 44.3 ft
Steel Trash Rack	Number: 3 Height: 12 ft Width: 15 ft Spacing: 9 in	Steel Trash Rack	Number: 2 Length: Approx. 41ft Width: Approx. 19.8 ft Spacing: 12-14mm
Steel Sluice Gate at Penstock Intake	Number: 3 Area (each): 120 sq ft Height: 8 ft Width: 15 ft	No Steel Sluice Gate at Penstock Intake	N/A
One-story Powerhouse	Height: 18 ft Length: 53 ft Width: 24 ft	One-story Powerhouse	Height: 8 ft Length: 20 ft Width: 8 ft
Safety Fencing around Above-ground Structures	TBD	Safety Fencing around Above-ground Structures	TBD
Single Overhead Transmission Line	800 feet	Single Underground Transmission Line	Approx. 950 ft
Pad-mounted Transformer	1	Pad-mounted Transformer	1

The StreamDiver turbines are small, low impact hydropower turbines which operate in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water.

Downstream fish passage protection measures will include exclusionary trash racks with bar spacing at approximately 12-14mm. Recognizing narrow bar spacing is not a sufficient protection measure, the main focus of excluding fish will be designing the angle of the trash rack to allow a specific flow ratio to encourage fish to pass over the turbines. The precise flow amount and design of the trash racks is still being determined but will allow for a through velocity of approximately 0.5m/s to keep fish moving. In addition, two notches (approximately 2-3 feet wide and 1.5-2 feet deep) will be designed into the drop gate to allow fish to pass over the turbines. Flow through the notches should be around 40cfs but could be increased slightly if this proves to be insufficient[1]. Either of the notches can be closed off if there is low river flow, but one of the notches will always be left open for downstream passage. Below the notches, the concrete structure will be sloped and will remain wetted to allow fish a gentle and safe

[1] There currently is no flow control at the Ashton dam, the sluice gates having been destroyed in the March 2010 storm. NEHC intends to perform a flow study to confirm appropriate flow levels following construction of new flow controls.

return to the river. Upstream fish passage will also be designed, but not constructed, as part of the Project. Eel passage will be designed and constructed as part of the Project.

As the Project is being designed to pass River flows in a run-of-river manner, backflooding should not be an issue. The drop gate to be constructed atop the lower-level spillway will be adjustable and will lay flat to pass flood flows, effectively replicating the conditions that currently exist. With the drop gate in a raised position, a small veil flow of 100cfs is planned to pass over the main spillway, which is no different than conditions would be in moderate flows. Recent inundation mapping by the engineers at Kleinschmidt Associates raised no concerns about the construction of the Project, as designed, altering the existing potential for flooding at the Project site, stating the Inflow Design Flood (IDF) is recommended to be the 100-year flow. And the spillway has the capacity to pass the IDF without overtopping any of the abutment structures.

Figures are attached to show the project location and approximate size compared to the previous design containing the ASTs. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact the undersigned if you have any questions. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

As always, thank you for your attention and assistance..

Carol Wasserman

Carol Wasserman
Principal – Regulatory and Environmental Affairs
New England Hydropower Company, LLC
carol@nehydropower.com

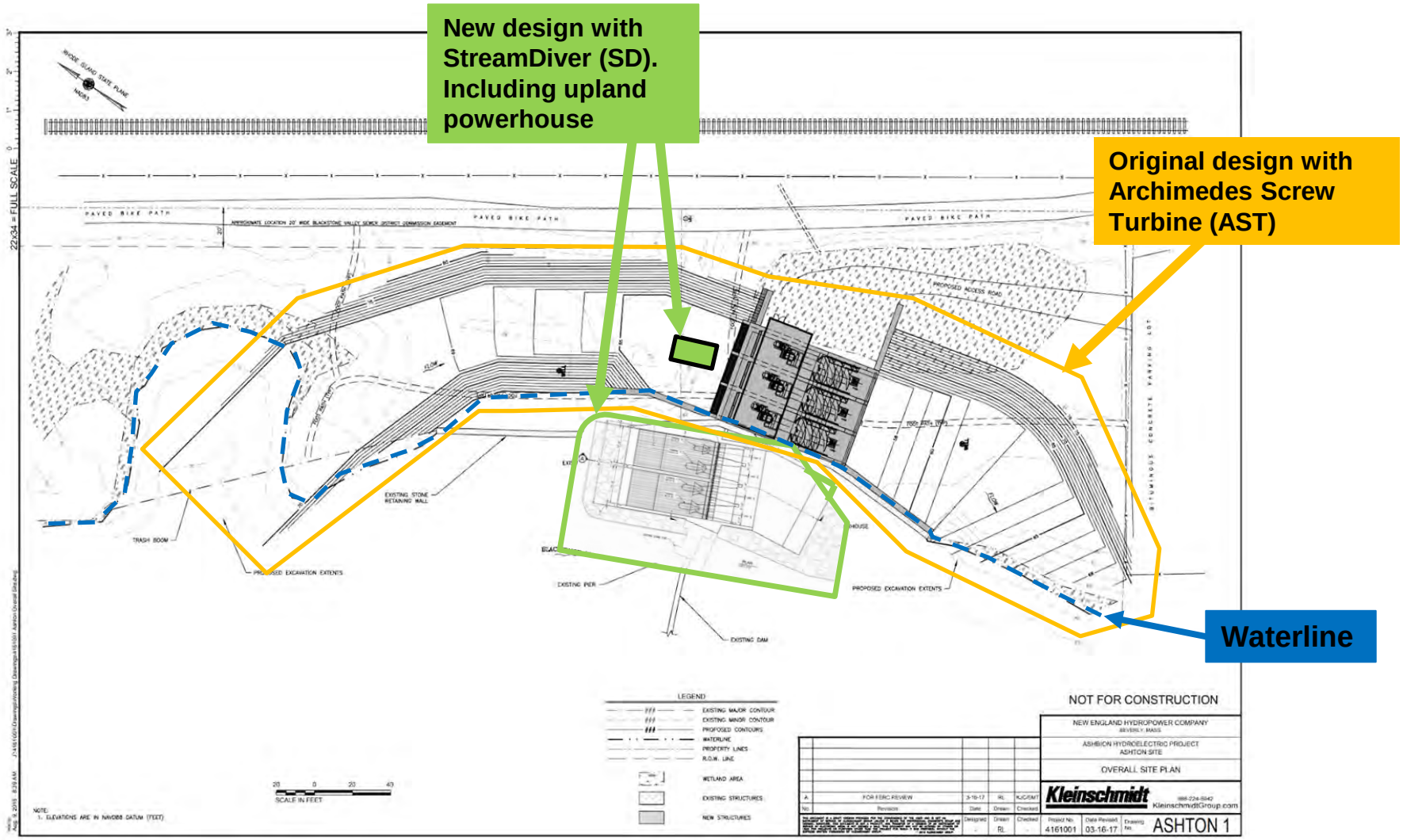
encl.: figures

Ashton Dam, Cumberland, RI
FERC No.P-14634

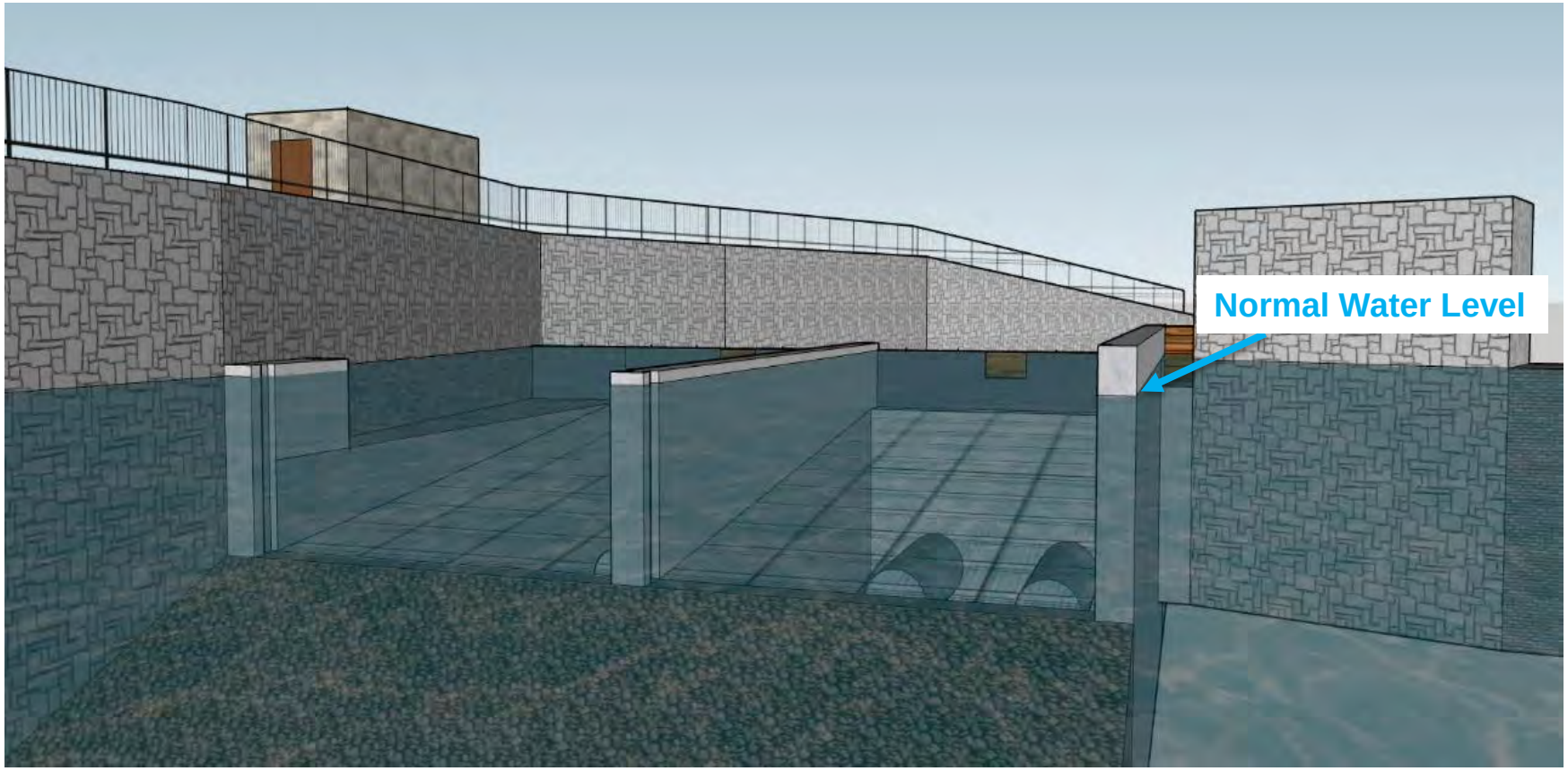
Ashton Dam, Cumberland, RI
FERC No.P-14634

Project installation location

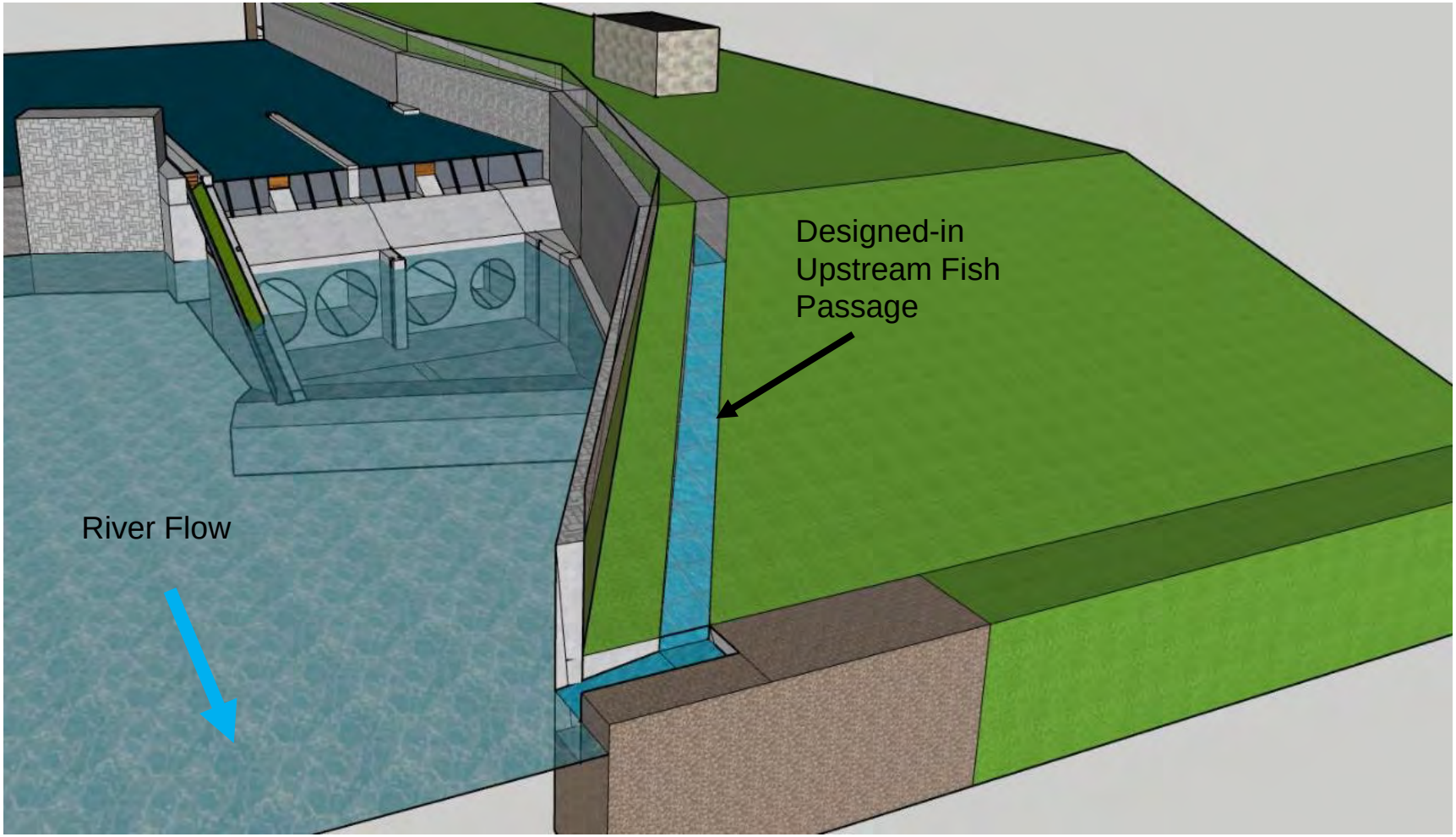
AST/SD Project Footprint Comparison



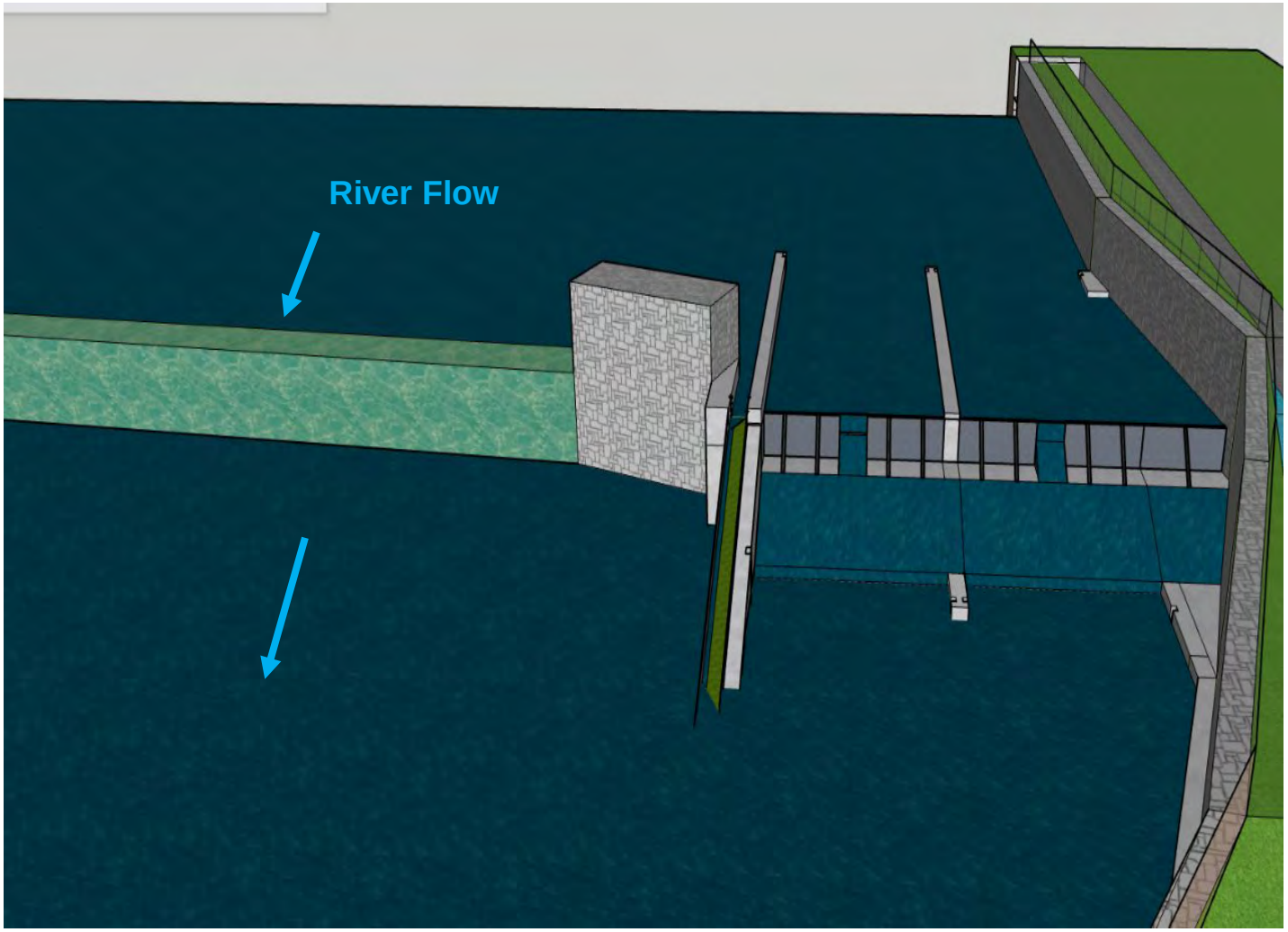
Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Upstream (for illustrative purposes only- not to scale)



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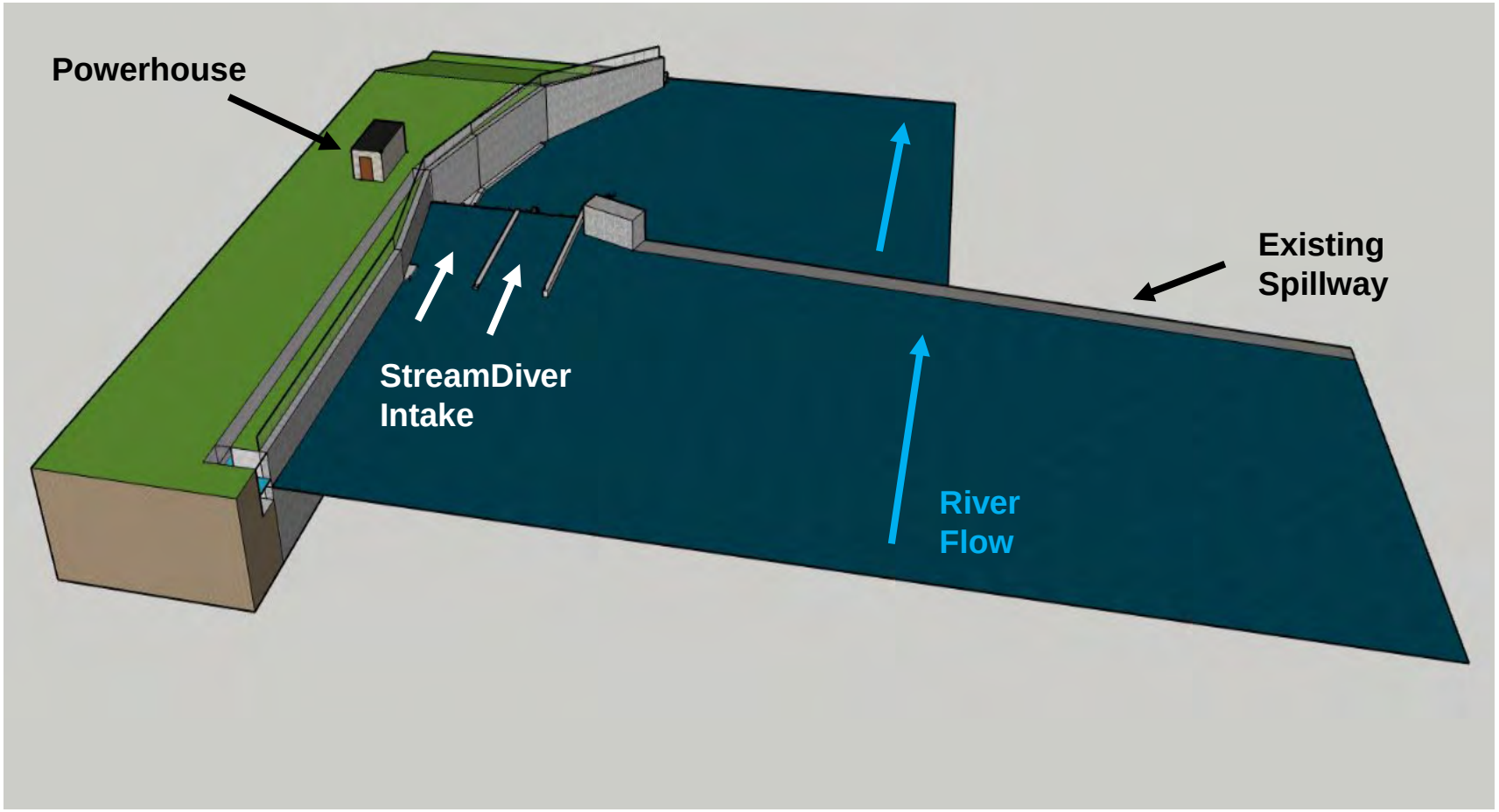

13 April 2021

Via email: chuck.horbert@dem.ri.gov
Charles Horbert
Wetlands Supervisor
RI DEM
235 Promenade Street
Providence, RI 02908

Via email: terry.gray@dem.ri.gov
Terrence Gray
Deputy Director for Environmental Protection
RI DEM
235 Promenade Street
Providence, RI 02908

Dear Mr. Horbert and Mr. Gray:

New England Hydropower Company, LLC (NEHC) appreciates the comments submitted on the License Application for the Ashton Dam Hydroelectric Project. The responses to the comments are being included in the next submission to the Federal Energy Regulatory Commission.

In the meantime, this document has been drafted to provide your office with additional information on the current plan, as well as to solicit any additional comments we might discuss in a pre-application technical meeting we hope to set up shortly.

Due to concerns expressed earlier by your office regarding flood impacts, as well as access and construction space constraints, the Project has been redesigned. The previous design of the proposed Ashton Dam Hydroelectric Project included the dredging of a filled, former power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

The current design is for the installation of four StreamDiver unregulated, fully submersible Kaplan-style turbines that will be located in the River beneath the surface of the water. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. A drop gate to replace the gating structure washed out in the 2010 flood will be reconstructed along the lower-level spillway's crest to allow for the appropriate flow through the submerged turbines and return a veil flow of water to the main dam crest. This new design will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

Table 1 below compares some key dimensions and design details of the two technologies.

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The StreamDiver turbine is a small, low impact hydropower turbine which operates in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water.

Downstream fish passage protection measures will include exclusionary trash racks with bar spacing at approximately 12-14mm. Recognizing narrow bar spacing is not a sufficient protection measure, the main focus of excluding fish will be designing the angle of the trash rack to allow a specific flow ratio to keep fish moving over the turbines. The precise flow amount and design of the trash racks is still being determined but will allow for a through velocity of approximately 0.5m/s to keep fish moving. In addition, two notches (approximately 2-3 feet wide and 1.5-2 feet deep) will be designed into the drop gate to allow fish to pass over the turbines. Flow

through the notches should be around 40cfs but could be increased slightly if this proves to be insufficient[1]. Either of the notches can be closed off if there is low river flow, but one of the notches will always be left open, for downstream passage. Below the notches, the concrete structure will be sloped and will remain wetted to allow fish a gentle and safe return to the river. Upstream fish passage will also be designed, but not constructed, as part of the Project. Eel passage will be designed and constructed as part of the Project.

As the Project is being designed to pass River flows in a run-of-river manner, backflooding should not be an issue. The drop gate to be constructed atop the lower-level spillway will be adjustable and will lay flat to pass flood flows, effectively replicating the conditions that currently exist. With the drop gate in a raised position, a small veil flow of 100cfs is planned to pass over the main spillway, which is no different than conditions would be in moderate flows. Recent inundation mapping by the engineers at Kleinschmidt Associates raised no concerns about the construction of the Project, as designed, altering the existing potential for flooding at the Project site, stating the Inflow Design Flood (IDF) is recommended to be the 100-year flow. And the spillway has the capacity to pass the IDF without overtopping any of the abutment structures.

Further discussion of this topic and how the Applicant is addressing it can be held during a technical meeting.

Figures are attached to show the project location and approximate size compared to the previous design containing the AST. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact the undersigned if you have any questions. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you.

Carol Wasserman

Carol Wasserman
Principal – Regulatory and Environmental Affairs
New England Hydropower Company, LLC
carol@nehydropower.com

encl.: figures

[1] There currently is no flow control at the Ashton dam, the sluice gates having been destroyed in the March 2010 storm. NEHC intends to perform a flow study to confirm appropriate flow levels following construction of new flow controls.

Ashton Dam, Cumberland, RI
FERC No.P-14634

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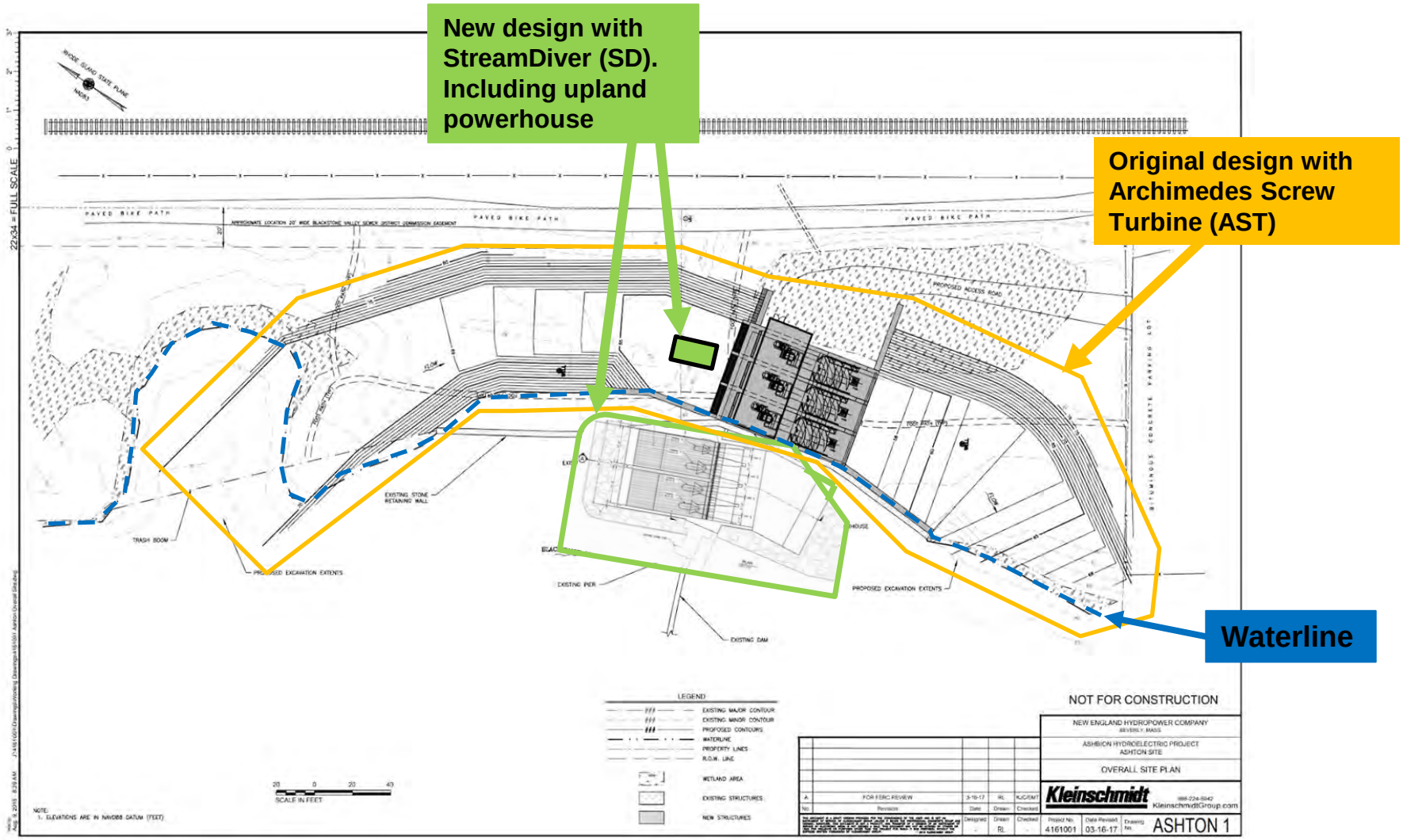
Project installation location

AST/SD Project Footprint Comparison



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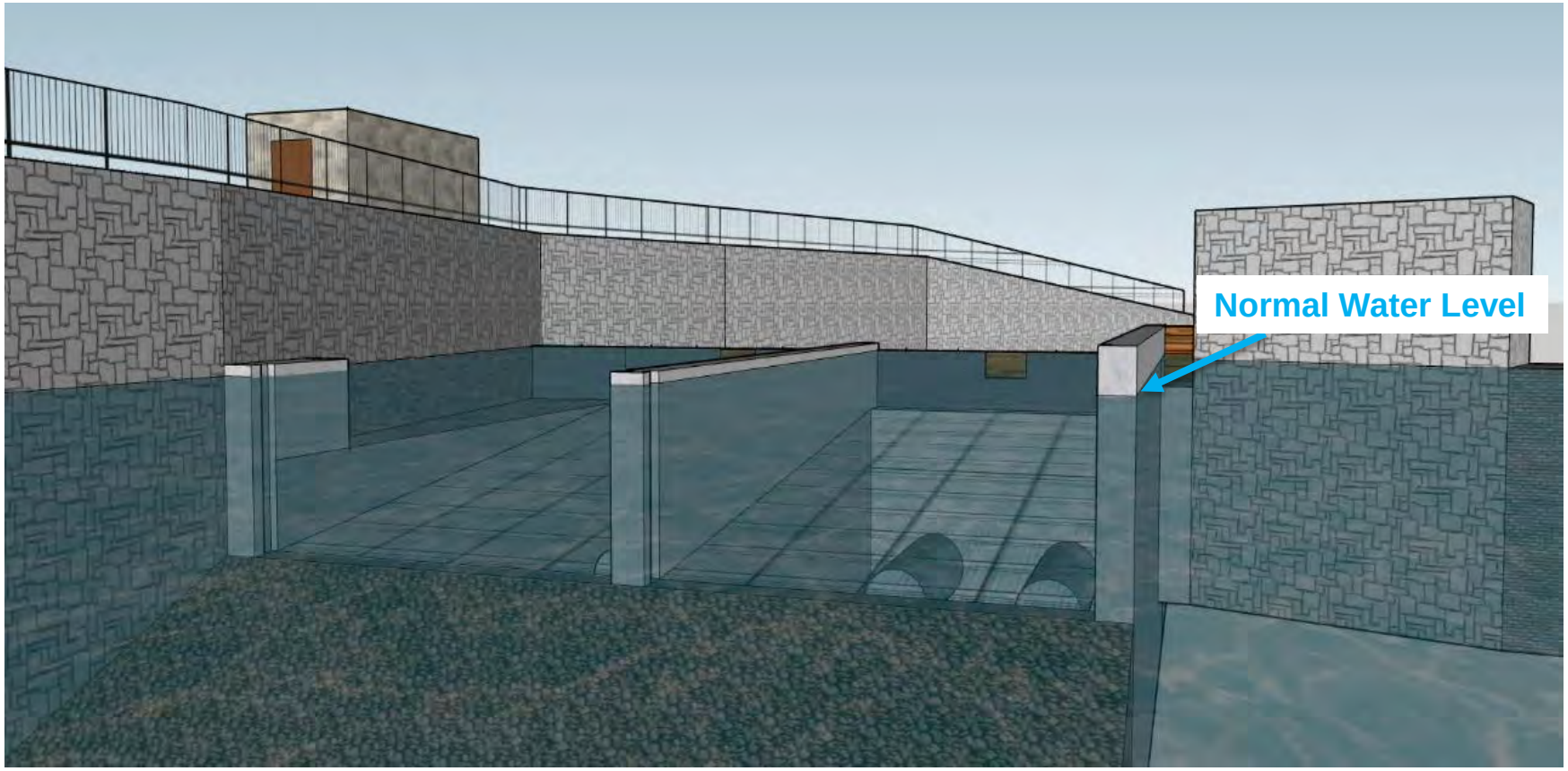

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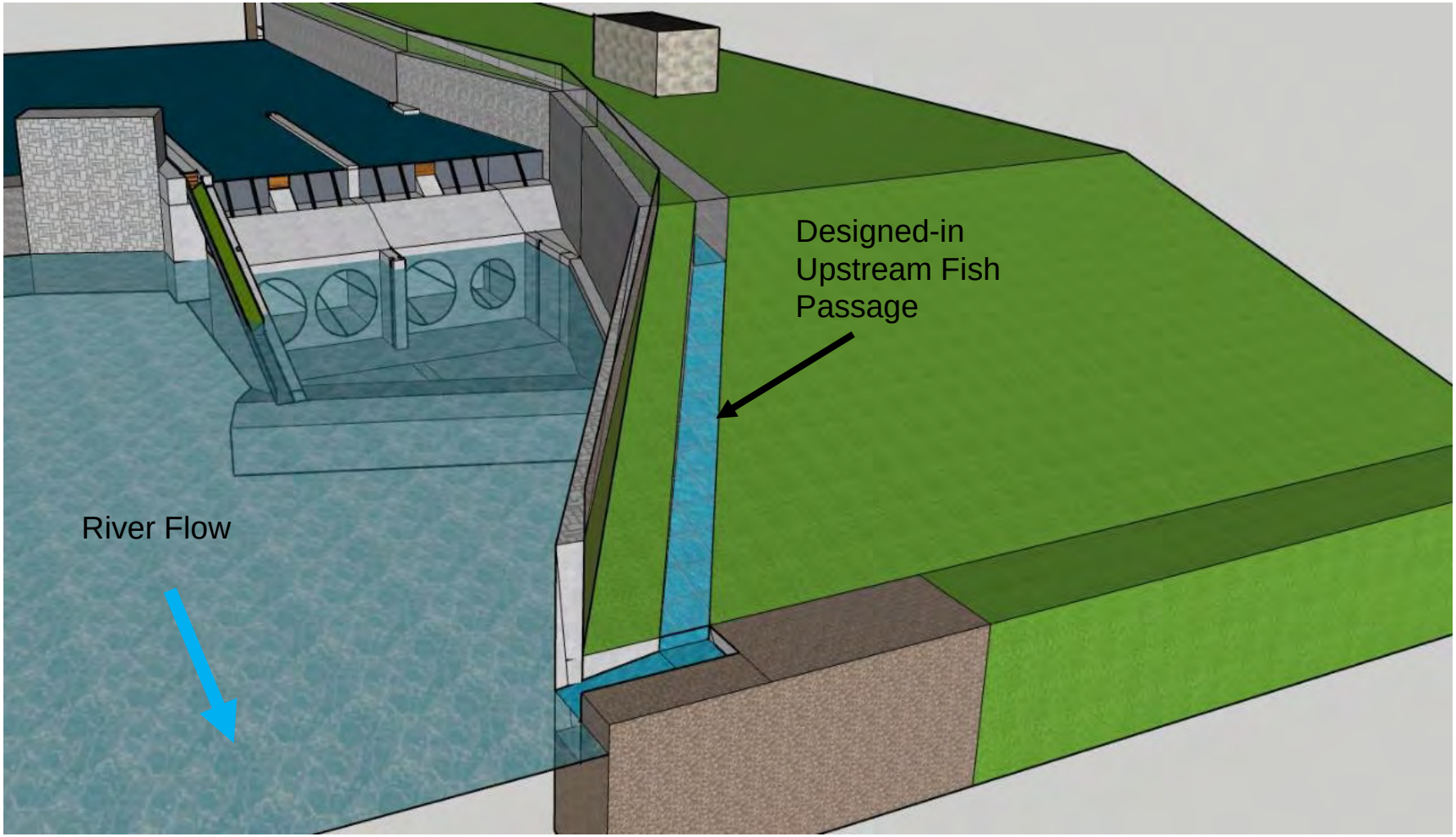

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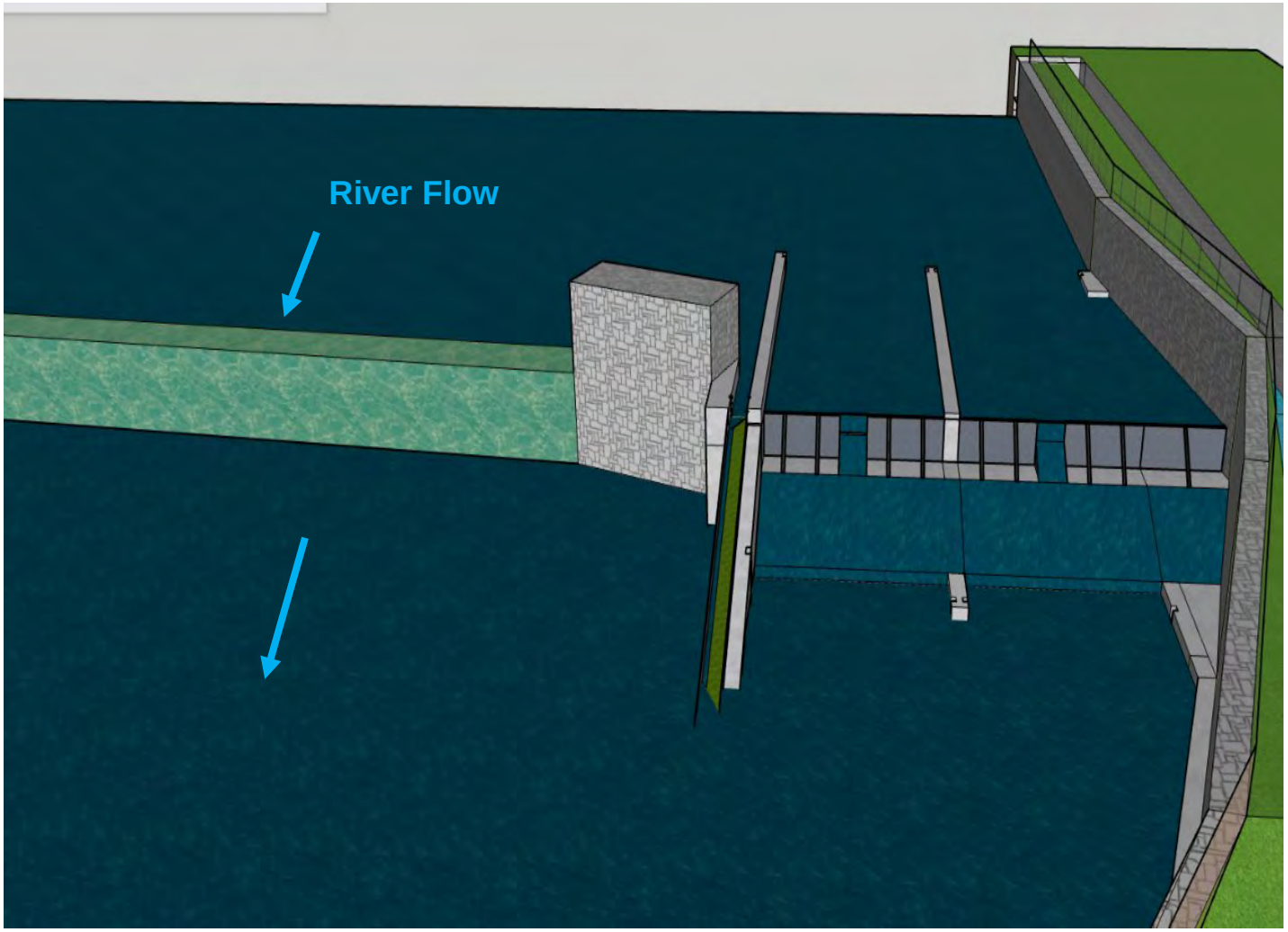

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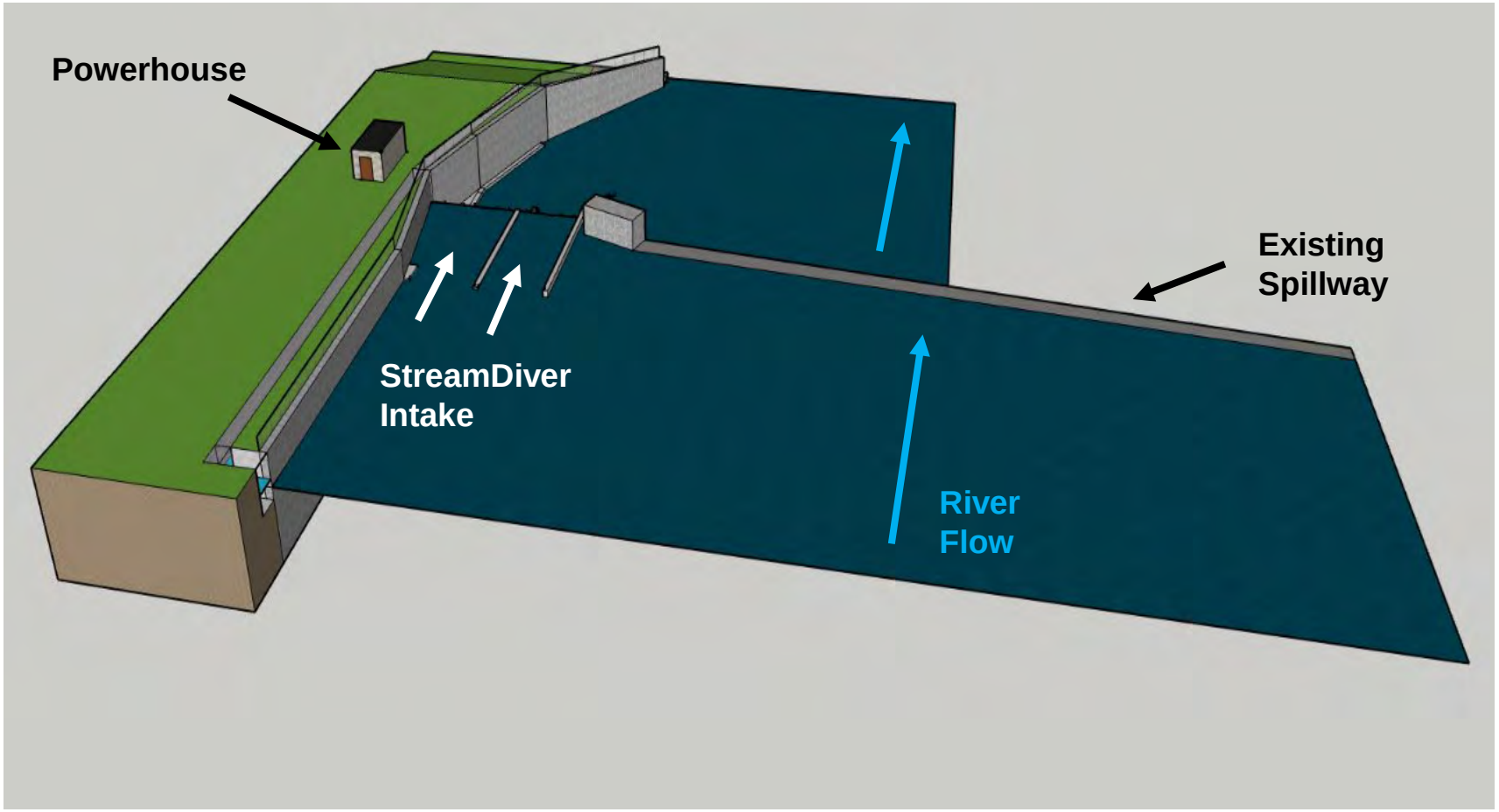

NEHC New England Hydropower Company, LLC

8 April 2021

Via email: JohnPaul.Loether@preservation.ri.gov

J. Paul Loether
Executive Director
State of Rhode Island Historical Preservation and Heritage Commission
Old State House
150 Benefit St.
Providence, RI 02903

Via email: Jeffrey.Emidy@preservation.ri.gov

Jeffrey Emidy
Deputy State Historic Preservation Officer
State of Rhode Island Historical Preservation and Heritage Commission
Old State House
150 Benefit St.
Providence, RI 02903

Dear Mr. Loether and Mr. Emidy:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric Project (the Project) to be located on the Blackstone River at Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests your input on the Project as redesigned, with regards to Historic Properties.

Due to concerns over flood impacts, as well as access and construction space constraints, the Project has been redesigned and is in the process of filing for a FERC license. The previous design of the proposed Ashton Dam Hydroelectric Project included the dredging of a filled, former, power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

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Single Overhead Transmission Line	800 feet	Single Underground Transmission Line	Approx. 1370 ft to existing transformer
Pad-mounted Transformer	1	Pad-mounted Transformer	1

The StreamDiver turbine is a small, low impact hydropower turbine which operates in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport.

Visually, very little will be seen above the surface of the water. The sidewalls of the concrete bays channeling flow to the turbines will be visible, but the design plans call for these sidewalls to be only a few inches above the normal water surface. In addition, the powerhouse will be considerably smaller and set back on the upland, rather than atop the turbines. Finally, the electrical interconnection lines will be located below ground to an existing transformer at the Ashton Lofts parking lot. This will

eliminate the need for power poles along the bike path. In all, the project is more in scale with the surroundings and should have a smaller construction and visual footprint.

Downstream fish passage including exclusionary trash racks, specific flow amounts to keep fish moving, and notches, will be designed into the Project to allow fish to pass over the turbines. In consultation with the Rhode Island Department of Environmental Management (RIDEM), upstream fish passage will also be designed, but not constructed as part of the Project, until certain fish population criteria are met. Eel passage will be designed and constructed as part of the Project.

Figures are attached to show the project location and approximate size compared to the previous design containing the AST. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact me if you have any questions or comments. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you.

Ms. Glendon Barnes

Sr. Environmental and Regulatory Affairs Specialist
New England Hydropower Company, LLC

glendon@nehydropoewer.com

Ashton Dam, Cumberland, RI
FERC No.P-14634

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Project installation location

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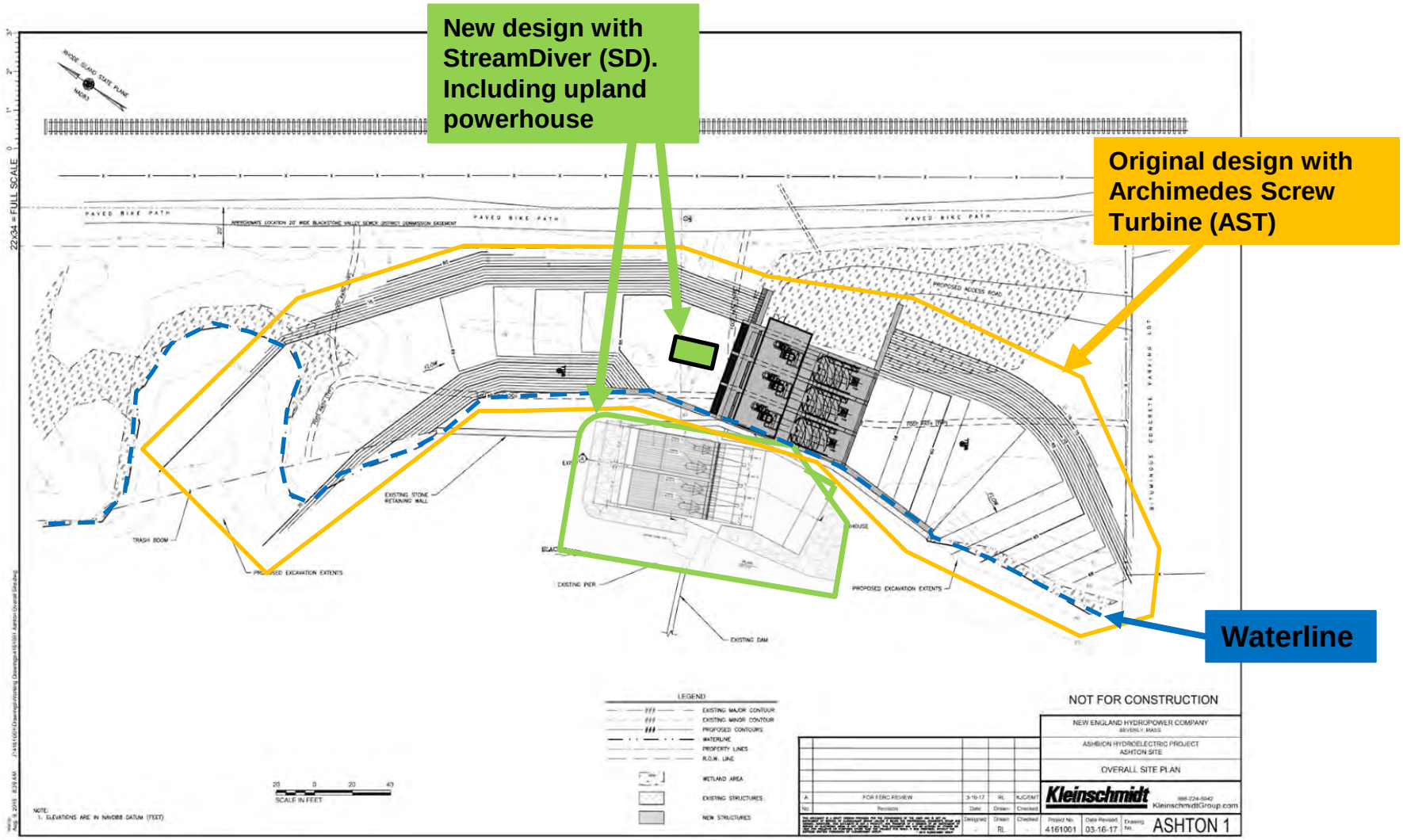

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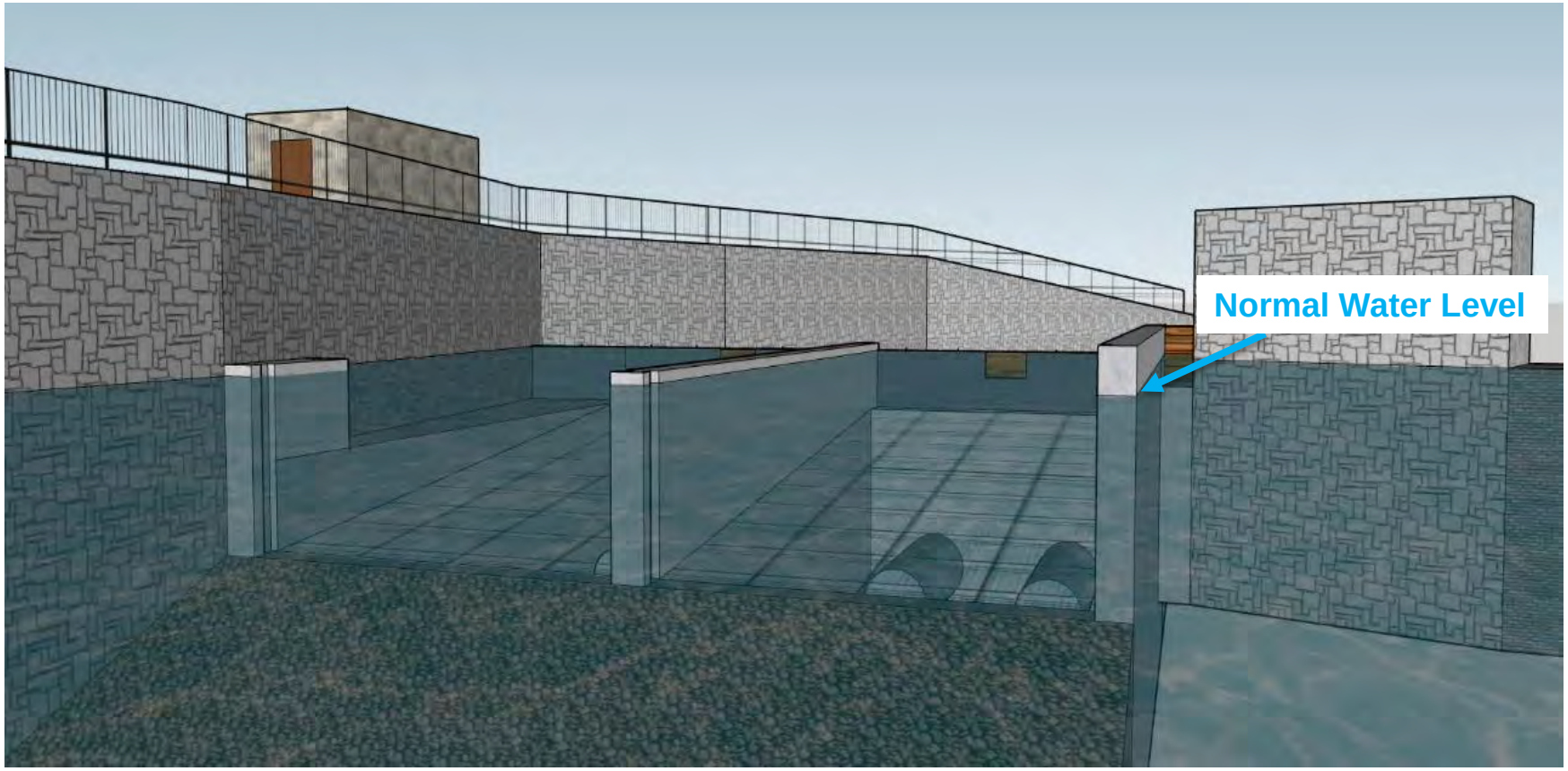
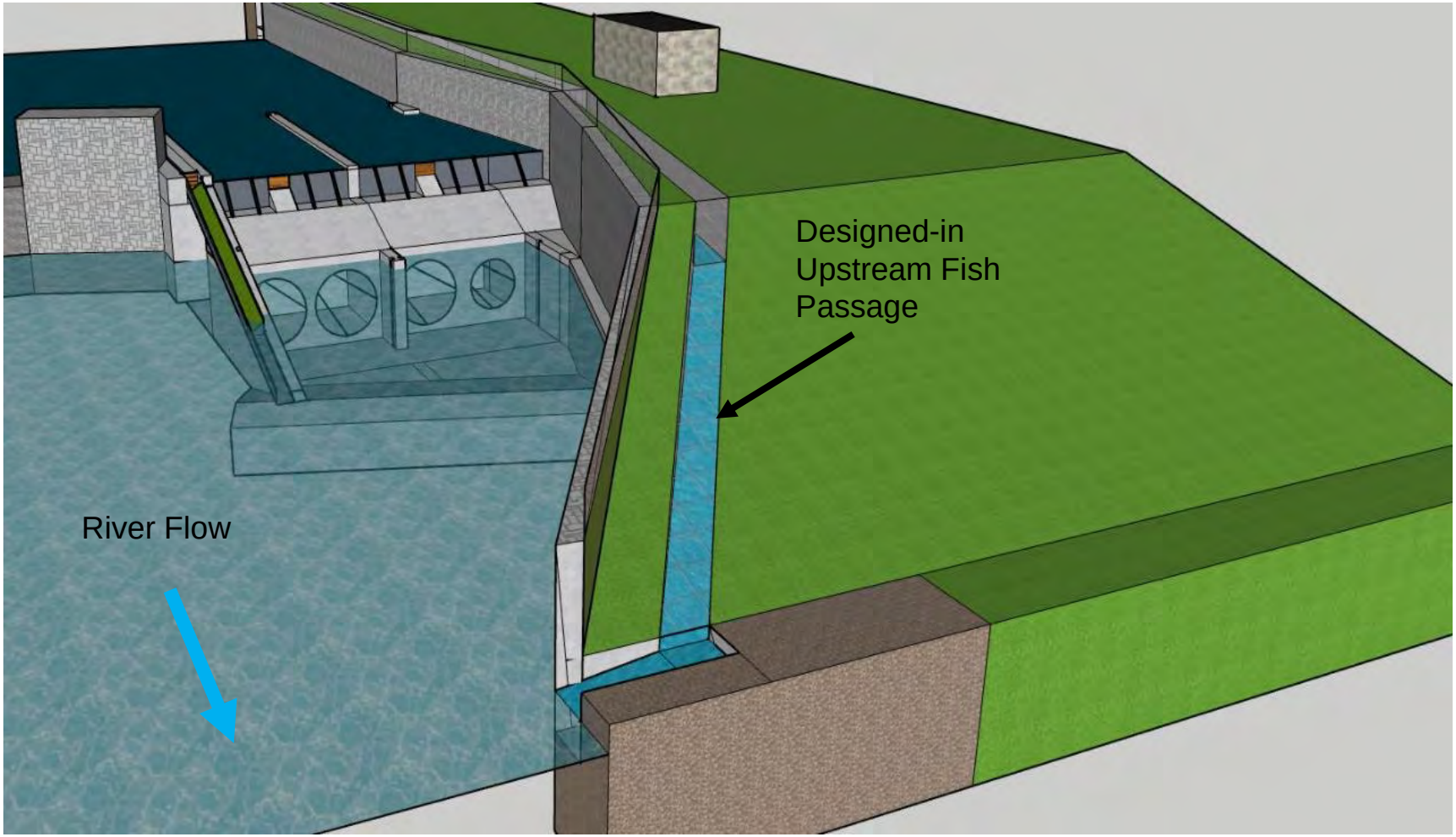
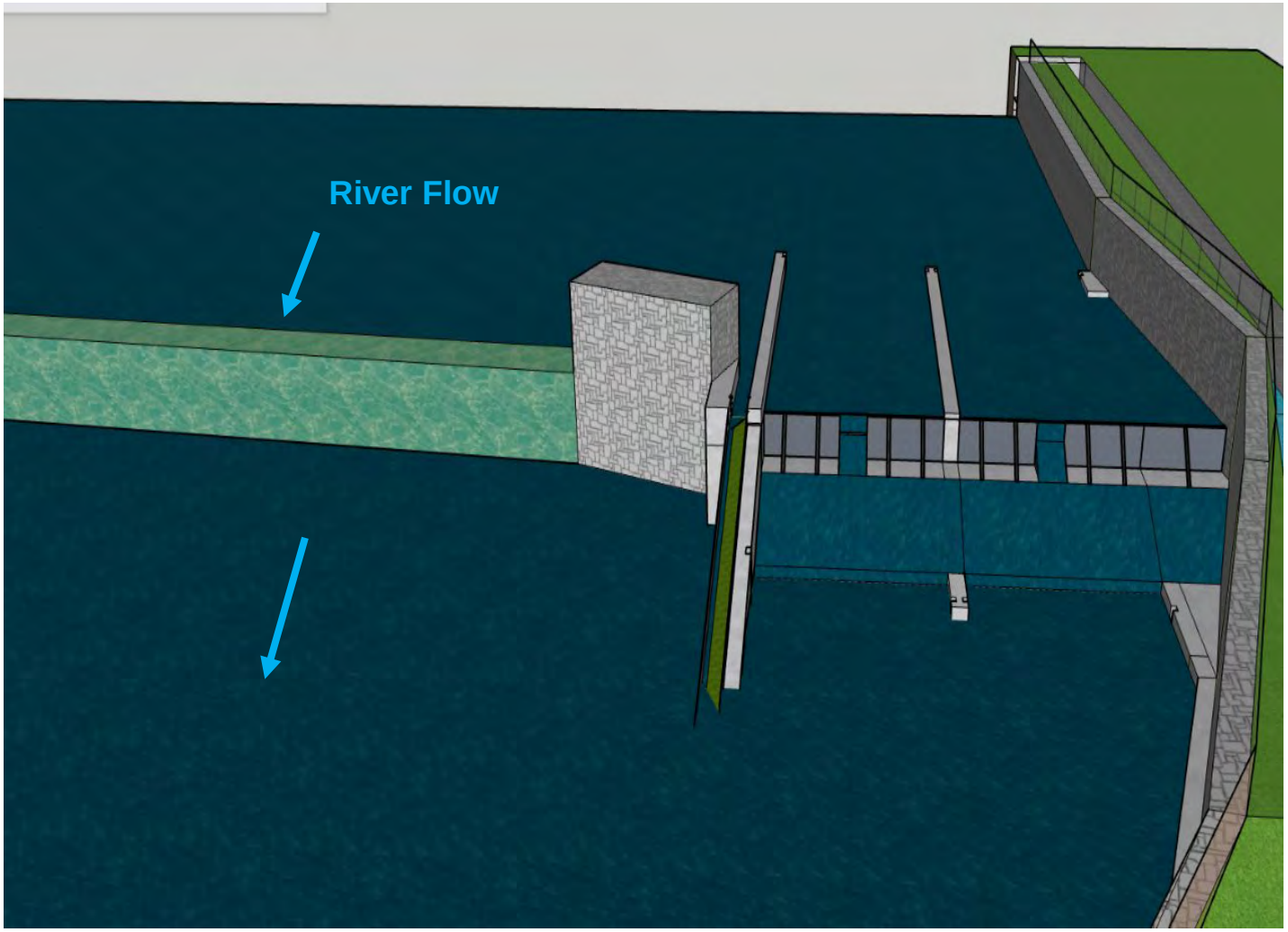


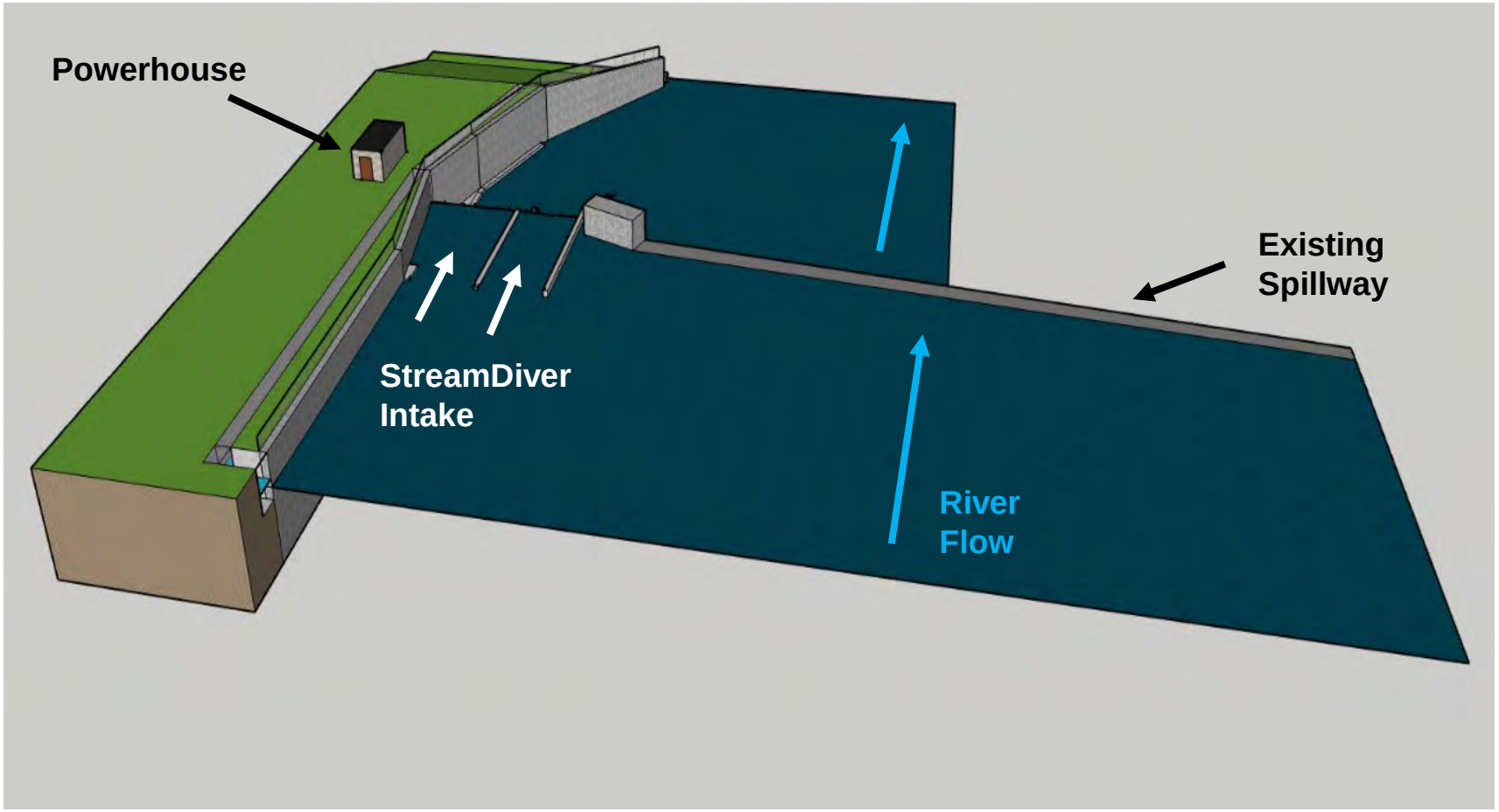
Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Upstream (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



13 April 2021

Via email: christopher.boelke@noaa.gov

Christopher Boelke
Chief, New England Branch
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
NOAA Fisheries Service
Gloucester, MA, 01930

Dear Mr. Boelke:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric project (the Project) to be located on the Blackstone River at the Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests your input on the Project as redesigned, with regards to fish. If you choose not to comment, please inform us in writing.

Due to concerns expressed earlier by Rhode Island Department of Environmental Management (RI DEM) regarding flood impacts, as well as access and construction space constraints, the Project has been redesigned. The previous design of the proposed Project included the dredging of a filled, former power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

The current design is for the installation of four StreamDiver unregulated, fully submersible Kaplan-style turbines that will be located in the River beneath the surface of the water. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. A drop gate to replace the gating structure washed out in the 2010 flood will be reconstructed along the lower-level spillway's crest to allow for the appropriate flow through the submerged turbines and return a veil flow of water to the main dam crest. This new design will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

Table 1: Comparison of Previous and Currently Proposed Design Details

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Steel Archimedes Screw Turbine (3)	Length: 20.4 ft Diameter: 13.5 ft	StreamDiver submerged Kaplan turbines (4)	Length: 13.39 ft (3 large units) 10.61 ft (1 small unit) Diameter: 7.73 ft (3 large units) 5.98 ft (1 small unit)

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Concrete Penstock	Number: 3 Length: 30 ft Width: 15 ft Depth: 12 ft	Concrete Penstock	Number: 2 Length: 43.85 ft Width: 22.15 ft Depth: 19.2 ft
Concrete Tailrace	Number: 3 Length: 120 ft Width: 42 ft	Concrete Tailrace	Number: 1 Length: 11.5 ft Width: 44.3 ft
Steel Trash Rack	Number: 3 Height: 12 ft Width: 15 ft Spacing: 9 in	Steel Trash Rack	Number: 2 Length: Approx. 41ft Width: Approx. 19.8 ft Spacing: 12-14mm
Steel Sluice Gate at Penstock Intake	Number: 3 Area (each): 120 sq ft Height: 8 ft Width: 15 ft	No Steel Sluice Gate at Penstock Intake	N/A
One-story Powerhouse	Height: 18 ft Length: 53 ft Width: 24 ft	One-story Powerhouse	Height: 8 ft Length: 20 ft Width: 8 ft
Safety Fencing around Above-ground Structures	TBD	Safety Fencing around Above-ground Structures	TBD
Single Overhead Transmission Line	800 feet	Single Underground Transmission Line	Approx. 950 ft
Pad-mounted Transformer	1	Pad-mounted Transformer	1

The StreamDiver turbines are small, low impact hydropower turbines which operate in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water.

Downstream fish passage protection measures will include exclusionary trash racks with bar spacing at approximately 12-14mm. Recognizing narrow bar spacing is not a sufficient protection measure, the main focus of excluding fish will be designing the angle of the trash rack to allow a specific flow ratio to encourage fish to pass over the turbines. The precise flow amount and design of the trash racks is still being determined but will allow for a through velocity of approximately 0.5m/s to keep fish moving. In addition, two notches (approximately 2-3 feet wide and 1.5-2 feet deep) will be designed into the drop gate to allow fish to pass over the turbines. Flow through the notches should be around 40cfs, but could be increased slightly if this proves to be insufficient[1]. Either of the notches can be closed off if there is low river flow, but one of the notches will always be left open, for downstream passage. Below the notches, the concrete structure will be sloped and will remain wetted to allow fish a gentle and safe

[1] There currently is no flow control at the Ashton dam, the sluice gates having been destroyed in the March 2010 storm. NEHC intends to perform a flow study to confirm appropriate flow levels following construction of new flow controls.

return to the river. Upstream fish passage will also be designed, but not constructed, as part of the Project. Eel passage will be designed and constructed as part of the Project.

As the Project is being designed to pass River flows in a run-of-river manner, backflooding should not be an issue. The drop gate to be constructed atop the lower-level spillway will be adjustable and will lay flat to pass flood flows, effectively replicating the conditions that currently exist. With the drop gate in a raised position, a small veil flow of 100cfs is planned to pass over the main spillway, which is no different than conditions would be in moderate flows. Recent inundation mapping by the engineers at Kleinschmidt Associates raised no concerns about the construction of the Project, as designed, altering the existing potential for flooding at the Project site, stating the Inflow Design Flood (IDF) is recommended to be the 100-year flow. And the spillway has the capacity to pass the IDF without overtopping any of the abutment structures.

Figures are attached to show the project location and approximate size compared to the previous design containing the ASTs. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact the undersigned if you have any questions. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you.

Carol Wasserman

Carol Wasserman
Principal – Regulatory and Environmental Affairs
New England Hydropower Company, LLC
carol@nehydropower.com

encl.: figures

NEHC New England Hydropower Company, LLC

8 April 2021

Anthony Dean Stanton, Chief Sachem
Via email: adstanton@nitribe.org
Narragansett Indian Tribe
PO Box 268
Charlestown RI 02813

John Brown, THPO
Via Email: tashtesook@aol.com
Narragansett Indian Tribe
PO Box 463
Charlestown, RI 02813

Dear Mr. Stanton and Mr. Brown:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric Project (the Project) to be located on the Blackstone River at Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests any information you are willing to share about resources of Tribal interest that may be affected by the Project, and to determine whether or not the Narragansett Tribe desires to participate in the licensing effort with the Federal Energy Regulatory Commission (FERC), the federal regulating agency for the Project.

The previous design of the proposed Ashton Dam Hydroelectric Project included the dredging of a filled former power canal to install three Archimedes Screw Turbines at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland.

The current design is for the installation of four StreamDiver unregulated, Kaplan-style turbines that will be located in the River. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. This will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

The StreamDiver turbine is a small, low impact hydropower turbine which operates in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water. Downstream fish passage will include exclusionary trash racks, specific flow amounts to keep fish moving, and notches designed into the Project to allow fish to pass downstream, over the turbines. In consultation with the Rhode Island Department of Environmental Management (RIDEM), upstream fish passage will also be designed, but not constructed as part of the Project, until certain fish population criteria are met. Eel passage will be designed and constructed as part of the Project.

Figures are attached to show the project location, as well as several computer-created drawings to give a basic idea of the completed construction.

Please contact the undersigned if you have any comments, would like to visit the Project Site, and/or if you have an interest in participating in the licensing of this small-scale hydropower project. We would

also appreciate knowing if you do not wish to participate in the licensing. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you for your time.

Ms. Glendon Barnes
Sr. Environmental Regulatory Affairs Specialist
New England Hydropower Company, LLC

glendon@nehydropower.com

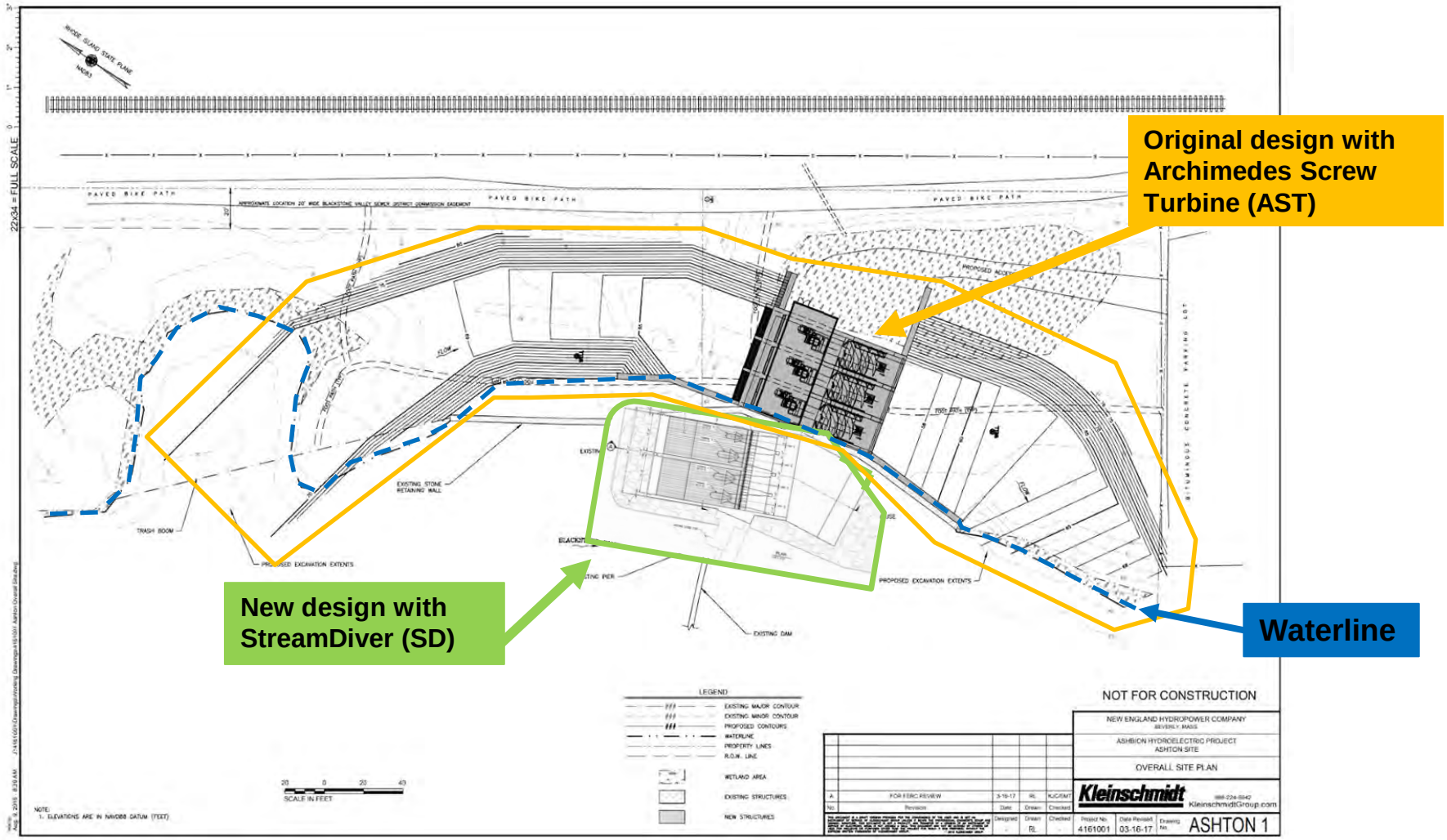
Attachments: figures

Ashton Dam, Cumberland, RI
FERC No.P-14634

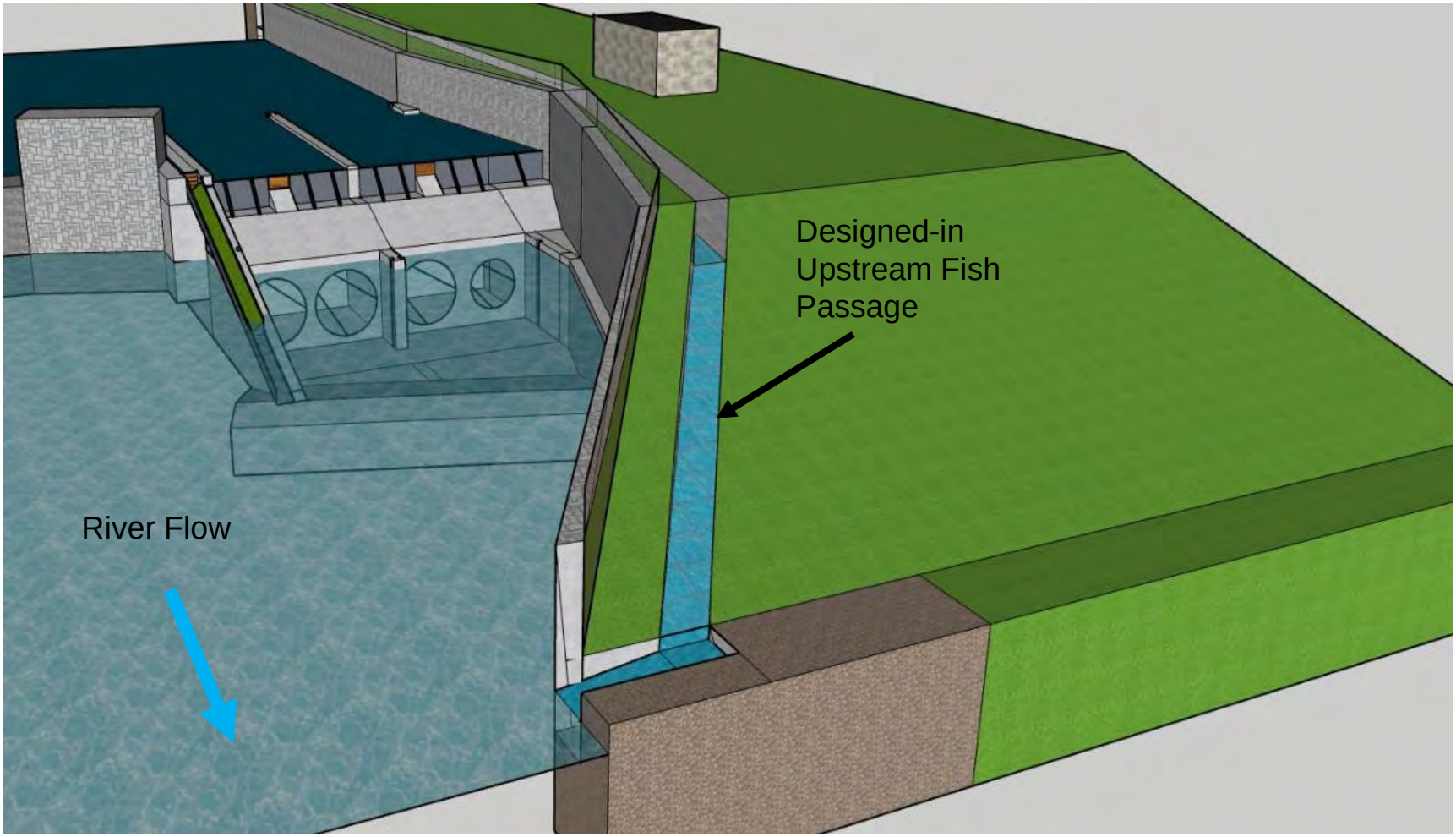
Project installation location

Ashton Dam, Cumberland, RI
FERC No.P-14634

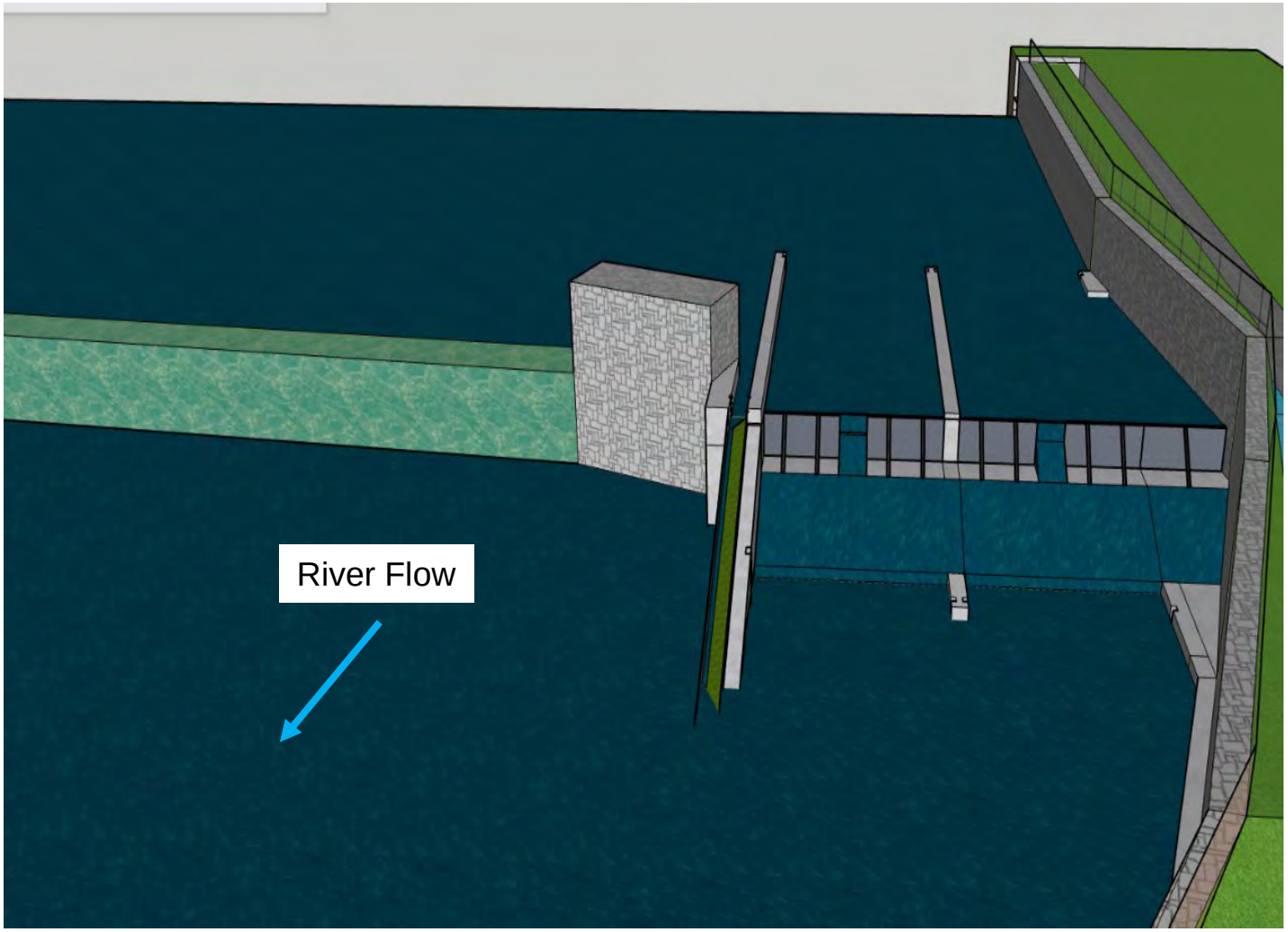
AST/SD Project Footprint Comparison



Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project (for illustrative purposes only- not to scale)



Ashton Dam Consultation; P-14634
U.S. Fish and Wildlife Service (USFWS)
Rhode Island Department of Environmental Management (RIDEM)
May 10, 2021
Conference Call Summary

Participants

USFWS: Melissa Grader, Northeast Region
Bryan Sojkowski, Northeast Region

RIDEM: Chuck Horbert, Assistant Director
Eric Beck, Office of Water Resources
Alan Libby, Principal Biologist
Sarah Frazar, Water Quality
Neal Personeus, Water Resources

NEHC: Carol Wasserman, Regulatory Director
Glendon Barnes, Senior Regulatory Specialist
Patrick Wendt, Fisheries Specialist
Jeff Mobed, Engineering Director
Christopher D'Ovidio, Esq.

Kleinschmidt Associates: Eric Turgeon, PE, Senior Project Manager
Austin Cormier, Project Manager
Charles Aquilina, H & H Modeling
Jennifer Jones, PE, Hydrologist

Agenda

General Description: Changes to Original Project Plan (turbines, powerhouse, project configuration) (presentation and narrative description forwarded to all participants prior to the meeting0.

Reviewed basic design and turbine configuration and components; discussed flow rates over the main spillway, notches, position of the turbines relative to the powerhouse (new position of powerhouse). Described new configuration, including moving powerhouse out of the floodway and submerging the turbines under the riverbed. Discussed gate alignment relative to existing dam, matching elevations.

StreamDiver Technical Description: Unregulated Kaplan with Exclusion Devices, Trashracks and Bars, Flows

Reviewed angle of trash rack (11 degrees relative to horizontal axis), bar spacing at 12- 14 mm, trash rack design intended to manage flow velocities at 3:1 – 4:1 ratio to approach

velocities (horizontal rate of flow), potential to include air blast system, if necessary, head and tailwater elevations.
NB: A significant issue was raised by Chuck Horbert re: operations of the drop gate and the potential impacts on upstream water levels during normal and flood conditions**.** The goal is to mimic existing flow conditions. **NEHC will: (1) provide better understanding of gate operations, integration of control systems, and automated controls and (2) will forward any relevant operational information from the Notre Dame 10-SD project to all participants.**

Pre and Post Construction Conditions: Flood Levels, Impoundment Effects

Jenny Jones described the approach to assessing flooding. The assumption for modeling is the 100-year flood. Using FEMA effective model to revise the cross sections based on existing conditions, the intent being to look at the existing conditions as they are now. She is using a steady state (not a full dynamic model) single inflow model but can expand to dynamic model if the agencies so request. Based on the data, there should be no increase in pre- and post-construction flood levels.

Fish Passage: Approach Velocities, Attraction Flows

Discussed approach velocity; strongest flows at 1m/sec^2. Patrick described the proposed eel ramp. NEHC will propose, in coordination with the agencies, and implement an eel survey after Project construction to determine the best location/configuration for the eel pass. NEHC will also assess attraction flows after construction of flow controls.

Bryan Sojkowski asked about fish plunging below dam after passing downstream. Patrick explained NEHC is developing a prefabricated sloped structure; fish will not be plunging onto flat concrete surface.

Anticipated Impacts:

Generally discussed passage issues, which will require studies following construction; smaller overall footprint, less in-water disturbance, no floodway obstructions. Anticipate additional discussions prior to filing final application.

Process: Melissa requested that NEHC submit its proposed final application to the agencies prior to submission to the Commission, after NEHC incorporates revisions and changes based on agency consultation. NEHC had planned on taking this approach, as well as incorporating proposed agency terms and conditions into a final application package. Anticipate about two months to prepare revised application package and to distribute to RIDEM and USFWS.

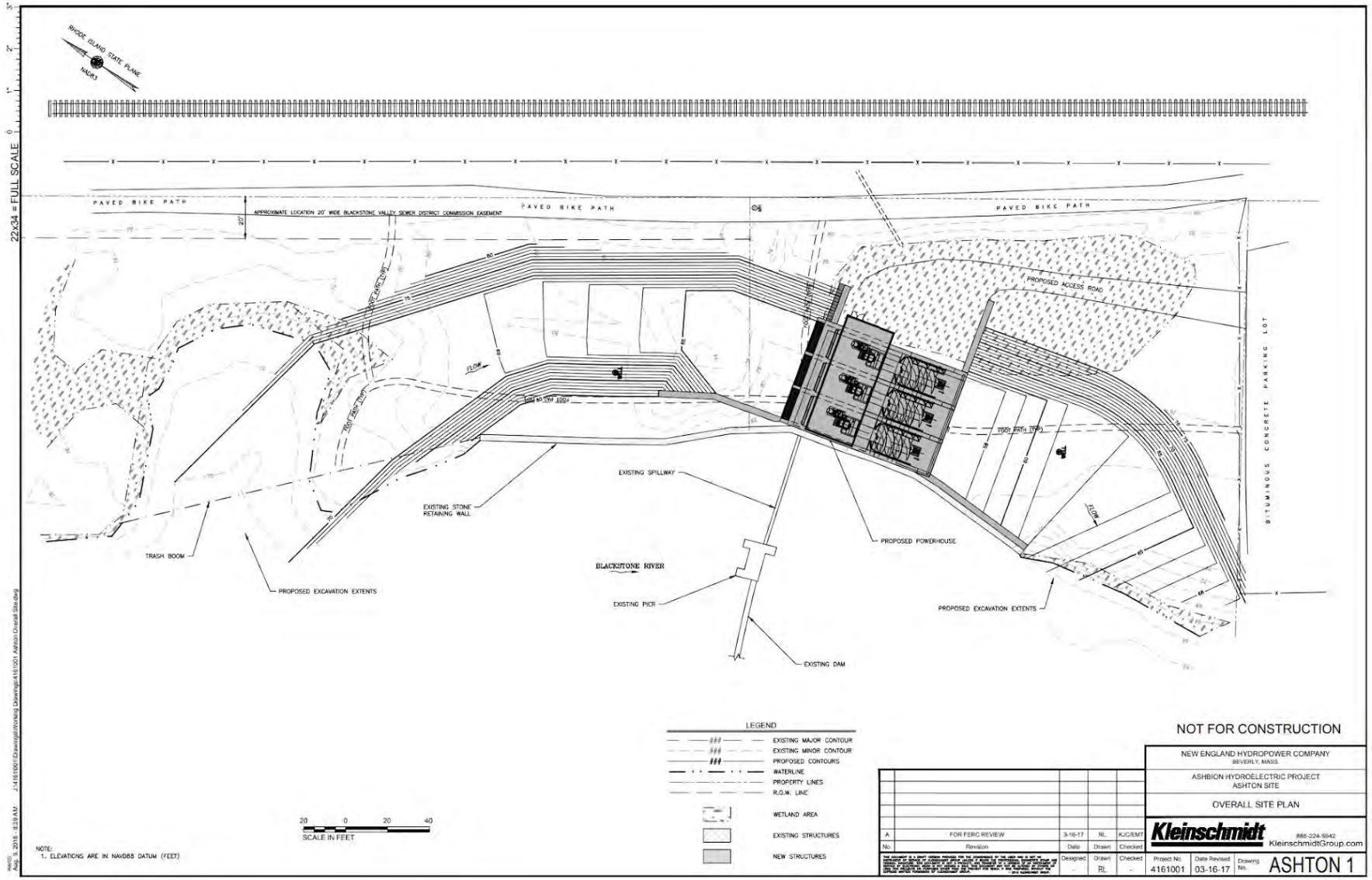
Next Steps:

NEHC to: (1) provide additional operational information to all participants, (2) reach out to the Notre Dame Project for additional information, and develop a schedule for submission of final application.

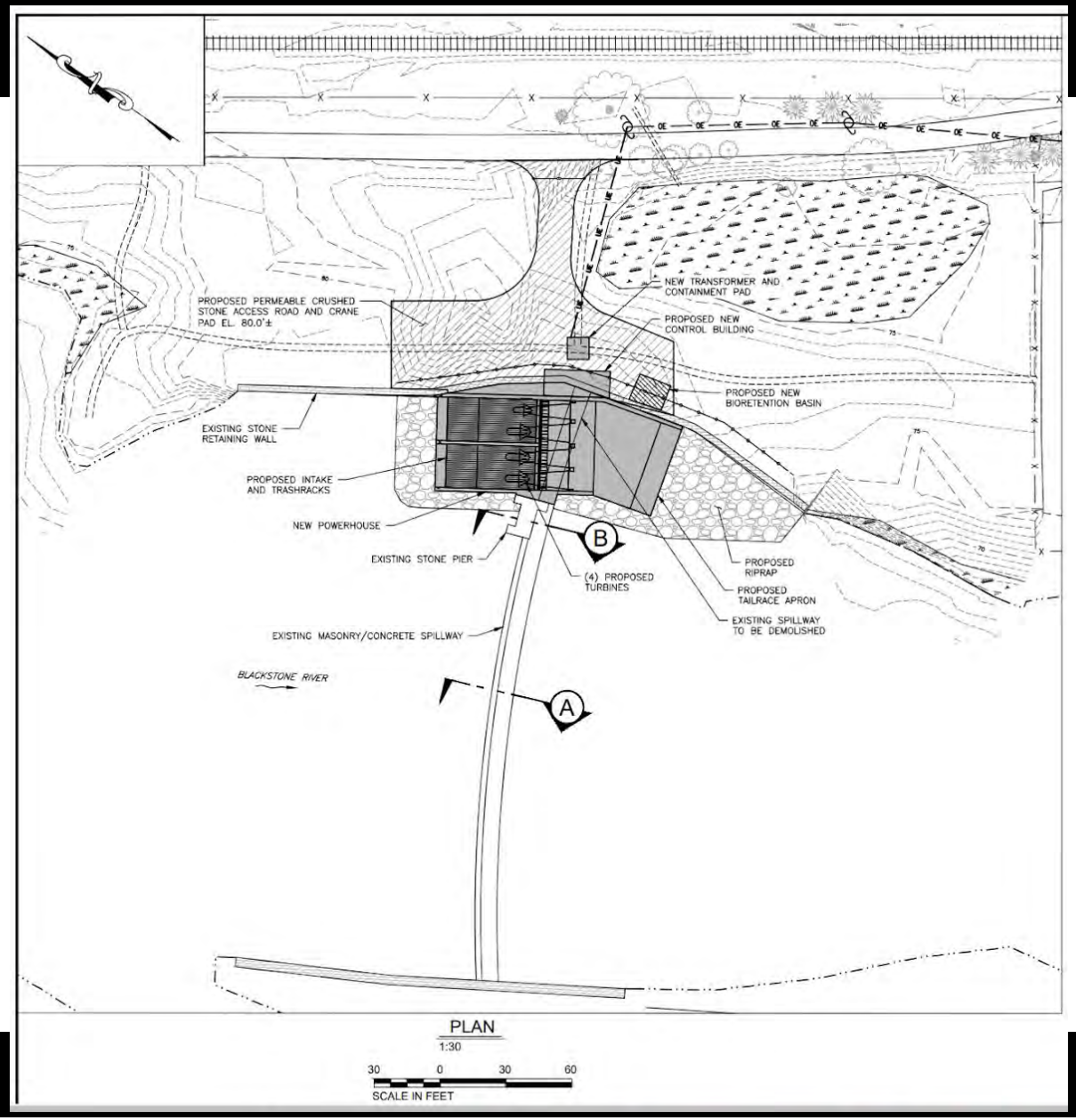

NEHC
New England
Hydropower
Company, LLC

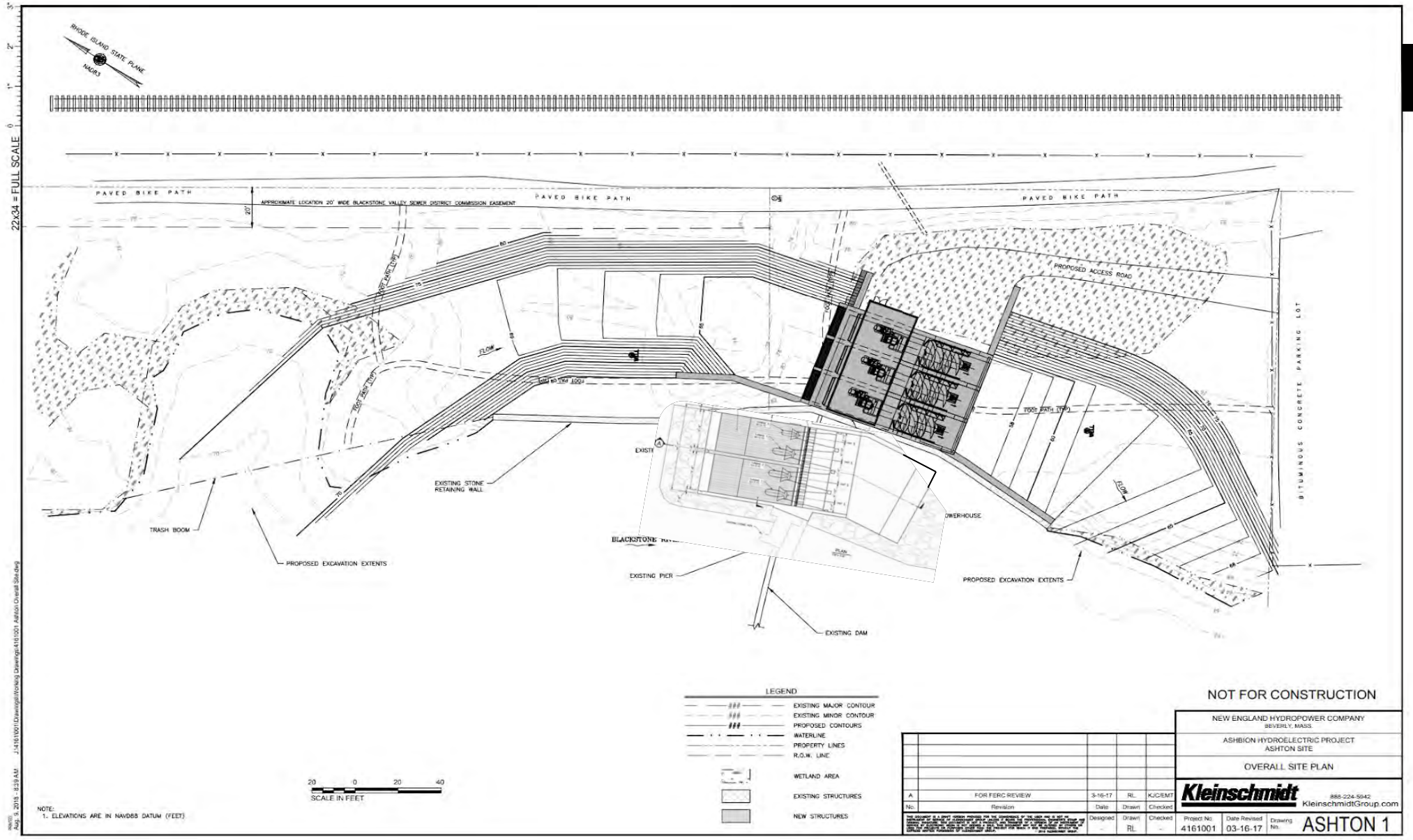
Document Accession #: 20210512-5080 Filed Date: 05/12/2021

Limit of Disturbance with AST's



Limit of Disturbance with Stream Divers





NOT FOR CONSTRUCTION

No.	Revision	Date	Drawn	Checked
A	FOR FERC REVIEW	3-16-17	RL	KJC/EMT

Designed - Drawn RL Checked -

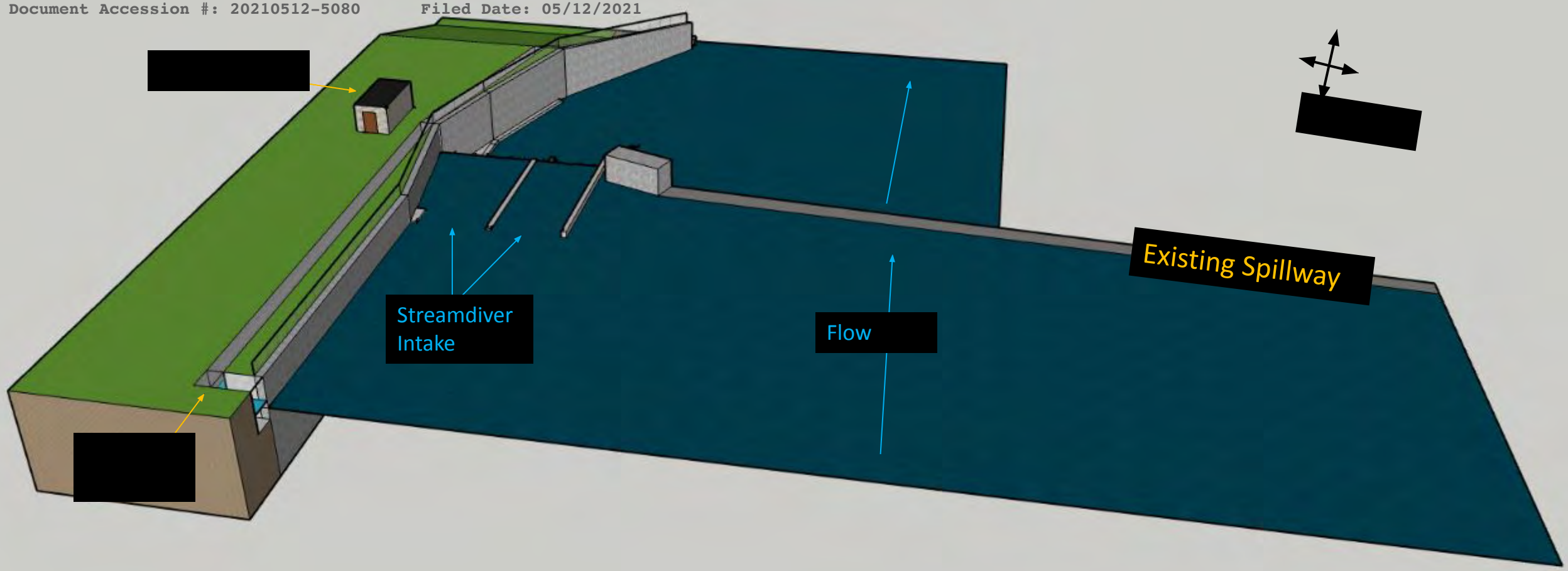
NEW ENGLAND HYDROPOWER COMPANY
BEVERLY, MASS.

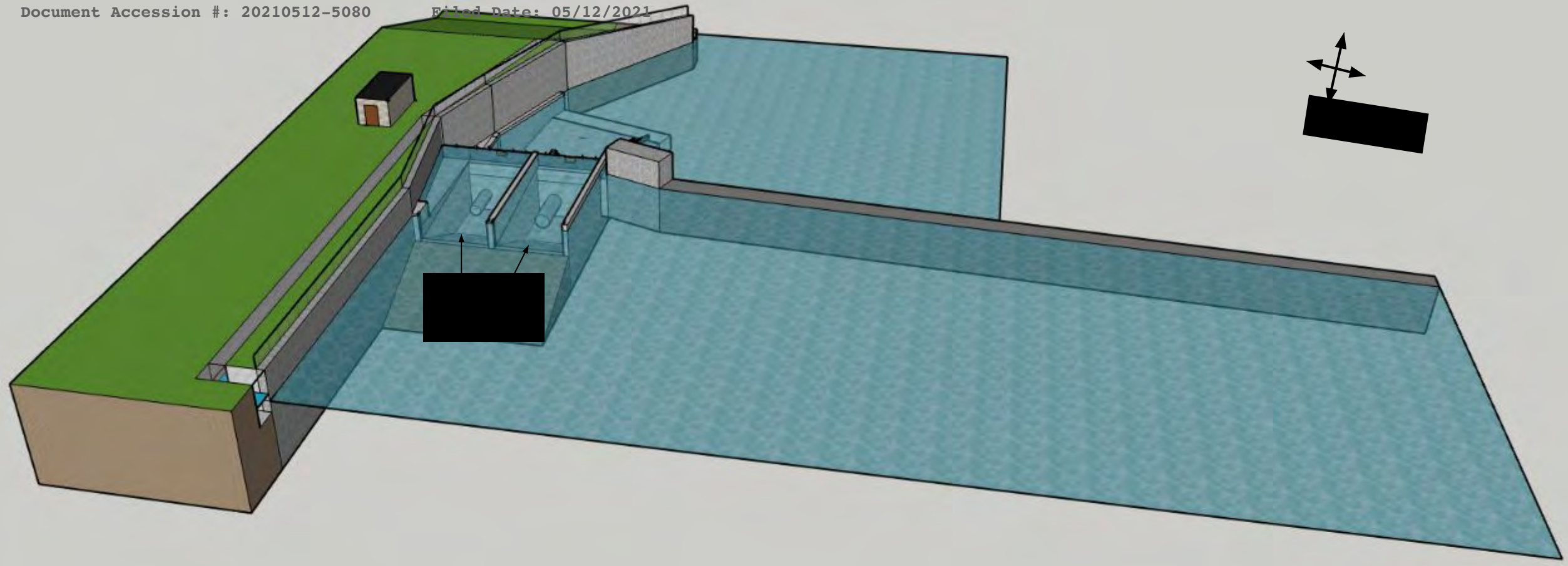
ASHBION HYDROELECTRIC PROJECT
ASHTON SITE

OVERALL SITE PLAN

Kleinschmidt 888-224-5942 KleinschmidtGroup.com

Project No. 4161001 | Date Revised 03-16-17 | Drawing No. ASHTON 1





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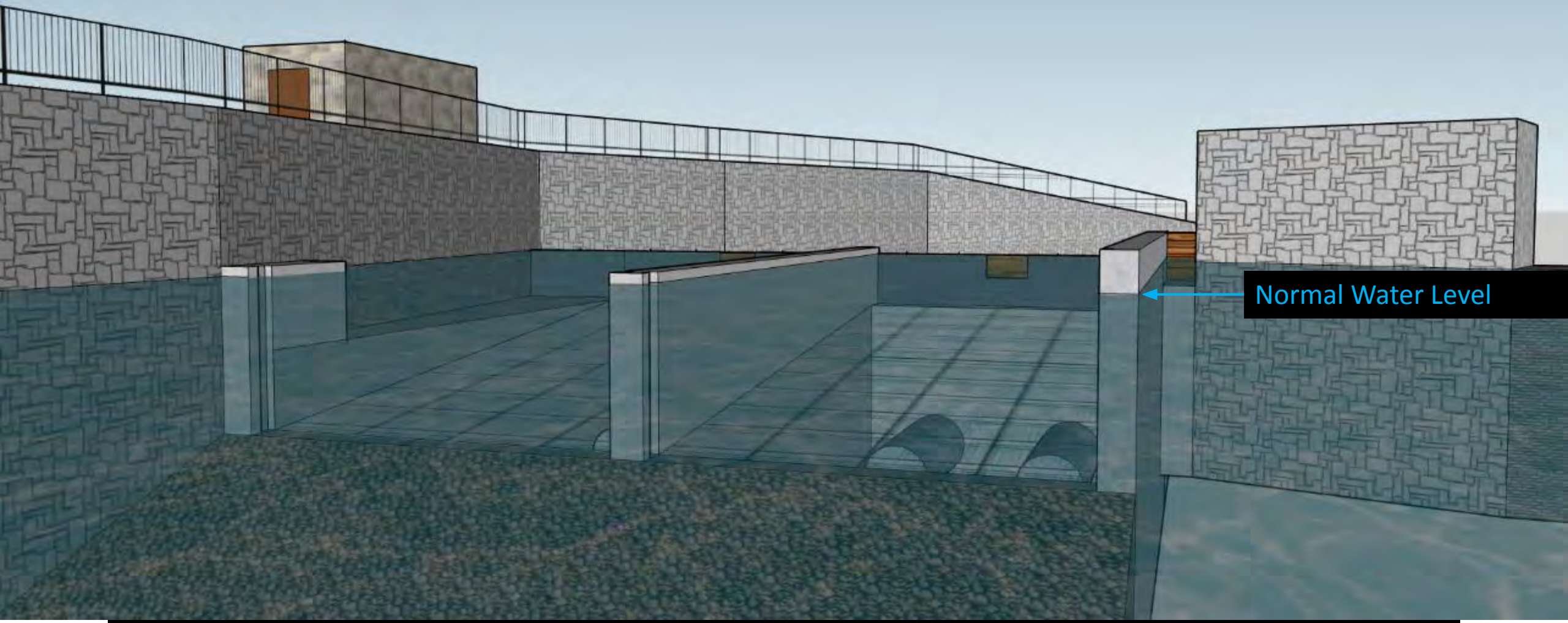

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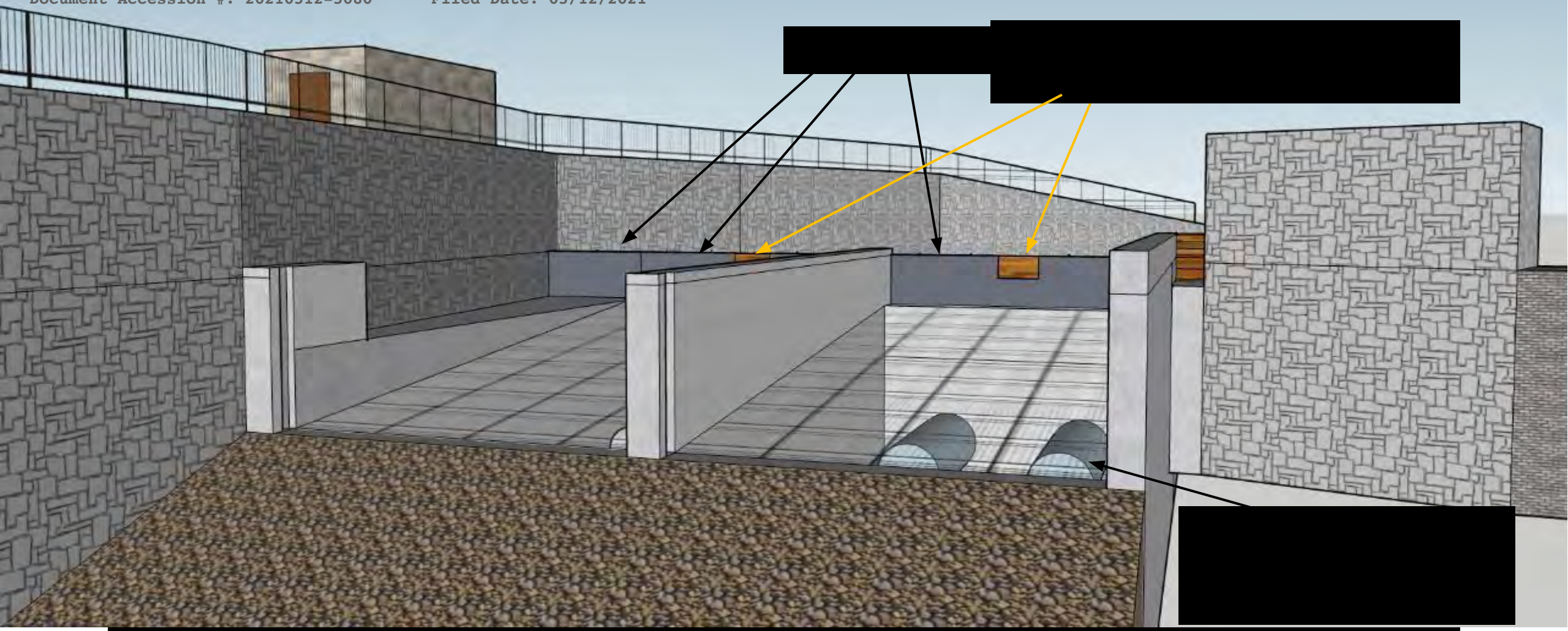

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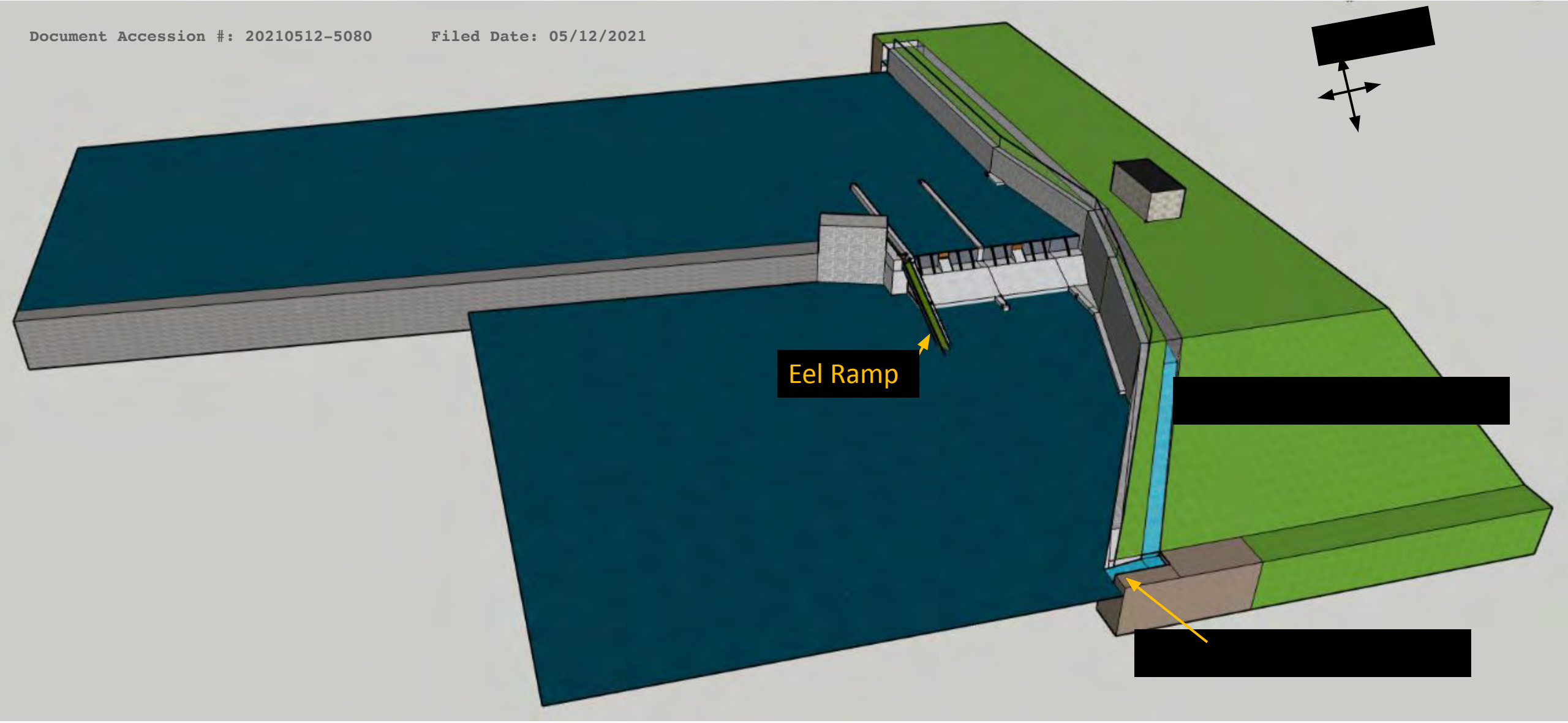

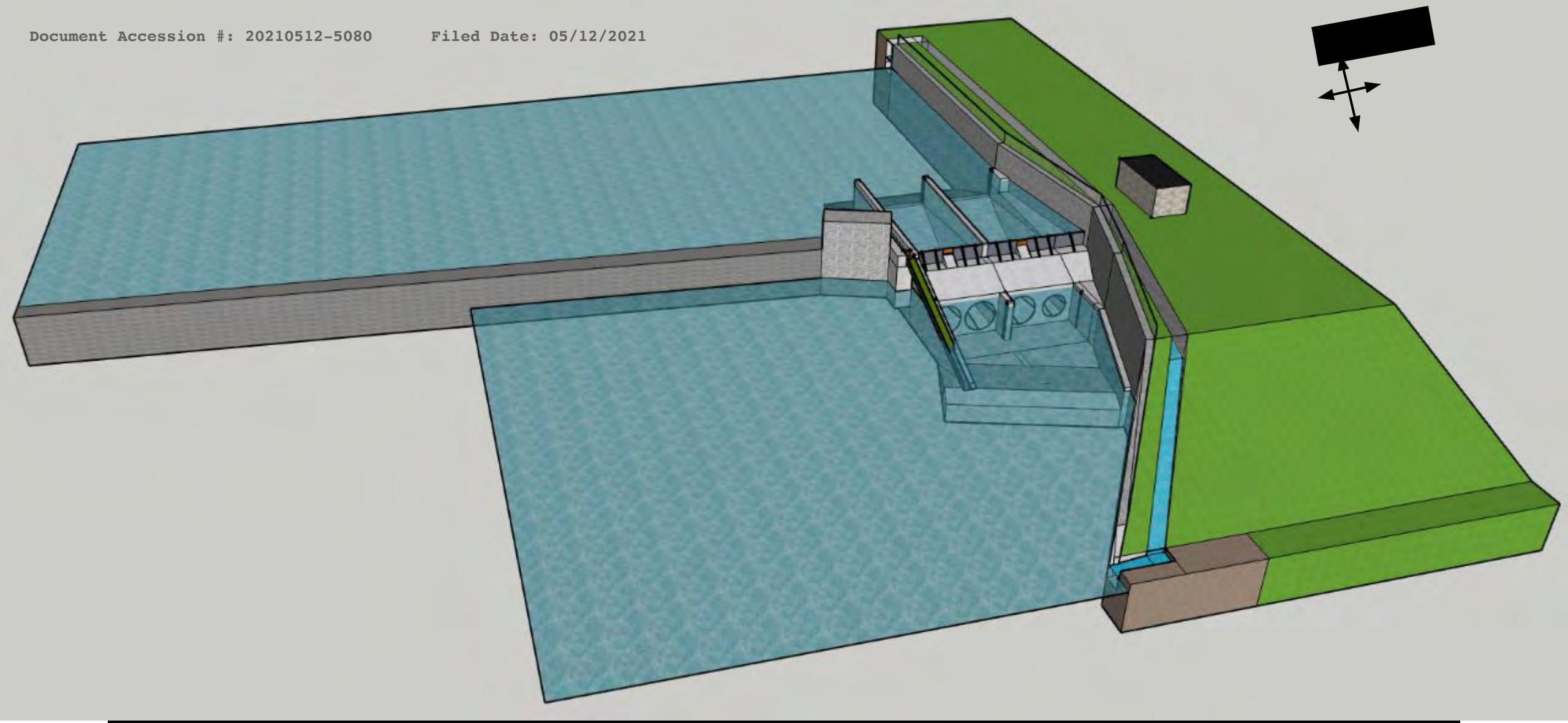

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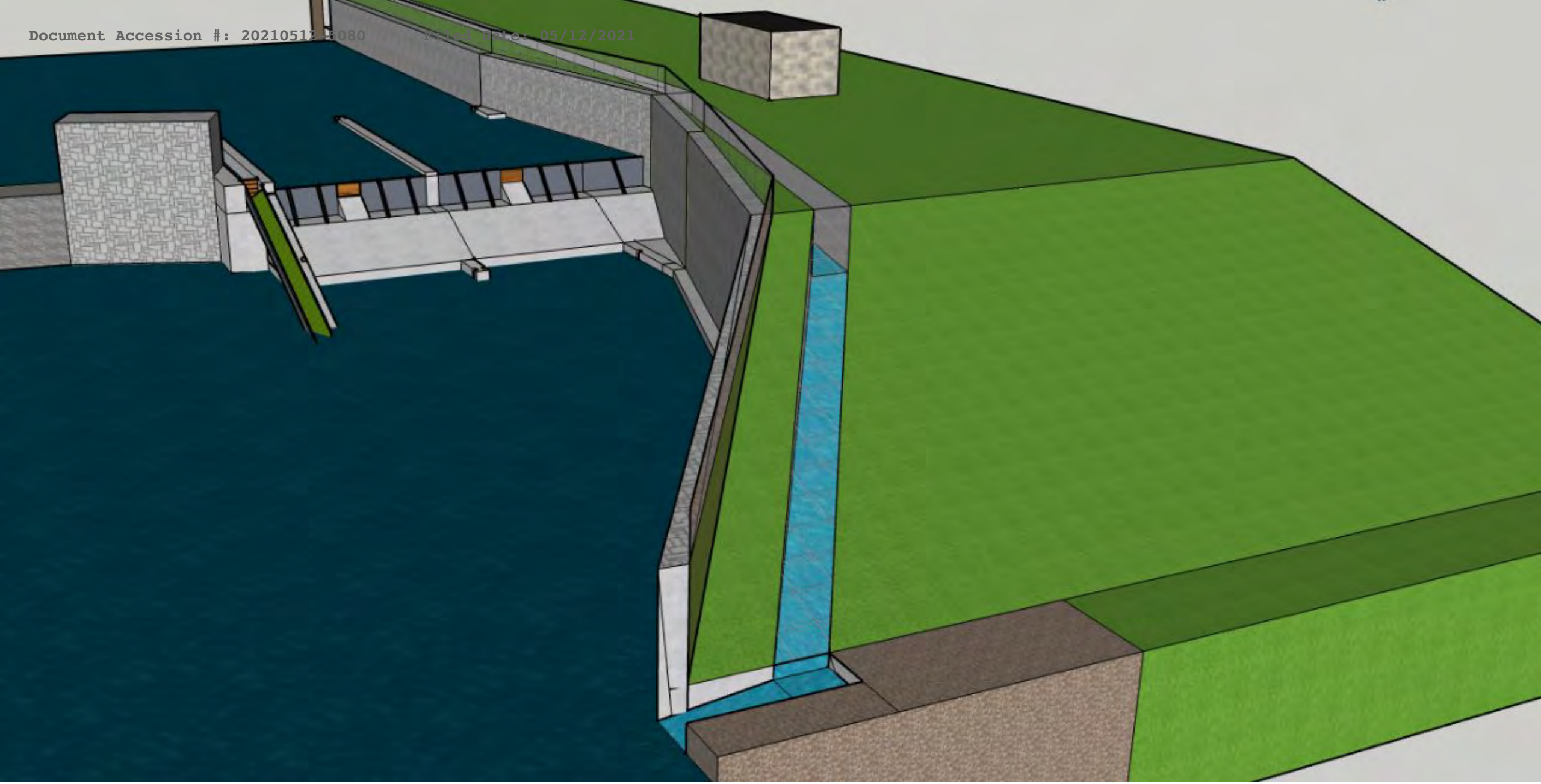

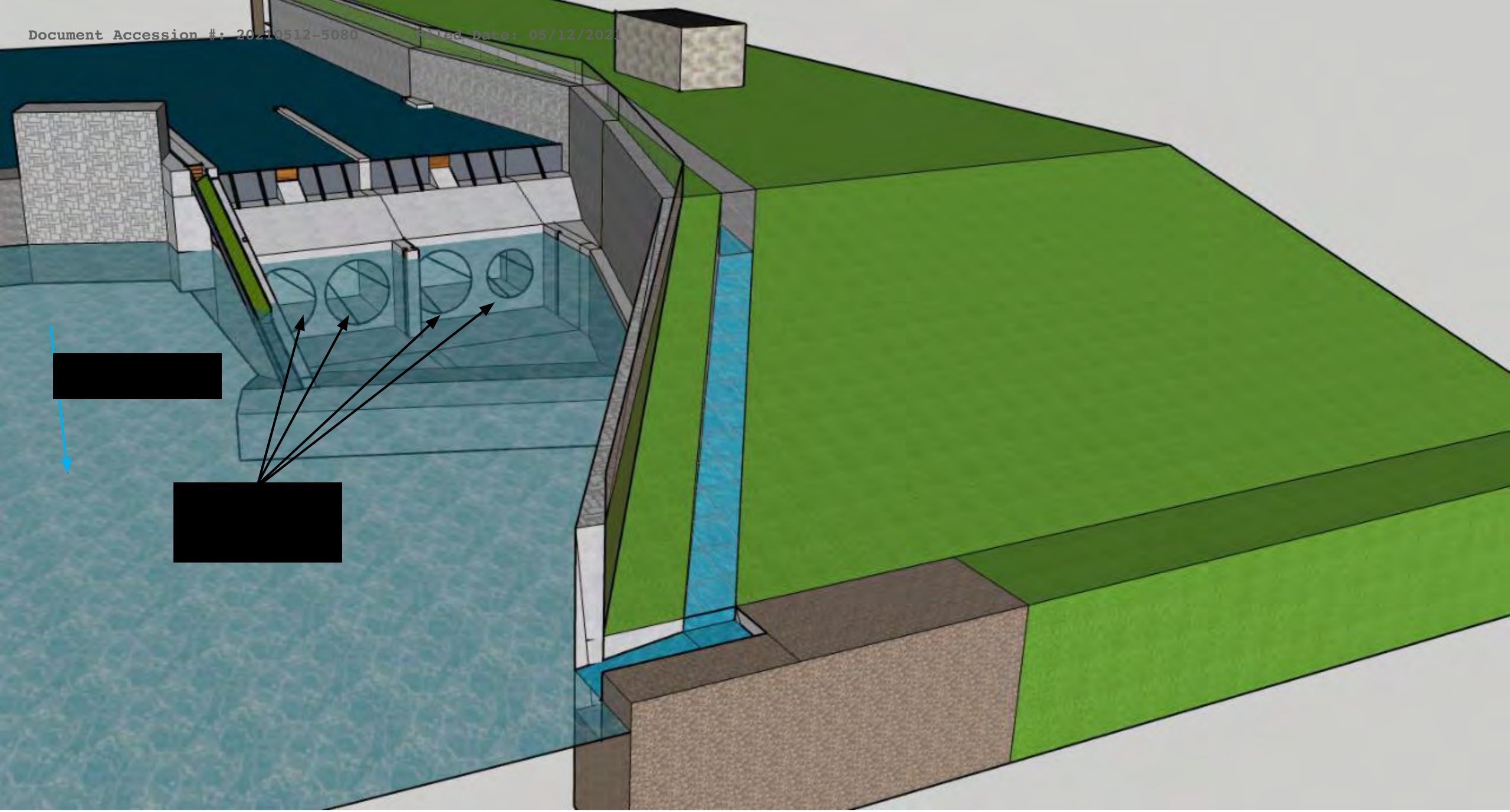

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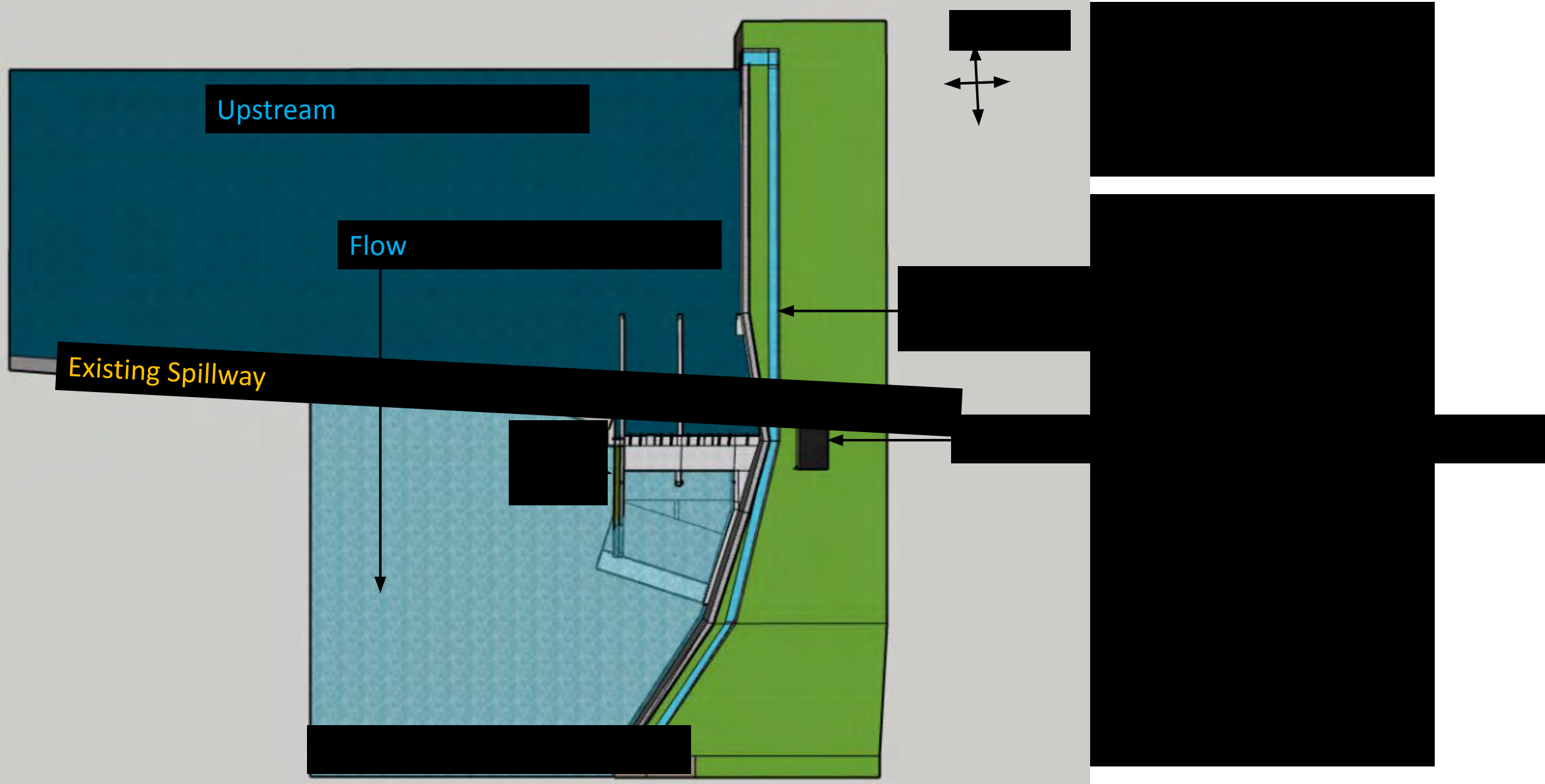

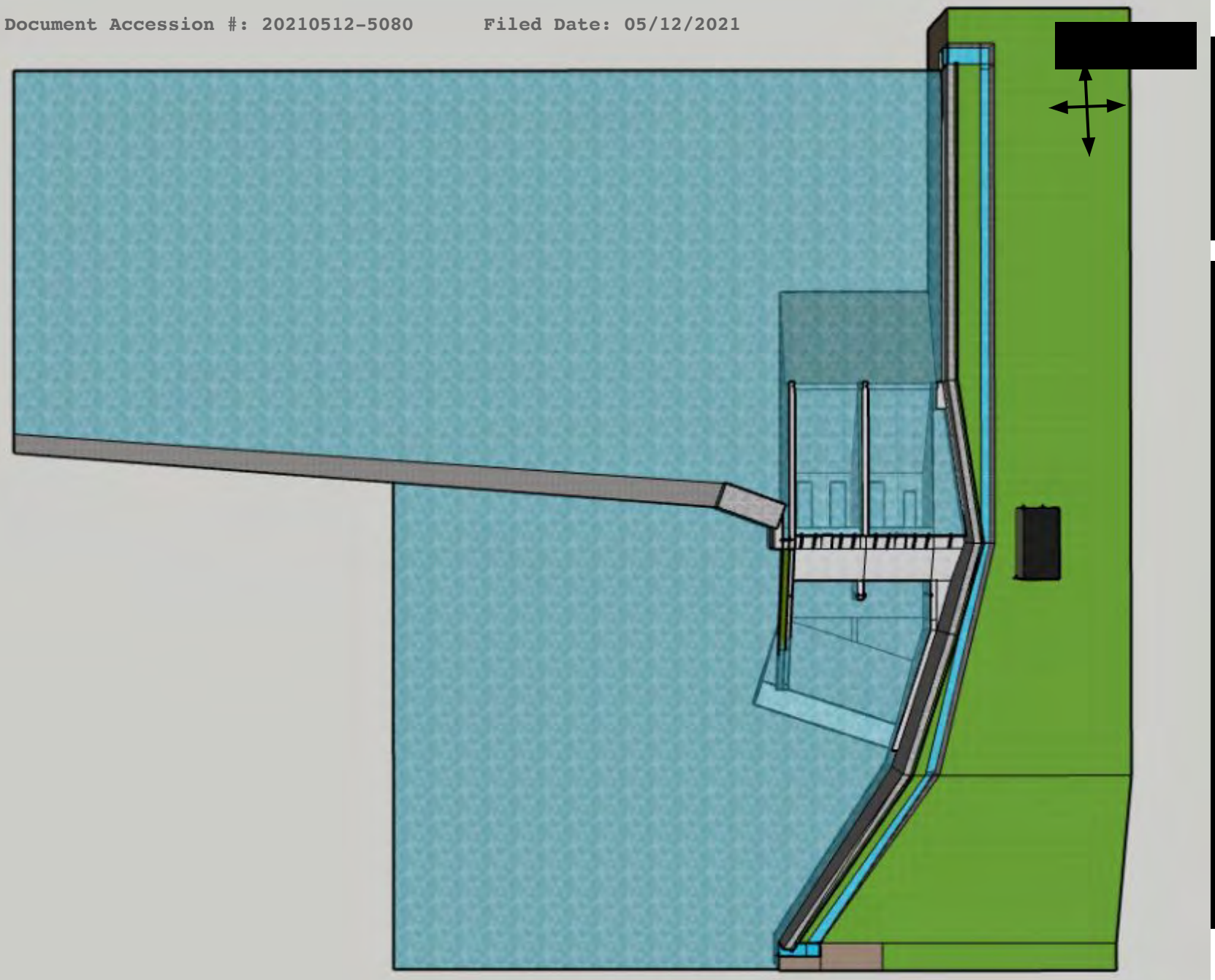

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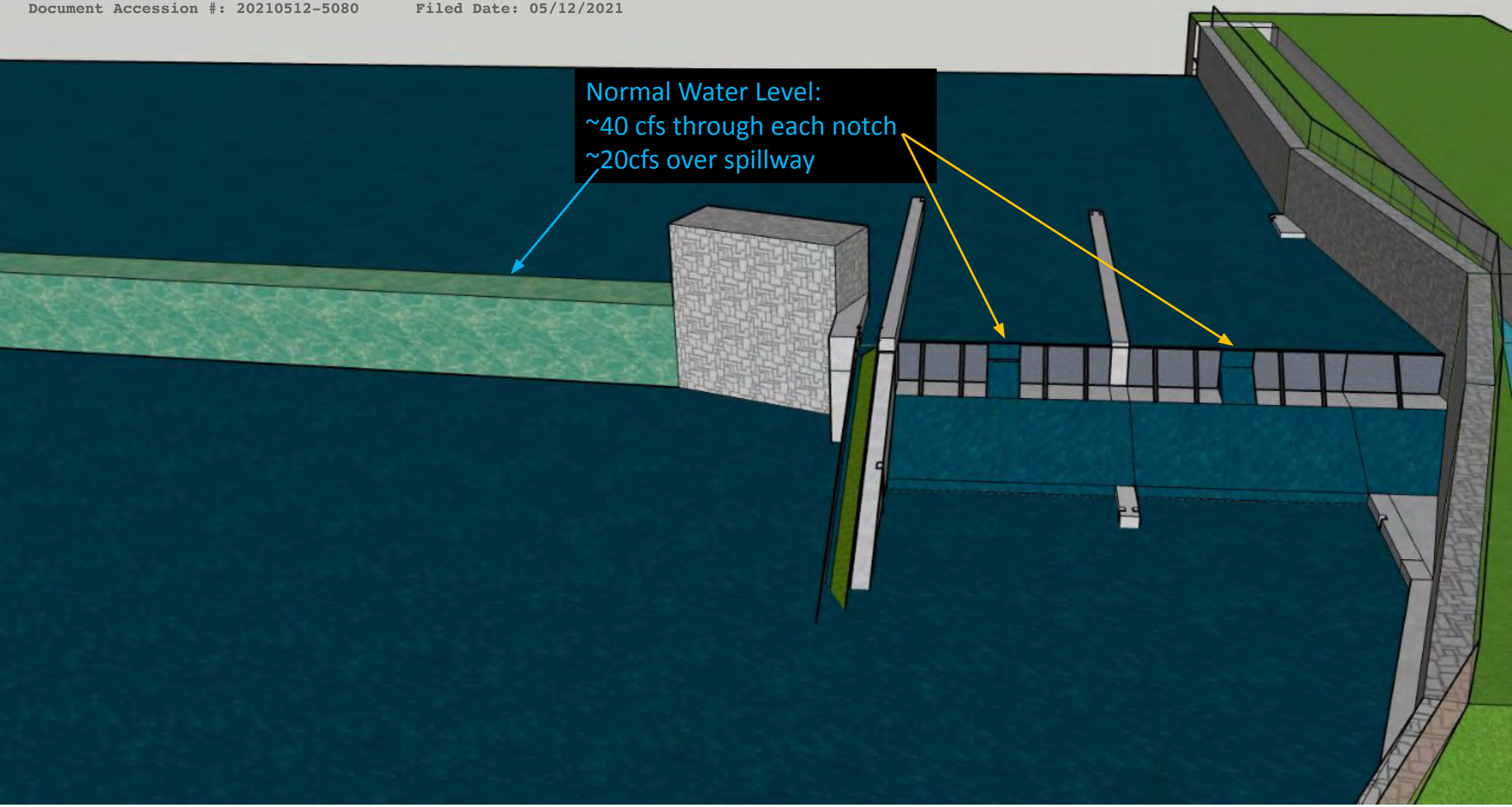

Document Accession #: 20210512-5080 Filed Date: 05/12/2021

Document Content(s)

Carol Wasserman <carol@nehydropower.com>

Draft Hydropower License Application; Ashton Dam; P-14634

23 messages

Carol Wasserman <carol@nehydropower.com> Fri, Jul 16, 2021 at 3:29 PM
To: Melissa Grader <Melissa_Grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>

Good afternoon, Melissa. I have attached to this email a copy of the notice letter transmitting the Draft Hydropower License Application prepared for the Ashton Dam Project; P-14634; following our consultation discussions.

I sent the full Draft Application to your attention, in hard copy and flash drive, by USPS mail earlier today.

NEHC would appreciate your review and comments.

Thanks so much and have a good weekend.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

2021-07-16_CL_USFWS_Draft Application.pdf
193K

Grader, Melissa <melissa_grader@fws.gov> Mon, Aug 16, 2021 at 6:04 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Hello Carol,

I'm not sure exactly where this project is in the FERC permitting realm, but I will assume we have a 90 day timeframe to comment under the TLP regulations. I will strive to provide comments before then but my schedule is very busy the next few weeks.

Regards,

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 I
fws.gov/newengland/FERC/ I facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Friday, July 16, 2021 3:29 PM
To: Grader, Melissa <melissa_grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>
Subject: [EXTERNAL] Draft Hydropower License Application; Ashton Dam; P-14634

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Aug 16, 2021 at 6:13 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Got it in one, Melissa. FERC is treating this as a draft application. When the Service and RIDEM have reviewed and commented, NEHC will respond, incorporate the comments, changes, and responses, and submit as the final license application. We would really like to discuss proposed terms and conditions, in addition to the terms already agreed to with the Service and with RIDEM. If we can have that discussion after your reviews, we could then incorporate those T&Cs into the final application. That would also allow us to request a waiver for a third filing, assuming the Service and RIDEM concur.

I really appreciate the time and attention that has been given to this project, as well as to the Albion project. I know we have been keeping you all busy!

Thanks for the outreach.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Grader, Melissa <melissa_grader@fws.gov> Fri, Sep 17, 2021 at 8:58 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Hello Carol,

Our fish passage engineer has reviewed the draft license application and Exhibit F drawings with respect to the proposed downstream fish passage measures. The Exhibit F plans do not appear to capture the details provided in the license application. Would you please provide drawings showing the proposed conveyance (i.e., weirs, pools, etc.)? Also, would you please confirm that

the proposed project boundary will provide sufficient area for future anadromous fish passage facilities?

Thank you!

Regards,

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 l
fws.gov/newengland/FERC/ l facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Monday, August 16, 2021 6:13 PM
To: Grader, Melissa <melissa_grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>; chuck.horbert <chuck.horbert@dem.ri.gov>; Libby, Alan (DEM) <alan.libby@dem.ri.gov>; McGee, Patrick (DEM) <patrick.mcgee@dem.ri.gov>
Subject: Re: [EXTERNAL] Draft Hydropower License Application; Ashton Dam; P-14634

[Quoted text hidden]

Carol WASSERMAN <carol@nehydropower.com> Fri, Sep 17, 2021 at 10:47 AM
To: Michael Kerr <michael@nehydropower.com>

Relatively minor comments but for needing the updated drawings.
Carol - Sent from my iPhone

Begin forwarded message:

> **From:** "Grader, Melissa" <melissa_grader@fws.gov>
> **Date:** September 17, 2021 at 8:58:40 AM EDT
> **To:** Carol Wasserman <carol@nehydropower.com>
> **Cc:** Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>
> **Subject: Re: [EXTERNAL] Draft Hydropower License Application; Ashton Dam; P-14634**
>
> [Quoted text hidden]

Michael Kerr <michael@nehydropower.com> Fri, Sep 17, 2021 at 10:57 AM
To: Carol WASSERMAN <carol@nehydropower.com>

Thanks Carol and as you wade through your emails, you should see (bcc) the email to Kevin and Eric advising that we have just paid $107K which is what they need to keep Ashton going. So now there should be no issue in you confirming with KA the exact materials you need for the License and to meet Melissa' requirements.
I hope that you've had a great time.
Michael
[Quoted text hidden]
--

Michael Kerr
Founder and CEO

(1) 978 360 2547 (Mobile)

www.nehydropower.com
Skype: michael.kerr11

Carol WASSERMAN <carol@nehydropower.com> Fri, Sep 17, 2021 at 12:24 PM
To: Michael Kerr <michael@nehydropower.com>

Thank you. I saw the email to Kevin with the invoice breakdown. I should get home late tomorrow. Sunday is dedicated to catching up on my emails and my dogs.

Carol - Sent from my iPhone

> On Sep 17, 2021, at 10:57 AM, Michael Kerr <michael@nehydropower.com> wrote:
>
> [Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Sep 21, 2021 at 11:08 AM
To: "Grader, Melissa" <melissa_grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Hi, Melissa. The engineers are revising the current plans now. I should have them to you shortly.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Thu, Sep 30, 2021 at 12:24 PM
To: Patrick Wendt <Patrick@nehydropower.com>

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

---------- Forwarded message ---------
From: **Grader, Melissa** <melissa_grader@fws.gov>
Date: Fri, Sep 17, 2021 at 8:58 AM
Subject: Re: [EXTERNAL] Draft Hydropower License Application; Ashton Dam; P-14634
To: Carol Wasserman <carol@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, chuck.horbert <chuck.horbert@dem.ri.gov>, Libby, Alan (DEM) <alan.libby@dem.ri.gov>, McGee, Patrick (DEM) <patrick.mcgee@dem.ri.gov>

[Quoted text hidden]

Grader, Melissa <melissa_grader@fws.gov> Tue, Oct 5, 2021 at 7:55 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Carol,

Would you also please provide the turbine specifications of the proposed units at the Ashton Project so that we can run our turbine blade strike model on fish species of interest?

As many of these parameters as possible-
runner diameter, # of blades, runner height, turbine discharge (cfs), discharge at optimal efficiency (%), net head, speed, and turbine efficiency.

Many thanks,

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 I
fws.gov/newengland/FERC/ I facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, September 21, 2021 11:08 AM
[Quoted text hidden]

[Quoted text hidden]

Carol WASSERMAN <carol@nehydropower.com> Tue, Oct 5, 2021 at 8:23 AM
To: Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>

Carol - Sent from my iPhone

Begin forwarded message:

> **From:** "Grader, Melissa" <melissa_grader@fws.gov>
> **Date:** October 5, 2021 at 7:55:14 AM EDT
> **To:** Carol Wasserman <carol@nehydropower.com>
> **Cc:** Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Subject: Re: [EXTERNAL] Draft Hydropower License Application; Ashton Dam; P-14634

[Quoted text hidden]

Patrick Wendt <patrick@nehydropower.com> Tue, Oct 5, 2021 at 8:36 AM
To: Carol WASSERMAN <carol@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>

I believe USFWS uses the same BioPA model that Voith provided us a summary for in the beginning. I'll dig up the numbers this morning.

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Oct 5, 2021 at 8:40 AM
To: Patrick Wendt <patrick@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

Thanks, Pat. I think that RIDEM is simply going to ride Melissa's coattails, so the sooner we get these numbers and the revised exhibits to her, the sooner we will be able to get their comments incorporated and beg for concurrences.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Oct 5, 2021 at 10:17 AM
To: "Grader, Melissa" <melissa_grader@fws.gov>, Patrick Wendt <patrick@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, "chuck.horbert" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>
Bcc: Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>

We are compiling the data now, Melissa. I will get that out along with a revision to the fish passage descriptions addressing your earlier comments and the most current Exhibits F and G.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Patrick Wendt <patrick@nehydropower.com> Tue, Oct 5, 2021 at 10:25 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

Carol,

I attached a spreadsheet with the info Melissa was asking for. The only piece I dont have is the runner height. I also attached the performance diagrams for both turbines.

Voith had run BioPA analysis on our turbines, assuming a 6" fish length salmon and steelhead. Expected survival was 80% for the smaller unit and 87% for the larger units.

-Patrick
[Quoted text hidden]

--
Patrick Wendt
Environmental Hydro Specialist

New England Hydropower Company, LLC

Patrick@NEHydropower.com
www.NEHydropower.com
+1 (203)-980-2138
Skype: Patrick_10282

3 attachments

Streamdiver specs.xlsx
10K

1xSD-10.15_Performance Diagram.pdf
33K

3xSD 13.10_Performance Diagram.pdf
33K

Patrick Wendt <patrick@nehydropower.com> Tue, Oct 5, 2021 at 10:28 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

I should have added that we are adding a 1/2 in spacing trash rack. Which was not taken into account when Voith ran their analysis. So our expected survival would be much better because of the exclusion.
[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Oct 5, 2021 at 10:30 AM
To: Patrick Wendt <patrick@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

This is great. Once we have (or approximate) the runner height, I will forward to Melissa. The format is great.

I wasn't planning on forwarding the Voith prototype information unless you think it will be of use to the agencies.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Patrick Wendt <patrick@nehydropower.com> Tue, Oct 5, 2021 at 10:37 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

I do think it could be helpful to understand the operational range. But if there's a reason not to give them this information then they don't need it.

I'll reach out to Voith now and see if they can provide me with the runner height.
[Quoted text hidden]

Carol WASSERMAN <carol@nehydropower.com> Tue, Oct 5, 2021 at 10:40 AM
To: Patrick Wendt <patrick@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

I will go with whatever you recommend and am grateful for the insights.

Carol - Sent from my iPhone

> On Oct 5, 2021, at 10:37 AM, Patrick Wendt <patrick@nehydropower.com> wrote:
>
> [Quoted text hidden]

Michael Kerr <michael@nehydropower.com> Tue, Oct 5, 2021 at 11:34 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Patrick Wendt <patrick@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

Carol,
I've just had Pat in on my weekly call with Voith and so he and Dan Olsen have just clarified what is needed.
Michael
[Quoted text hidden]
[Quoted text hidden]

Patrick Wendt <patrick@nehydropower.com> Tue, Oct 5, 2021 at 11:40 AM
To: Michael Kerr <michael@nehydropower.com>, Carol Wasserman <carol@nehydropower.com>

Carol,

Dan thinks Melissa is asking for the centerline of the runner as this will determine the pressure associated with it. Which I think makes alot of sense.
We have that info. I'll fix the spreadsheet and get that to you.

If Melissa needs other info on the runner height, she will just need to clarify what she's looking for.

[Quoted text hidden]

Carol WASSERMAN <carol@nehydropower.com> Tue, Oct 5, 2021 at 12:29 PM
To: Patrick Wendt <patrick@nehydropower.com>
Cc: Michael Kerr <michael@nehydropower.com>

Great, thank you.

Carol - Sent from my iPhone
[Quoted text hidden]

Patrick Wendt <patrick@nehydropower.com> Tue, Oct 5, 2021 at 2:07 PM
To: Carol WASSERMAN <carol@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

Carol,

I spoke with Voith, and they believe Melissa is looking for the centerline of the runner. So I included that in the file attached. If she needs any other information let me know.

-Patrick
[Quoted text hidden]

Streamdiver specs.xlsx
11K

Carol Wasserman <carol@nehydropower.com>

Response to Request for Turbine Specifications

2 messages

Carol Wasserman <carol@nehydropower.com> Tue, Oct 5, 2021 at 2:43 PM
To: Melissa Grader <Melissa_Grader@fws.gov>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>
Bcc: Michael Kerr <michael@nehydropower.com>, Carol Wasserman <carol@nehydropower.com>

Melissa:

You requested the following information this morning concerning the SDs for the USFWS modeling work:

Carol,

Would you also please provide the turbine specifications of the proposed units at the Ashton Project so that we can run our turbine blade strike model on fish species of interest?

As many of these parameters as possible-
runner diameter, # of blades, runner height, turbine discharge (cfs), discharge at optimal efficiency (%), net head, speed, and turbine efficiency.

Many thanks,

Melissa Grader

Patrick compiled the information in the attached spreadsheet. I hope this works for the model. I have also attached the manufacturer's ranges in one and three dimensions for your reference.

Please let me know if you have any questions or you would like additional information.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

3 attachments

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11K

1xSD-10.15_Performance Diagram.pdf
33K

3xSD 13.10_Performance Diagram.pdf
33K

Grader, Melissa <melissa_grader@fws.gov> Tue, Oct 5, 2021 at 5:37 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>

Excellent - thank you very much Carol and Patrick!

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 l
fws.gov/newengland/FERC/ l facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, October 5, 2021 2:43 PM
To: Grader, Melissa <melissa_grader@fws.gov>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>; Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>; Horbert, Chuck (DEM) <Chuck.Horbert@dem.ri.gov>; Libby, Alan (DEM) <alan.libby@dem.ri.gov>; McGee, Patrick (DEM) <patrick.mcgee@dem.ri.gov>
Subject: [EXTERNAL] Response to Request for Turbine Specifications

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Response to Request for Turbine Specifications

2 messages

Carol Wasserman <carol@nehydropower.com> Tue, Oct 5, 2021 at 2:43 PM
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Bcc: Michael Kerr <michael@nehydropower.com>, Carol Wasserman <carol@nehydropower.com>

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Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

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Excellent - thank you very much Carol and Patrick!

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 l
fws.gov/newengland/FERC/ l facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, October 5, 2021 2:43 PM
To: Grader, Melissa <melissa_grader@fws.gov>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>; Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>; Horbert, Chuck (DEM) <Chuck.Horbert@dem.ri.gov>; Libby, Alan (DEM) <alan.libby@dem.ri.gov>; McGee, Patrick (DEM) <patrick.mcgee@dem.ri.gov>
Subject: [EXTERNAL] Response to Request for Turbine Specifications

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Ashton Dam; P-14634; Final Application Response to Request for Additional Information

1 message

Carol Wasserman <carol@nehydropower.com> Fri, Oct 8, 2021 at 12:06 PM
To: Melissa Grader <Melissa_Grader@fws.gov>
Cc: "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>
Bcc: Carol Wasserman <carol@nehydropower.com>

Hi, Melissa. Transmitted here is the information your requested on September 17th:

Grader, Melissa Fri, Sep 17, 8:58 AM Reply
to me, Glendon, chuck.horbert, Alan, Patrick

Hello Carol,

Our fish passage engineer has reviewed the draft license application and Exhibit F drawings with respect to the proposed downstream fish passage measures. The Exhibit F plans do not appear to capture the details provided in the license application. Would you please provide drawings showing the proposed conveyance (i.e., weirs, pools, etc.)? Also, would you please confirm that the proposed project boundary will provide sufficient area for future anadromous fish passage facilities?

Thank you!

Regards,

Melissa Grader

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

3 attachments

4161-008 EXHIBIT F BINDER 10-06-21.pdf

1242K

2021-10-06_G-1, Project Boundary.pdf
2836K

2021-10-08_Fish Passage Narrative Revisions.docx
15K

Carol Wasserman <carol@nehydropower.com>

Ashton Dam; P-14634; Final Application Response to Request for Additional Information

1 message

Carol Wasserman <carol@nehydropower.com> Fri, Oct 8, 2021 at 12:06 PM
To: Melissa Grader <Melissa_Grader@fws.gov>
Cc: "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>
Bcc: Carol Wasserman <carol@nehydropower.com>

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Grader, Melissa Fri, Sep 17, 8:58 AM Reply

to me, Glendon, chuck.horbert, Alan, Patrick

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Thank you!

Regards,

Melissa Grader

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

3 attachments

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2021-10-06_G-1, Project Boundary.pdf
2836K

2021-10-08_Fish Passage Narrative Revisions.docx
15K

Carol Wasserman <carol@nehydropower.com>

Guidance

6 messages

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 1:35 PM
To: Melissa Grader <Melissa_Grader@fws.gov>

Hi, Melissa. I am writing because I would like to get the Service's insight concerning fish passage using the Voith Streamdiver turbine. We have run into a flooding issue at our Ashton Hydroelectric Project. The ASTs will raise the flood profile in a way we cannot engineer around.

We are going to have to modify our license application. In the interim, I am trying to identify the best fish passage approaches using these turbines. I have attached some background here.

Patrick and I have gotten rather proficient with the AST, but this is a new technology to us. I have reviewed a proposed 10-turbine facility at Notre Dame (FERC # 7569) but there are no existing studies. Notre Dame will need to perform them once the facility begins generation.

Any guidance you could point me to would be very helpful.

Thanks.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

StreamDiver.pdf
383K

Grader, Melissa <melissa_grader@fws.gov> Tue, Jan 14, 2020 at 1:49 PM
To: Carol Wasserman <carol@nehydropower.com>

Hi Carol,

I'm not familiar with that turbine type. I'm consulting with our hydraulic engineers and will get back to you soon.

Melissa Grader
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service - New England Field Office
103 East Plumtree Road
Sunderland, MA 01375
413-548-8002 x8124
melissa_grader@fws.gov

<*)))< <*)))< <*)))< <*)))<

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 1:52 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>

Thank you so much. I really need to understand this equipment in order to prepare a credible impact analysis and proposed requirements. The best way to do that is to go to the people who really do understand fish passage. I appreciate it.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Grader, Melissa <melissa_grader@fws.gov> Tue, Jan 14, 2020 at 2:53 PM
To: Carol Wasserman <carol@nehydropower.com>

Carol, This is the response one of our hydraulic engineers sent me:

> StreamDiver is essentially the next generation of bulb turbine (i.e., generator/turbine unit is in one integrated housing that is submerged). So like a bulb, you (typically) eliminate the need for scroll cases and an above water generator (i.e., PH can be small). All else being equal, it might be marginally safer to fish because there are no wickets (I think) or scroll case. But it still has stay vanes and a turbine blade. And fish mortality is largely due to rpm, blade diameter, and blade shape. I'm not aware of any biological tests that have been performed on the StreamDiver... but I haven't looked.

So, this does not seem like a technology that would qualify as "fish friendly"... I sat in on a webinar last September where Natel Energy went over a new fish friendly turbine they have been working on. You may want to check that out: natelenergy.com/turbines (the Restoration Hydro Turbine).

If the issue with the AST is loss of flood flow capacity, couldn't you modify the dam to add in additional spill capacity to compensate?

Melissa Grader
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service - New England Field Office
103 East Plumtree Road
Sunderland, MA 01375
413-548-8002 x8124
melissa_grader@fws.gov

<*)))< <*)))< <*)))< <*)))<

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 2:58 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>

Thank you for responding so quickly. It is not a loss of flood flow capacity. As designed, the ASTs result in increasing flood height by about 3.18 inches. We have tried to revise around that, but it cannot be resolved using this configuration without risking the stability of the dam.

I am going to go to the Natel site you suggested, but I think this is going to be a difficult decision. Again, thank you for your help.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Jan 14, 2020 at 3:59 PM
To: Patrick Wendt <Patrick@nehydropower.com>

fyi

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Ashton License Application - RIDEM Comments and Responses

3 messages

Carol Wasserman <carol@nehydropower.com> Wed, Oct 20, 2021 at 10:50 AM
To: Melissa Grader <Melissa_Grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Good morning, Melissa. I was checking in about whether the Service had completed its modeling and if you had additional thoughts or comments regarding proposed T&Cs or any other issue?

We are compiling a responsiveness summary to be included as part of the final license application. We are also hoping to incorporate any other Service comments or recommendations in order to request a waiver from further pre-application consultations.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Grader, Melissa <melissa_grader@fws.gov> Wed, Oct 20, 2021 at 12:28 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Unfortunately Carol I am absolutely swamped with FERC work at the moment. I do recommend using licensing terms versus exemption-from-licensing terms, to avoid confusion. The FWS will not be submitting terms and conditions for this project if you will be seeking a license. We will submit 10j recommendations and a preliminary (and eventually, a modified) fishway prescription, very similar to what we provided back in 2019 under your previous proposal (but updated, to reflect the new conditions/proposal).

Thank you for reaching out.

Regards,

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 I
fws.gov/newengland/FERC/ I facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Wednesday, October 20, 2021 10:50 AM
To: Grader, Melissa <melissa_grader@fws.gov>

Cc: Glendon Barnes <glendon@nehydropower.com>; Patrick Wendt <Patrick@nehydropower.com>
Subject: [EXTERNAL] Ashton License Application - RIDEM Comments and Responses

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Wed, Oct 20, 2021 at 12:31 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

That's great, Melissa. We will look forward to receiving the 10(j) recommendations and preliminary fishway prescription.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Response to RIDEM Comments - Ashton Dam; P-14634

5 messages

Carol Wasserman <carol@nehydropower.com> Thu, Oct 14, 2021 at 12:46 PM
To: "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>, Melissa Grader <Melissa_Grader@fws.gov>
Cc: "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Frazar, Sarah (DEM)" <Sarah.Frazar@dem.ri.gov>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "DiPrete, Megan (DEM)" <Megan.DiPrete@dem.ri.gov>, Phillip Edwards <Phillip.Edwards@dem.ri.gov>, John Baummer <John.Baummer@ferc.gov>
Bcc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Christopher DOvidio <chris@dovidiolaw.com>, Carol Wasserman <carol@nehydropower.com>

NEHC, with this transmission, responds to RIDEM's 10/06/21 comments on the draft license application proffered in July 2021. Given the overlapping interests of the U.S. Fish and Wildlife Service with the issues raised in RIDEM's comments, NEHC has developed its response to the comments in the form of Proposed Preliminary Terms and Conditions, as contemplated under Section 30 (c) of the Federal Power Act. NEHC invites any additional proposed T&Cs from either the Service or from RIDEM.

NEHC recently provided to the Service and RIDEM with the specifications of the StreamDiver turbines and revised Exhibit G (project boundary) and Exhibit F (Proposed Conditions) drawings. NEHC will file the digital files with FERC upon submission of the final license application.

Assuming incorporation of additional T&Cs, or responses to comments, into the final application, which will be filed this month, we will request that the Service and RIDEM concur on our request to waive further consultation stages.

Please let me know if you have any questions or concerns with this approach.

Thank you.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

2 attachments

2021-10-14_Proposed T&Cs.docx
55K

Comment 2-SDR Excerpt.pdf
3178K

Grader, Melissa <melissa_grader@fws.gov> Thu, Oct 14, 2021 at 1:10 PM
To: Carol Wasserman <carol@nehydropower.com>, "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>
Cc: "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Frazar, Sarah (DEM)" <sarah.frazar@dem.ri.gov>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "DiPrete, Megan (DEM)" <Megan.DiPrete@dem.ri.gov>, "Edwards, Phillip (DEM)" <phillip.edwards@dem.ri.gov>, John Baummer <John.Baummer@ferc.gov>

Hi Carol,

Would you clarify whether NEHC is seeking an exemption or a license, please?

Melissa Grader
Fish and Wildlife Biologist
Migratory Fish/Hydropower Program
U.S. Fish and Wildlife Service/New England Field Office
103 East Plumtree Road, Sunderland, MA 01375
p: (413) 548-8002 ext 8124 I
fws.gov/newengland/FERC/ I facebook.com/usfwsnortheast/

From: Carol Wasserman <carol@nehydropower.com>
Sent: Thursday, October 14, 2021 12:46 PM
To: Horbert, Chuck (DEM) <Chuck.Horbert@dem.ri.gov>; Grader, Melissa <melissa_grader@fws.gov>
Cc: Libby, Alan (DEM) <alan.libby@dem.ri.gov>; McGee, Patrick (DEM) <patrick.mcgee@dem.ri.gov>; Frazar, Sarah (DEM) <sarah.frazar@dem.ri.gov>; Beck, Eric (DEM) <eric.beck@dem.ri.gov>; DiPrete, Megan (DEM) <Megan.DiPrete@dem.ri.gov>; Edwards, Phillip (DEM) <phillip.edwards@dem.ri.gov>; John Baummer <John.Baummer@ferc.gov>
Subject: [EXTERNAL] Response to RIDEM Comments - Ashton Dam; P-14634

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Thu, Oct 14, 2021 at 1:11 PM
To: "Grader, Melissa" <melissa_grader@fws.gov>
Cc: "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Frazar, Sarah (DEM)" <sarah.frazar@dem.ri.gov>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "DiPrete, Megan (DEM)" <Megan.DiPrete@dem.ri.gov>, "Edwards, Phillip (DEM)" <phillip.edwards@dem.ri.gov>, John Baummer <John.Baummer@ferc.gov>

This will be a license, Melissa.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

John Baummer <John.Baummer@ferc.gov> Thu, Oct 14, 2021 at 2:57 PM
To: Carol Wasserman <carol@nehydropower.com>

CUI

Hi Carol,

Just a reminder to be cautious of sharing CEII information with anyone that NEHC did not specifically give permission to. I didn't see anything in the email attachment which could be construed as CEII but I did see it flagged as CEII.

I think you might have confused FWS a bit when you said 30(c) conditions in your email. Those are reserved for exemptions from licensing. Any conditions you propose for an original hydropower license would be considered proposed terms and conditions, not 30(c) conditions. Under this process, FWS would file section 10(j) recommendations, and preliminary fishway prescriptions. DEM would file recommendations and then issue a 401 with mandatory conditions.

Thanks!

John

From: Carol Wasserman <carol@nehydropower.com>
Sent: Thursday, October 14, 2021 12:46 PM

[Quoted text hidden]

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Thu, Oct 14, 2021 at 3:03 PM
To: John Baummer <John.Baummer@ferc.gov>

I spoke with Melissa at the USFWS and clarified that this is a license application.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

NPS Consultation Discussion - Ashton Dam; P-14634

5 messages

Carol Wasserman <carol@nehydropower.com> Fri, Jan 28, 2022 at 5:46 PM
To: "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, kevin_klyberg@nps.gov, kevin_mendik@nps.gov, Duncan_may@nps.gov
Cc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

On behalf of NEHC, please accept our thanks for the time and attention you have devoted to us with respect to consulting about the NPS Study Request for the Ashton Dam Project. I have no doubt we will be in touch again soon.

As discussed, NEHC will consult further with our structural engineers and CRM to develop the Historic Structures Study and Stability Analysis, as well as the Construction Management and Public Access Plan directed at the identified Fundamental Resources and the Important Resources and Values. We. understand the emphasis placed on erosion issues, particularly potential impacts on the Blackstone Canal, as well as the effects of flow elevations. We also understand the goals of the PAP concerning public use of the trails and the portage, although there isn't an obvious template available.

We look forward to receiving the examples offered to us by Kevin Mendik.

Stay warm and safe over the next few days.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com> Fri, Jan 28, 2022 at 8:47 PM
To: Christopher DOvidio <chris@dovidiolaw.com>

fyi

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Mendik, Kevin R <Kevin_Mendik@nps.gov> Fri, Feb 4, 2022 at 2:26 PM

To: Carol Wasserman <carol@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, "Duncan_may@nps.gov" <Duncan_may@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

Carol and all, I wanted to follow up and copy you on FERC's License Order for the Morgantown Project. See Article 412 Construction Access Plan. This should offer a template for the Ashton project.

Regards,

From: Carol Wasserman <carol@nehydropower.com>
Sent: Friday, January 28, 2022 5:46 PM
To: Breitkreutz, William E <Eric_Breitkreutz@nps.gov>; Krieger, Rebekah <Rebekah_Krieger@nps.gov>; Klyberg, Kevin C <Kevin_Klyberg@nps.gov>; Mendik, Kevin R <Kevin_Mendik@nps.gov>; Duncan_may@nps.gov <Duncan_may@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>; Michael Kerr <michael@nehydropower.com>; Jeffrey Mobed <jeffrey@nehydropower.com>
Subject: [EXTERNAL] NPS Consultation Discussion - Ashton Dam; P-14634

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FERC Lic Order Morgantown 92917.docx
154K

Mendik, Kevin R <Kevin_Mendik@nps.gov> Fri, Feb 4, 2022 at 2:28 PM
To: Carol Wasserman <carol@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, "Hay, Duncan E" <Duncan_Hay@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

Also, please note that Duncan Hay has an incorrect email address. I've corrected it on this email. Duncan_Hay@nps.gov

---

From: Mendik, Kevin R <Kevin_Mendik@nps.gov>
Sent: Friday, February 4, 2022 2:26 PM
To: Carol Wasserman <carol@nehydropower.com>; Breitkreutz, William E <Eric_Breitkreutz@nps.gov>; Krieger, Rebekah <Rebekah_Krieger@nps.gov>; Klyberg, Kevin C <Kevin_Klyberg@nps.gov>; Duncan_may@nps.gov <Duncan_may@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>; Michael Kerr <michael@nehydropower.com>; Jeffrey Mobed <jeffrey@nehydropower.com>
Subject: Re: [EXTERNAL] NPS Consultation Discussion - Ashton Dam; P-14634

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Fri, Feb 4, 2022 at 4:07 PM
To: "Mendik, Kevin R" <Kevin_Mendik@nps.gov>
Cc: "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, "Duncan_may@nps.gov" <Duncan_may@nps.gov>, Patrick Wendt

<Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

Kevin, thank you. We will get to work on this and I am sure we will have questions.

Have a warm weekend.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Mendik, Kevin R <Kevin_Mendik@nps.gov> Fri, Feb 4, 2022 at 2:26 PM
To: Carol Wasserman <carol@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, "Duncan_may@nps.gov" <Duncan_may@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

Carol and all, I wanted to follow up and copy you on FERC's License Order for the Morgantown Project. See Article 412 Construction Access Plan. This should offer a template for the Ashton project.

Regards,

From: Carol Wasserman <carol@nehydropower.com>
Sent: Friday, January 28, 2022 5:46 PM
To: Breitkreutz, William E <Eric_Breitkreutz@nps.gov>; Krieger, Rebekah <Rebekah_Krieger@nps.gov>; Klyberg, Kevin C <Kevin_Klyberg@nps.gov>; Mendik, Kevin R <Kevin_Mendik@nps.gov>; Duncan_may@nps.gov <Duncan_may@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>; Michael Kerr <michael@nehydropower.com>; Jeffrey Mobed <jeffrey@nehydropower.com>
Subject: [EXTERNAL] NPS Consultation Discussion - Ashton Dam; P-14634

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FERC Lic Order Morgantown 92917.docx
154K

Mendik, Kevin R <Kevin_Mendik@nps.gov> Fri, Feb 4, 2022 at 2:28 PM
To: Carol Wasserman <carol@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, "Hay, Duncan E" <Duncan_Hay@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

Also, please note that Duncan Hay has an incorrect email address. I've corrected it on this email. Duncan_Hay@nps.gov

---

From: Mendik, Kevin R <Kevin_Mendik@nps.gov>
Sent: Friday, February 4, 2022 2:26 PM
To: Carol Wasserman <carol@nehydropower.com>; Breitkreutz, William E <Eric_Breitkreutz@nps.gov>; Krieger, Rebekah <Rebekah_Krieger@nps.gov>; Klyberg, Kevin C <Kevin_Klyberg@nps.gov>; Duncan_may@nps.gov <Duncan_may@nps.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>; Michael Kerr <michael@nehydropower.com>; Jeffrey Mobed <jeffrey@nehydropower.com>
Subject: Re: [EXTERNAL] NPS Consultation Discussion - Ashton Dam; P-14634

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Fri, Feb 4, 2022 at 4:07 PM

NEHC

Carol Wasserman <carol@nehydropower.com>

NPS Conference Call; Friday 2/25

3 messages

Carol Wasserman <carol@nehydropower.com> Thu, Feb 17, 2022 at 3:47 PM
To: "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Hay, Duncan E" <Duncan_Hay@nps.gov>, "Mendik, Kevin R" <kevin_mendik@nps.gov>
Cc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, Glendon Barnes <glendon@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Eric:

NEHC, our excellent structural engineer, and our CRM are all available anytime before 2:30 on Friday, 2/25.

If you could specify a time for NPS, I will schedule and send out invitations for Microsoft Teams.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Thu, Feb 17, 2022 at 5:15 PM
To: Carol Wasserman <carol@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Hay, Duncan E" <Duncan_Hay@nps.gov>, "Mendik, Kevin R" <Kevin_Mendik@nps.gov>
Cc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, Glendon Barnes <glendon@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Carol, how about 1:00pm?

Rebekah Krieger (she/her/hers)
Cultural Resource Specialist
Blackstone River Valley National Historical Park
Roger Williams National Memorial
67 Roosevelt Ave, Pawtucket, Rhode Island 02860
(401) 603-6624 - Phone NEW NUMBER
www.nps.gov/rowi www.nps.gov/blrv

From: Carol Wasserman <carol@nehydropower.com>
Sent: Thursday, February 17, 2022 3:47:19 PM
To: Breitkreutz, William E <Eric_Breitkreutz@nps.gov>; Krieger, Rebekah <Rebekah_Krieger@nps.gov>; Hay, Duncan E <Duncan_Hay@nps.gov>; Mendik, Kevin R <Kevin_Mendik@nps.gov>
Cc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>; Glendon Barnes <glendon@nehydropower.com>; Jeffrey Mobed <jeffrey@nehydropower.com>; Patrick Wendt

NEHC

Carol Wasserman <carol@nehydropower.com>

NPS Discussion; Study Request Attached

1 message

Carol Wasserman <carol@nehydropower.com> Fri, Feb 25, 2022 at 12:38 PM
To: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, solausen@palinc.com, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Hay, Duncan E" <Duncan_Hay@nps.gov>, "Mendik, Kevin R" <kevin_mendik@nps.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

In order to focus today's discussion, I am attaching the NPS Study Request concerning the Historic Structures Study and Stability Analysis.

The primary confusion concerns the skills required to respond to the Objectives 1 - 4 laid out in the request.

Talk shortly.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

NPS Study Request.pdf
137K

NEHC

Carol Wasserman <carol@nehydropower.com>

Ashton Dam Documents

2 messages

Carol Wasserman <carol@nehydropower.com> Tue, Apr 19, 2022 at 2:04 PM
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Rebekah:

I was preparing copies of the Supporting Design Report, the Soil Erosion and Sediment Control Plan, and the Flood Report when I was advised that we will have to make some changes to the Project plans. National Grid, the Interconnection Service Provider, just notified us that it has a new issue with respect to the interconnection route it approved last year.

As these plans and reports could be affected by a National Grid change, I want to wait until this is resolved to give you the final versions.

I will keep you updated on this as well as on the work being performed by the Public Archeology Laboratory.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Wed, Apr 20, 2022 at 12:35 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Glendon Barnes <glendon@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>

Carol, thanks for the update.

Rebekah

Rebekah Krieger (she/her/hers)
Cultural Resources Specialist
Blackstone River Valley National Historical Park / Roger Williams National Memorial
67 Roosevelt Ave, Pawtucket, Rhode Island 02860
(401) 603-6624 - Mobile

www.nps.gov/rowi
www.nps.gov/blrv

NEHC

Carol Wasserman <carol@nehydropower.com>

Blackstone Canal Information

3 messages

Carol Wasserman <carol@nehydropower.com> Fri, May 13, 2022 at 1:09 PM
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>
Bcc: Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Hi, Rebekah. In advance of our field visit, I am mailing out today a series of documents that will provide extensive background and data on the Ashton Dam Project and associated structures. This includes information concerning structural stability, flows, erosion issues, flooding, etc.

I would, in the ordinary course, forward this information electronically. However, in dealing with the NPS, the SHPOs and the THPOs, we routinely provide the information in hard copy, both for security and in acknowledgement of the resources needed to download and print these documents.

I am sending you the following:

Stormwater Management Report
Preliminary Supporting Design Report
Erosion and Sedimentation Control Plan
Flooding Analysis
BLackstone Canal - Hydraulic Impacts Memo

The included plans are complete BUT for the interconnection. In part due to the March 2021 easement, we have had to revisit the entire interconnection route. We can discuss further when we are onsite; it is much simpler to describe on the ground.

Please let me know the date(s) and time(s) convenient for you to schedule the site visit, preferably the sooner, the better.

Have a good weekend.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Fri, May 13, 2022 at 1:22 PM
To: Carol Wasserman <carol@nehydropower.com>

Carol, thank you. We originally spoke about including a flash drive with the digital files, too, so I hope that will be included. I will discuss the canal site visit with Eric promptly when he returns to the office next week.
Have a great weekend!

Rebekah Krieger (she/her/hers)
Cultural Resource Specialist
Blackstone River Valley National Historical Park

NEHC

Carol Wasserman <carol@nehydropower.com>

Blackstone Canal

5 messages

Carol Wasserman <carol@nehydropower.com> Mon, May 23, 2022 at 9:58 AM
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>

Hi, Rebekah. I am just checking in to confirm you received the documents. We would still like to schedule a site visit with you and our engineers. We also need to prepare and submit a NPS ROW permit application for a portion of the underground interconnection at Ashton.

Whenever you can determine a good date and time for you and your staff, please let me know.

Carol

Carol Wasserman

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"To Every Thing There is a Season..."

NEHC

Carol Wasserman <carol@nehydropower.com>

Thank You

4 messages

Carol Wasserman <carol@nehydropower.com> Tue, Jun 7, 2022 at 9:14 AM
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>

On behalf of our NEHC staff; Jeff,Patrick, Michael; thank you so much for taking the time to explore the Canal and discuss the issue with us, as well as the history and what the future holds for this beautiful area. We are grateful to be a part of it.

We will work with our engineers regarding the most effective methods for supporting the bank and the portage area. We will also discuss the flooding models.

We will keep you updated as we proceed with this process. Please expect questions!

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com> Tue, Jun 7, 2022 at 9:15 AM
To: Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, Michael Kerr <michael@nehydropower.com>

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

[Quoted text hidden]

Breitkreutz, William E <Eric_Breitkreutz@nps.gov> Tue, Jun 7, 2022 at 11:48 PM
To: Carol Wasserman <carol@nehydropower.com>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>

Thank you, Carol. Rebekah and I appreciate you, Michael, Jeff and Patrick traveling down and taking the time to meet with us. We shall look forward to your questions!

NEHC

Carol Wasserman <carol@nehydropower.com>

Ashton Dam - Five Hundred Year Flood

2 messages

Carol Wasserman <carol@nehydropower.com> Thu, Jun 9, 2022 at 9:37 AM
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>
Cc: Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>

After we concluded our site walk on Monday, I asked our engineers at Kleinschmidt Associates about modeling the 500 year flood. Here is their response:

Eric Turgeon 9:17 AM (13 minutes ago) Reply
to me, Austin, Michael, Jeffrey, Patrick, glendon@nehydropower.com, Jennifer

Carol,

The 500-year was a part of the model already, however we didn't include the results as they weren't required. Below is a table summarizing the model results and some commentary below that.

Floodway Analysis - Elevation Summary Table – Pre-Condition versus Post-Condition

Cross-Section	HEC-RAS Station	Location Reference	500-year Pre-Development Water Surface Elevation *	500-year Post-Development Water Surface Elevation *	Change in Water Surface Elevation**
RI_017DSC	42259	~1-mile-upstream of Ashton dam	89.99	89.99	0.00
RI_019USC_D	36490	360-feet-upstream of Ashton dam	85.32	85.34	+0.02
RI_019USF_D	36129	4-feet-upstream of Ashton dam	84.65	84.64	+0.01
RI_019DSF_Dflowc	36114	25-feet-downstream of Ashton dam	84.38	84.36	-0.02

		of Ashton dam			

Note *shown in NAV88

** shown in feet

The results of the floodway analysis indicate that the construction of the proposed hydropower facility and associated site development would result in a minuscule increase in water surface elevation upstream of the project for the 500-year flood. The slight change in water surface elevation upstream of the Ashton dam would not adversely impact any additional structures or public spaces, therefore, no adverse impacts related to flood protection are anticipated to the Blackstone River because of the proposed construction of the hydroelectric power facility at the Ashton dam.

Thanks,

Eric

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Thu, Jun 9, 2022 at 1:09 PM
To: Carol Wasserman <carol@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>
Cc: Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>

Thank you, Carol.

Rebekah Krieger (she/her/hers)
Cultural Resource Specialist
Blackstone River Valley National Historical Park
Roger Williams National Memorial
67 Roosevelt Ave, Pawtucket, Rhode Island 02860
(401) 603-6624 - Phone NEW NUMBER
www.nps.gov/rowi www.nps.gov/blrv

NEHC

Carol Wasserman <carol@nehydropower.com>

Ashton dam study request follow-up

4 messages

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Mon, Jun 13, 2022 at 3:21 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>

Hello Carol,

Per your phone request last Friday, Eric and I have compiled a few thoughts on where we are with the December 21, 2021 study request.

The study request has specific information requests and objectives listed in it (see appendix A, too). We do not know how to further specify what information is missing without have seen some kind of draft, or outline, table of context, summary report, and/or a list of the experts you've consulted and what they will address. You have asked us what is missing, but we haven't seen anything written down yet; we have only had several phone calls and one site visit at which new design changes came to light. The only written materials we've seen so far were documents compiled for the FERC licensing process but not related to historic resources.

1. Last week's revelation that you are exploring trenching through the historic tow path between the canal and the river is a very large change to the initial plan. We are still processing this new information; what other potential significant changes to the design are there which we aren't yet aware?

2. We still haven't seen information that specifically addresses the performance of the canal and the condition of/affects to the projecting stonework at the head of the dam. The reports you provided us with refer to the canal only briefly and describe it as "sealed off" from the river (page 5 and 6, "Ashton Dam Preliminary SDR." We have all agreed that the canal is fed by the river, that water travels through the rip rap at the canal inlet, and that the canal will be affected by changes to the river water levels. We do not know how this impacts the analysis and assumptions made in that report, and have not received information on how this affects the canal infrastructure.

3. We discussed in a phone call but have not seen any further information on the historic materials of the dam and how they may be affected by the demolition of the spillway and building of the river-left turbine bays.

4. We have not yet seen the Public Archaeology Lab report. Will this report discuss the potential trenching through the historic tow path or running wires over the river near the dam? What other information will it encompass? Reading this report will give us a better idea of what information is missing.

Regards,

Rebekah

Rebekah Krieger (she/her/hers)

NEHC

Carol Wasserman <carol@nehydropower.com>

DOI Standards for Treatment of Historic Properties (2017)

3 messages

Carol Wasserman <carol@nehydropower.com> Fri, Jun 24, 2022 at 2:49 PM
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>

Hi, Rebekah. We are using the above guidance in laying out the basis for the ROW permit. The guidance addresses buildings, but I could not find anything in the NPS Technical Series that addresses dams.

If there is another, more appropriate guidance, please let me know.

Have a good weekend.

Carol

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Mon, Jun 27, 2022 at 7:26 AM
To: Carol Wasserman <carol@nehydropower.com>

Hi Carol, we follow the *pSecretary of the Interior's Standards for the Treat of Historic Properties* and the "Guidance" (the long document) that accompanies them.

https://www.nps.gov/tps/standards.htm

This may be what you've cited in the email subject line, not sure.

I don't know if dam-specific guidance but I know the Standards approach encompasses many different types of structures.

Rebekah Krieger (she/her/hers)
Cultural Resource Specialist
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www.nps.gov/rowi www.nps.gov/blrv

From: Carol Wasserman <carol@nehydropower.com>
Sent: Friday, June 24, 2022 2:49:56 PM
To: Krieger, Rebekah <Rebekah_Krieger@nps.gov>
Subject: [EXTERNAL] DOI Standards for Treatment of Historic Properties (2017)

NEHC

Carol Wasserman <carol@nehydropower.com>

Photo Library of Blackstone Canal Tow Path Near Ashton Dam

2 messages

Jeffrey Mobed <jeffrey@nehydropower.com> Mon, Jun 27, 2022 at 11:43 PM
To: eric_breitkreutz@nps.gov, rebekah_krieger@nps.gov, canoeman60@yahoo.com
Cc: Carol Wasserman <carol@nehydropower.com>, Michael Kerr <michael@nehydropower.com>

Eric, Rebekah, John,
When we met at Ashton Dam earlier this month I mentioned that NEHC had assembled a "walking tour" of photographs along the towpath beside the canal and that I would provide a link for them. You may have to "log in" to Google Chrome with the email address used to receive this link. If you have any problems accessing the photos, please call or drop me a line and I will make other arrangements to get them to you.

This is the embedded link: https://drive.google.com/drive/folders/1dhbfuigl6AtgsjKtaCyVmoX_WRdb4wo-?usp=sharing

The purpose of this photo library is to facilitate the discussions we are having about the park area in the vicinity of Ashton Dam by providing a common reference of photographs. Please let me know if there are any additions to this library that you would like to see.
Yours,
-Jeff

Jeffrey N. Mobed
Director of Engineering Projects

NEHC New England Hydropower Company, LLC

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www.nehydropower.com

Krieger, Rebekah <Rebekah_Krieger@nps.gov> Tue, Jun 28, 2022 at 9:10 AM
To: Jeffrey Mobed <jeffrey@nehydropower.com>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "canoeman60@yahoo.com" <canoeman60@yahoo.com>
Cc: Carol Wasserman <carol@nehydropower.com>, Michael Kerr <michael@nehydropower.com>

Jeff, thank you, I am able to access the photos.

Rebekah

Rebekah Krieger (she/her/hers)
Cultural Resources Specialist
Blackstone River Valley National Historical Park / Roger Williams National Memorial
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www.nps.gov/blrv

NEHC

Carol Wasserman <carol@nehydropower.com>

Ashton Dry Laid Stone Wall

2 messages

Carol Wasserman <carol@nehydropower.com>
To: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>

Thu, Jun 30, 2022 at 11:34 AM

Hi, Rebekah. I am assuming the picture below illustrates the approximately 1820 dry laid stone walls to which you referred yesterday, but I wanted to confirm.

In also have another question. Does NPS know who owns or controls the pedestrian footbridge near the head of the Canal?

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

Krieger, Rebekah <Rebekah_Krieger@nps.gov>
To: Carol Wasserman <carol@nehydropower.com>

Thu, Jun 30, 2022 at 3:34 PM

Hi Carol,

Yes, those are the dry laid stone walls to which I referred.

NEHC

Carol Wasserman <carol@nehydropower.com>

No National Park Service Support for Canal Tow Path Conduit

5 messages

Breitkreutz, William E <Eric_Breitkreutz@nps.gov> Thu, Jul 21, 2022 at 11:42 PM
To: Jeffrey Mobed <jeffrey@nehydropower.com>, Michael Kerr <michael@nehydropower.com>, Carol Wasserman <carol@nehydropower.com>
Cc: "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, David Newton <davidj12657@verizon.net>, "canoeman60@yahoo.com" <canoeman60@yahoo.com>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, "Rice, Kevin M" <kevin_rice@nps.gov>

Carol, Michael and Jeffrey,

After gleaning what I could following our site visit to the Ashton Dam and Blackstone Canal in June, consulting with our partner organizations and staff, and reviewing the National Register of Historic Places listings of Blackstone River State Park structures and Ashton Village and Dam, I have come to the conclusion that New England Hydropower Company's as-of-now still informal proposal to lay an underground conduit along the Blackstone Canal tow path from the Ashton Dam south would cause significant damage to the historic structure and archeological fabric of the Blackstone Canal in Blackstone River State Park. In so doing, it would greatly diminish the historic integrity of the Blackstone Canal, a Fundamental Resource of Blackstone River Valley National Historical Park.

As a result, I write to inform you that I cannot support your company's proposal, nor can I in good conscience approve of any construction project involving conduit buried along the canal tow path under the terms of the preservation and conservation easement the National Park Service holds on the portion of Blackstone River State Park under discussion.

Respectfully,

Eric Breitkreutz

Wm. Eric Breitkreutz

Superintendent

Blackstone River Valley National Historical Park

Roger Williams National Memorial

282 North Main Street

Providence, Rhode Island 02903

617/794-1986 - Mobile

Carol Wasserman <carol@nehydropower.com>

NEHC Response to July 21, 2022 Email

1 message

Carol Wasserman <carol@nehydropower.com> Wed, Jul 27, 2022 at 11:32 AM
To: "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, Michael Kerr <michael@nehydropower.com>, "Krieger, Rebekah" <Rebekah_Krieger@nps.gov>, davidj12657@verizon.net, JOHN MARSLAND <canoeman60@yahoo.com>, "Klyberg, Kevin C" <Kevin_Klyberg@nps.gov>, kevin_rice@nps.gov, "Mendik, Kevin R" <kevin_mendik@nps.gov>, "Hay, Duncan E" <Duncan_Hay@nps.gov>, Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>, Curtis McLellan <curtis@nehydropower.com>
Bcc: Christopher DOvidio <chris@dovidiolaw.com>, Carol Wasserman <carol@nehydropower.com>

Good morning, Eric. On July 21st, NEHC received the following email from you:

After gleaning what I could following our site visit to the Ashton Dam and Blackstone Canal in June, consulting with our partner organizations and staff, and reviewing the National Register of Historic Places listings of Blackstone River State Park structures and Ashton Village and Dam, I have come to the conclusion that New England Hydropower Company's as-of-now still informal proposal to lay an underground conduit along the Blackstone Canal tow path from the Ashton Dam south would cause significant damage to the historic structure and archeological fabric of the Blackstone Canal in Blackstone River State Park. In so doing, it would greatly diminish the historic integrity of the Blackstone Canal, a Fundamental Resource of Blackstone River Valley National Historical Park.

As a result, I write to inform you that I cannot support your company's proposal, nor can I in good conscience approve of any construction project involving conduit buried along the canal tow path under the terms of the preservation and conservation easement the National Park Service holds on the portion of Blackstone River State Park under discussion.

While we are disappointed, we nonetheless will continue to collaborate with the NPS to configure the Project such that all relevant NPS performance standards are met. We had proposed undergrounding in an effort to comply with NPS Reference Manual 53B - Rights of Way (June 2021) which provides that all new utility lines in parks will be placed in an underground conduit. As NPS has seen fit to deny consideration of the proposed underground conduit prior to receiving a ROW permit application from NEHC, we will develop an alternative plan for your consideration.

NEHC had determined that the undergrounding, in addition to complying with Reference Manual 53B, would also meet the necessary performance standards set forth in 54 USC Section 100902(b):

- There is legal authority for the proposed request: See 54 U.S.C. Section 100902
- The proposal is consistent for the purposes for which the park was established: The Proposed Project facilitates restoration of historic generation as described in the Congressional Designation for the Historic Corridor and for education

- The requested location is not in a proposed or designated wilderness area: It is not
- There is a practicable alternative: There is no practicable alternative for interconnection that does not include a portion of the NPS jurisdictional area
- The request would not result in unacceptable impacts to park resources or values that cannot be mitigated: No unacceptable or unmitigable impacts

Notwithstanding, NEHC is developing another alternative for NPS consideration. The alternative will be submitted in the form of a right-of-way permit application and response to the NPS Study Request, so as to create an administrative record of collaboration with the NPS.

We look forward to continuing to work cooperatively to advance the Project, the only new development of renewable hydropower currently proposed for Rhode Island. This Project, once constructed and in operation, will serve the public interest and the policies of the State of Rhode Island in a significant and positive way.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

NEHC New England Hydropower Company, LLC

8 April 2021

Anthony Dean Stanton, Chief Sachem
Via email: adstanton@nitribe.org
Narragansett Indian Tribe
PO Box 268
Charlestown RI 02813

John Brown, THPO
Via Email: tashtesook@aol.com
Narragansett Indian Tribe
PO Box 463
Charlestown, RI 02813

Dear Mr. Stanton and Mr. Brown:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric Project (the Project) to be located on the Blackstone River at Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests any information you are willing to share about resources of Tribal interest that may be affected by the Project, and to determine whether or not the Narragansett Tribe desires to participate in the licensing effort with the Federal Energy Regulatory Commission (FERC), the federal regulating agency for the Project.

The previous design of the proposed Ashton Dam Hydroelectric Project included the dredging of a filled former power canal to install three Archimedes Screw Turbines at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland.

The current design is for the installation of four StreamDiver unregulated, Kaplan-style turbines that will be located in the River. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. This will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

The StreamDiver turbine is a small, low impact hydropower turbine which operates in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water. Downstream fish passage will include exclusionary trash racks, specific flow amounts to keep fish moving, and notches designed into the Project to allow fish to pass downstream, over the turbines. In consultation with the Rhode Island Department of Environmental Management (RIDEM), upstream fish passage will also be designed, but not constructed as part of the Project, until certain fish population criteria are met. Eel passage will be designed and constructed as part of the Project.

Figures are attached to show the project location, as well as several computer-created drawings to give a basic idea of the completed construction.

Please contact the undersigned if you have any comments, would like to visit the Project Site, and/or if you have an interest in participating in the licensing of this small-scale hydropower project. We would

also appreciate knowing if you do not wish to participate in the licensing. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you for your time.

Ms. Glendon Barnes
Sr. Environmental Regulatory Affairs Specialist
New England Hydropower Company, LLC

glendon@nehydropower.com

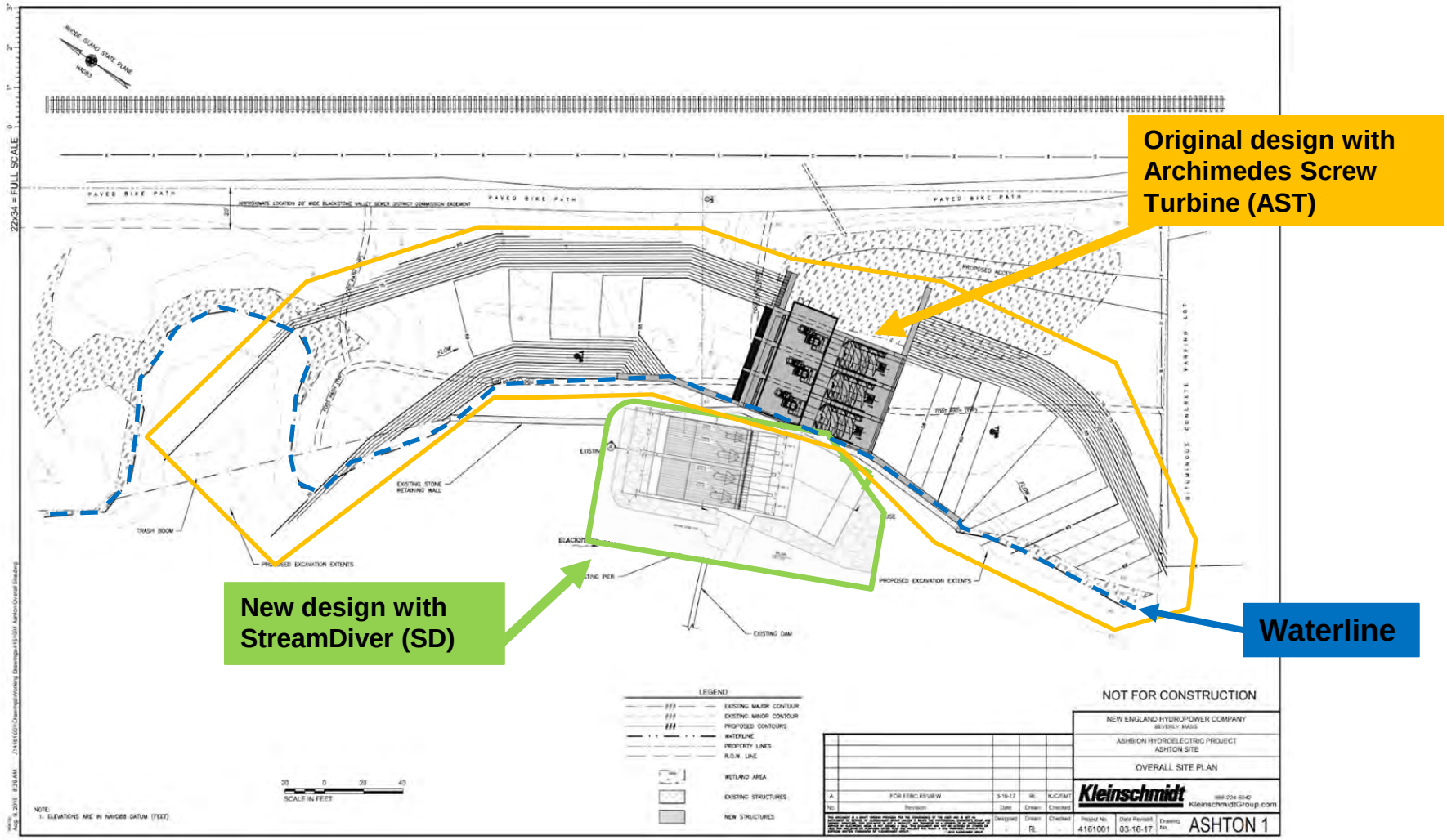
Attachments: figures

Ashton Dam, Cumberland, RI
FERC No.P-14634

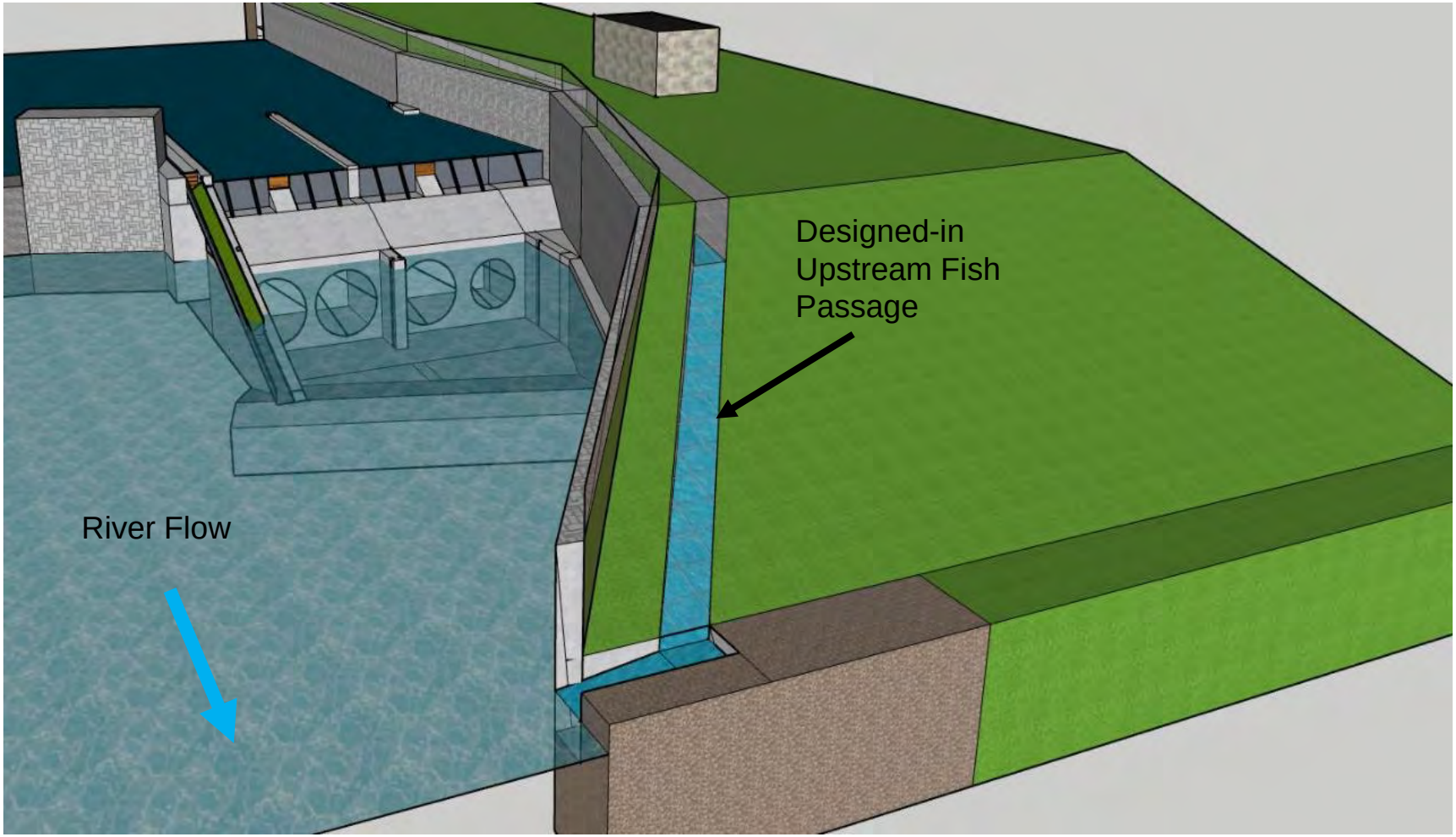
Project installation location

Ashton Dam, Cumberland, RI
FERC No.P-14634

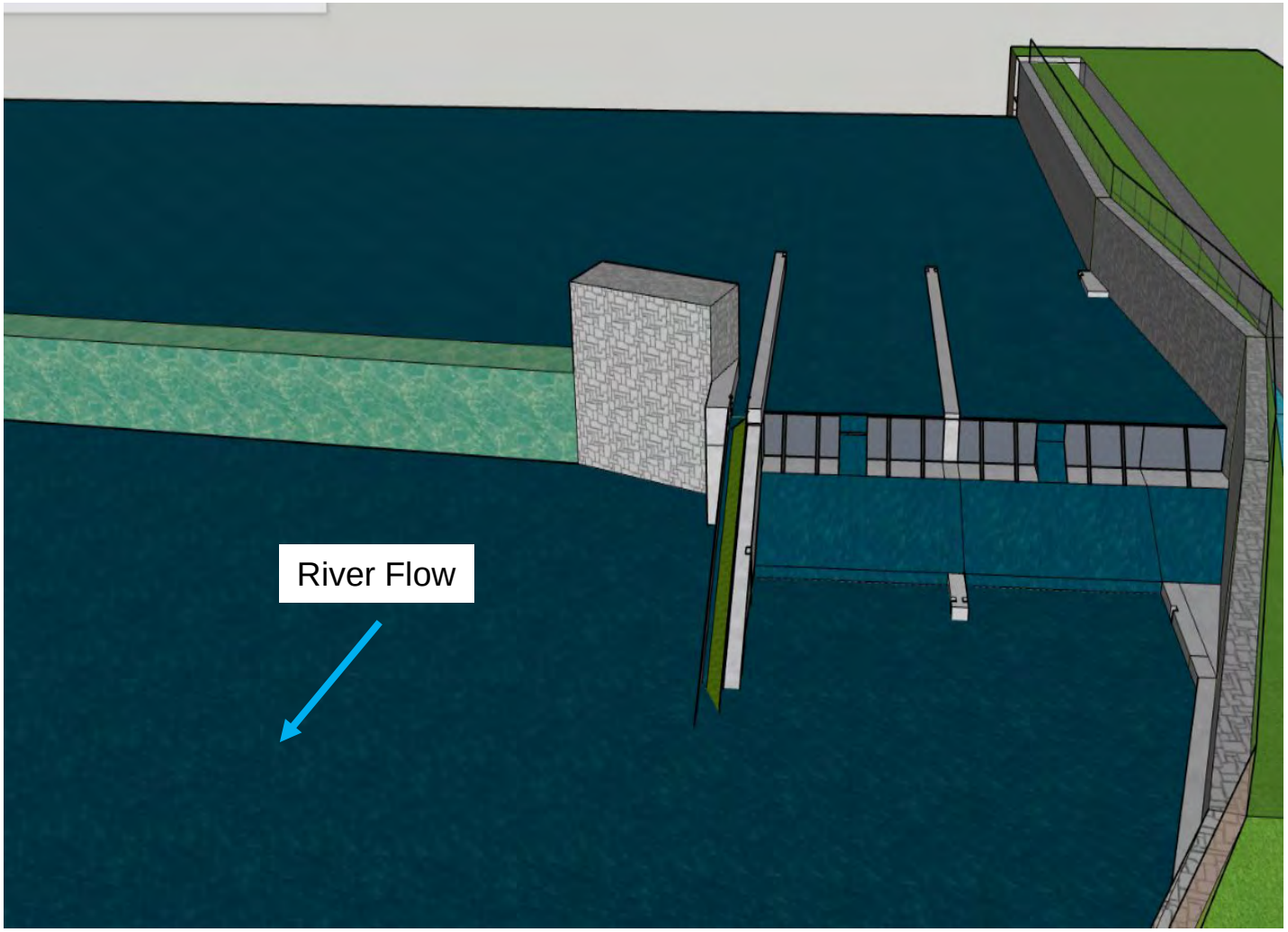
AST/SD Project Footprint Comparison



Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project (for illustrative purposes only- not to scale)



NEHC New England Hydropower Company, LLC

8 April 2021

Via email: JohnPaul.Loether@preservation.ri.gov

J. Paul Loether
Executive Director
State of Rhode Island Historical Preservation and Heritage Commission
Old State House
150 Benefit St.
Providence, RI 02903

Via email: Jeffrey.Emidy@preservation.ri.gov

Jeffrey Emidy
Deputy State Historic Preservation Officer
State of Rhode Island Historical Preservation and Heritage Commission
Old State House
150 Benefit St.
Providence, RI 02903

Dear Mr. Loether and Mr. Emidy:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric Project (the Project) to be located on the Blackstone River at Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests your input on the Project as redesigned, with regards to Historic Properties.

Due to concerns over flood impacts, as well as access and construction space constraints, the Project has been redesigned and is in the process of filing for a FERC license. The previous design of the proposed Ashton Dam Hydroelectric Project included the dredging of a filled, former, power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

The current design is for the installation of four StreamDiver unregulated, fully submerged Kaplan-style turbines that will be located in the River. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. A drop gate to replace the gating structure washed out in the 2010 flood will be reconstructed along the lower-level spillway's crest to allow for the appropriate flow through the submerged turbines and return a veil flow of water to the main dam crest. This new design will have a direct effect on the Ashton Dam's lower-level spillway, but very little effect on the upland and riverbank near the Dam.

Table 1: Comparison of Previous and Currently Proposed Design Details

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Steel Archimedes Screw Turbine (3)	Length: 20.4 ft Diameter: 13.5 ft	StreamDiver submerged Kaplan turbines (4)	Length: 13.39 ft (3 large units) 10.61 ft (1 small unit) Diameter: 7.73 ft (3 large units) 5.98 ft (1 small unit)
Concrete Penstock	Number: 3 Length: 30 ft Width: 15 ft Depth: 12 ft	Concrete Penstock	Number: 2 Length: 43.85 ft Width: 22.15 ft Depth: 19.2 ft
Concrete Tailrace	Number: 3 Length: 120 ft Width: 42 ft	Concrete Tailrace	Number: 1 Length: 11.5 ft Width: 44.3 ft
Steel Trash Rack	Number: 3 Height: 12 ft Width: 15 ft Spacing: 9 in	Steel Trash Rack	Number: 2 Length: Approx. 41ft Width: Approx. 19.8 ft Spacing: 12-14mm
Steel Sluice Gate at Penstock Intake	Number: 3 Area (each): 120 sq ft Height: 8 ft Width: 15 ft	No Steel Sluice Gate at Penstock Intake	N/A
One-story Powerhouse	Height: 18 ft Length: 53 ft Width: 24 ft	One-story Powerhouse	Height: 8 ft Length: 20 ft Width: 8 ft
Safety Fencing around Above-ground Structures	TBD	Safety Fencing around Above-ground Structures	TBD
Single Overhead Transmission Line	800 feet	Single Underground Transmission Line	Approx. 1370 ft to existing transformer
Pad-mounted Transformer	1	Pad-mounted Transformer	1

The StreamDiver turbine is a small, low impact hydropower turbine which operates in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport.

Visually, very little will be seen above the surface of the water. The sidewalls of the concrete bays channeling flow to the turbines will be visible, but the design plans call for these sidewalls to be only a few inches above the normal water surface. In addition, the powerhouse will be considerably smaller and set back on the upland, rather than atop the turbines. Finally, the electrical interconnection lines will be located below ground to an existing transformer at the Ashton Lofts parking lot. This will

eliminate the need for power poles along the bike path. In all, the project is more in scale with the surroundings and should have a smaller construction and visual footprint.

Downstream fish passage including exclusionary trash racks, specific flow amounts to keep fish moving, and notches, will be designed into the Project to allow fish to pass over the turbines. In consultation with the Rhode Island Department of Environmental Management (RIDEM), upstream fish passage will also be designed, but not constructed as part of the Project, until certain fish population criteria are met. Eel passage will be designed and constructed as part of the Project.

Figures are attached to show the project location and approximate size compared to the previous design containing the AST. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact me if you have any questions or comments. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you.

Ms. Glendon Barnes

Sr. Environmental and Regulatory Affairs Specialist
New England Hydropower Company, LLC

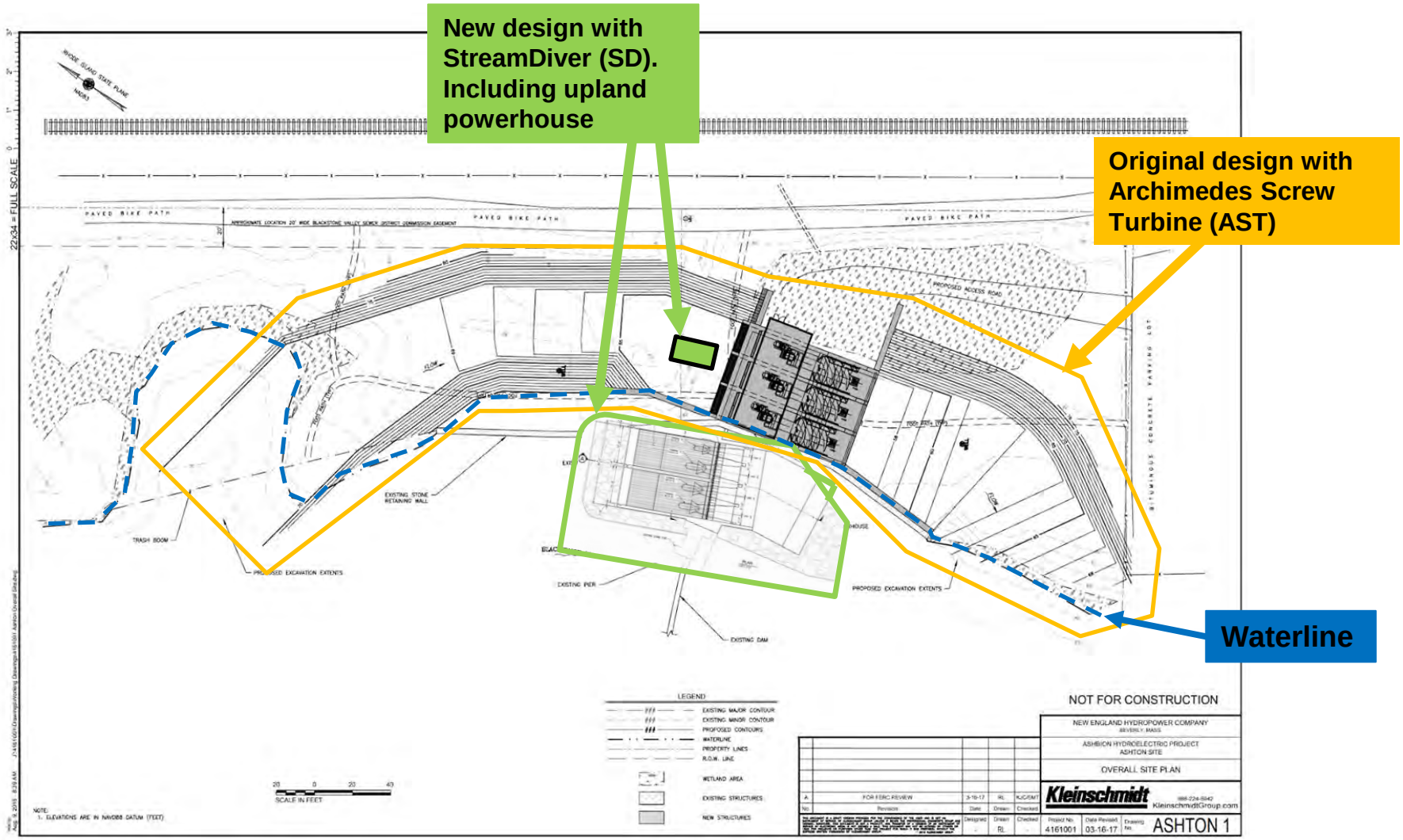
glendon@nehydropoewer.com

Ashton Dam, Cumberland, RI
FERC No.P-14634

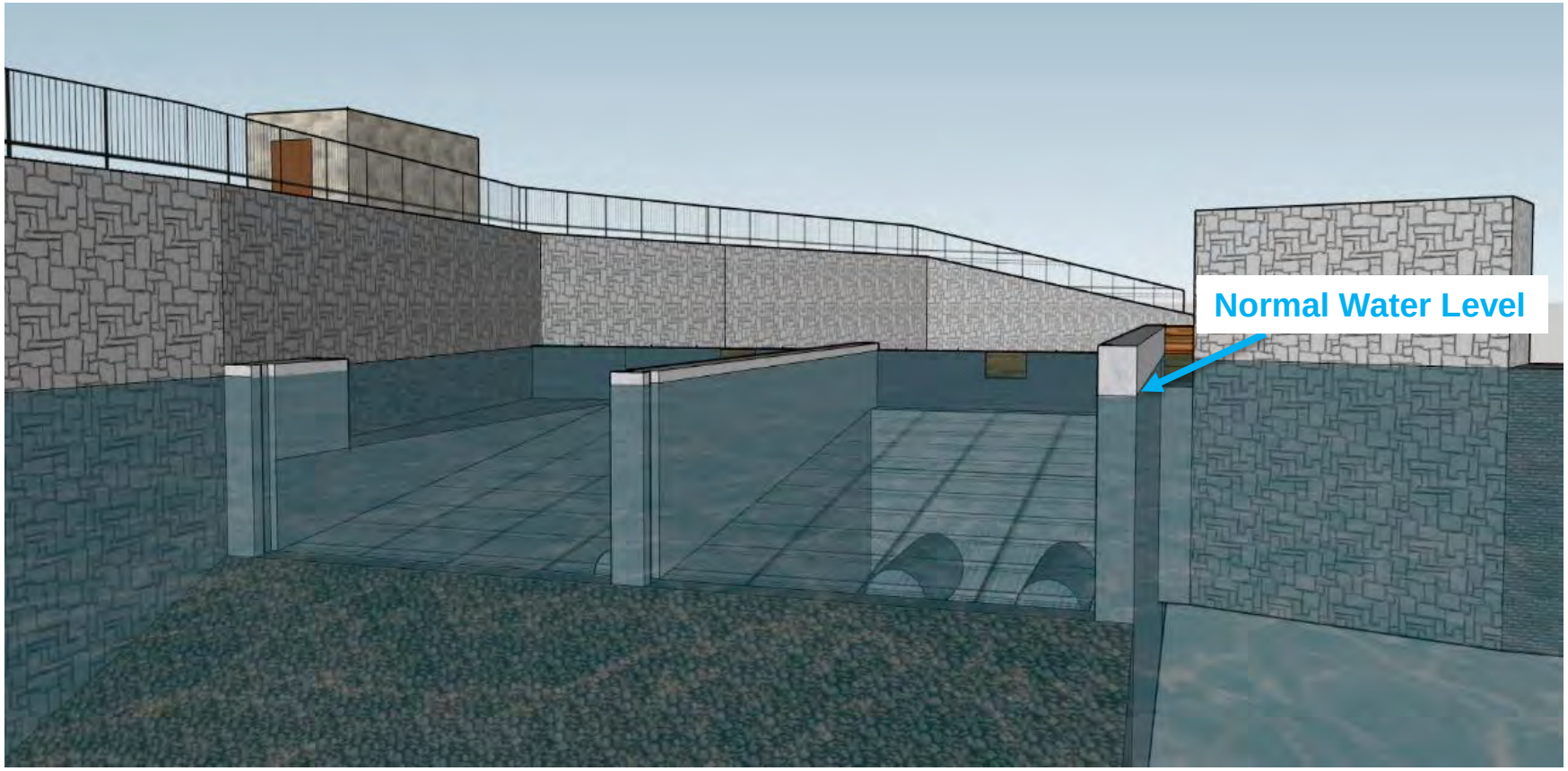
Ashton Dam, Cumberland, RI
FERC No.P-14634

Project installation location

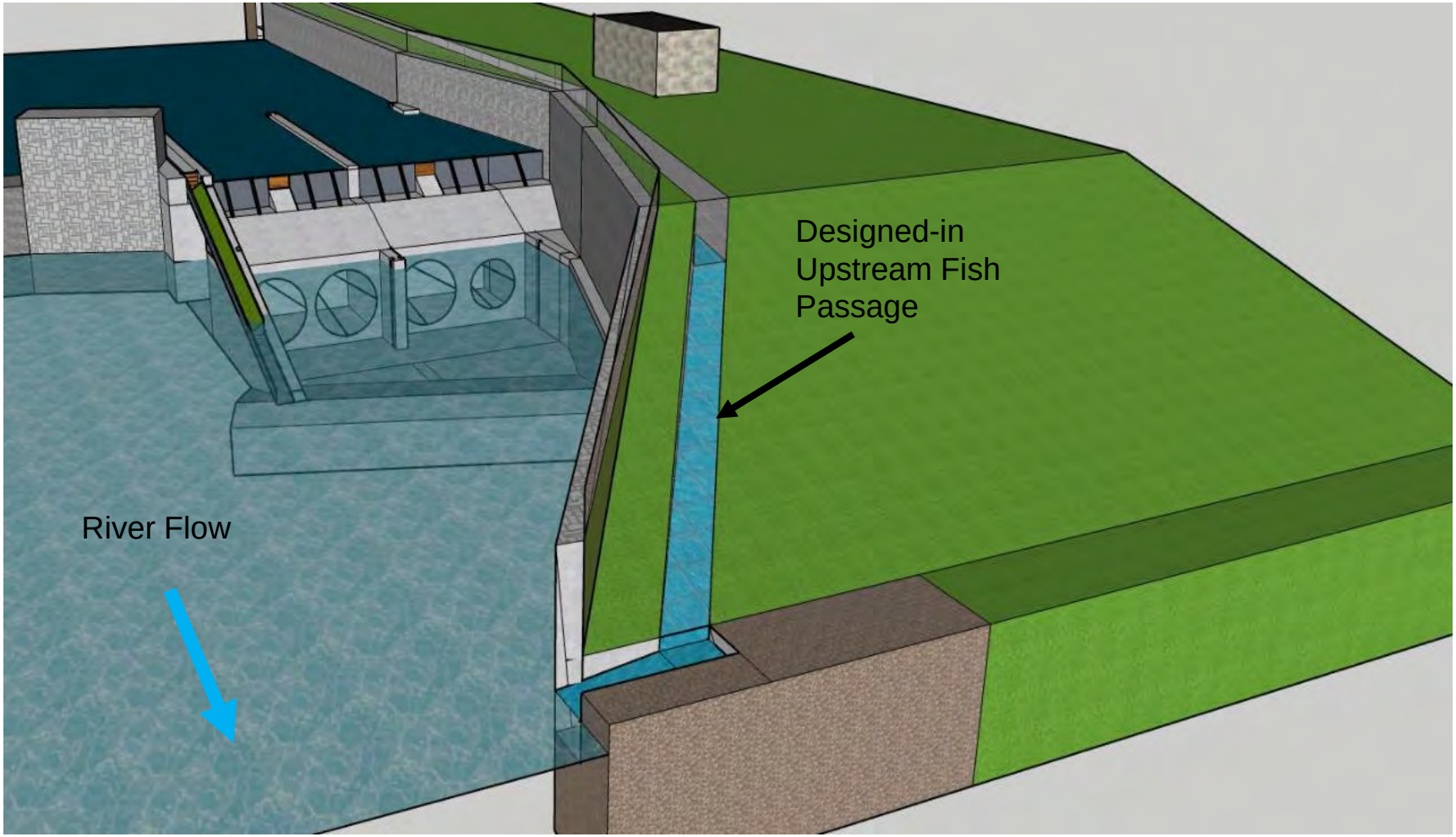
AST/SD Project Footprint Comparison



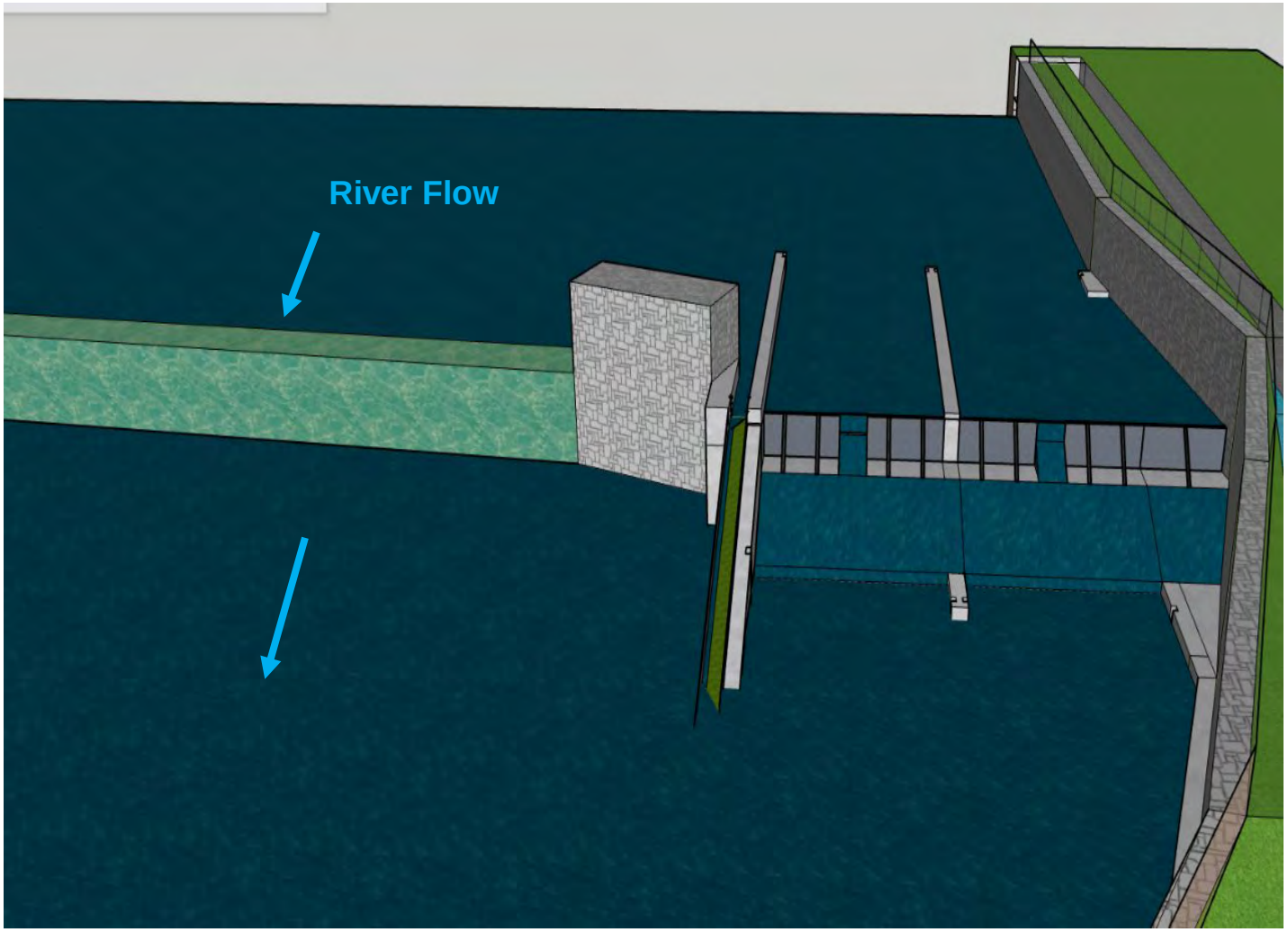
Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



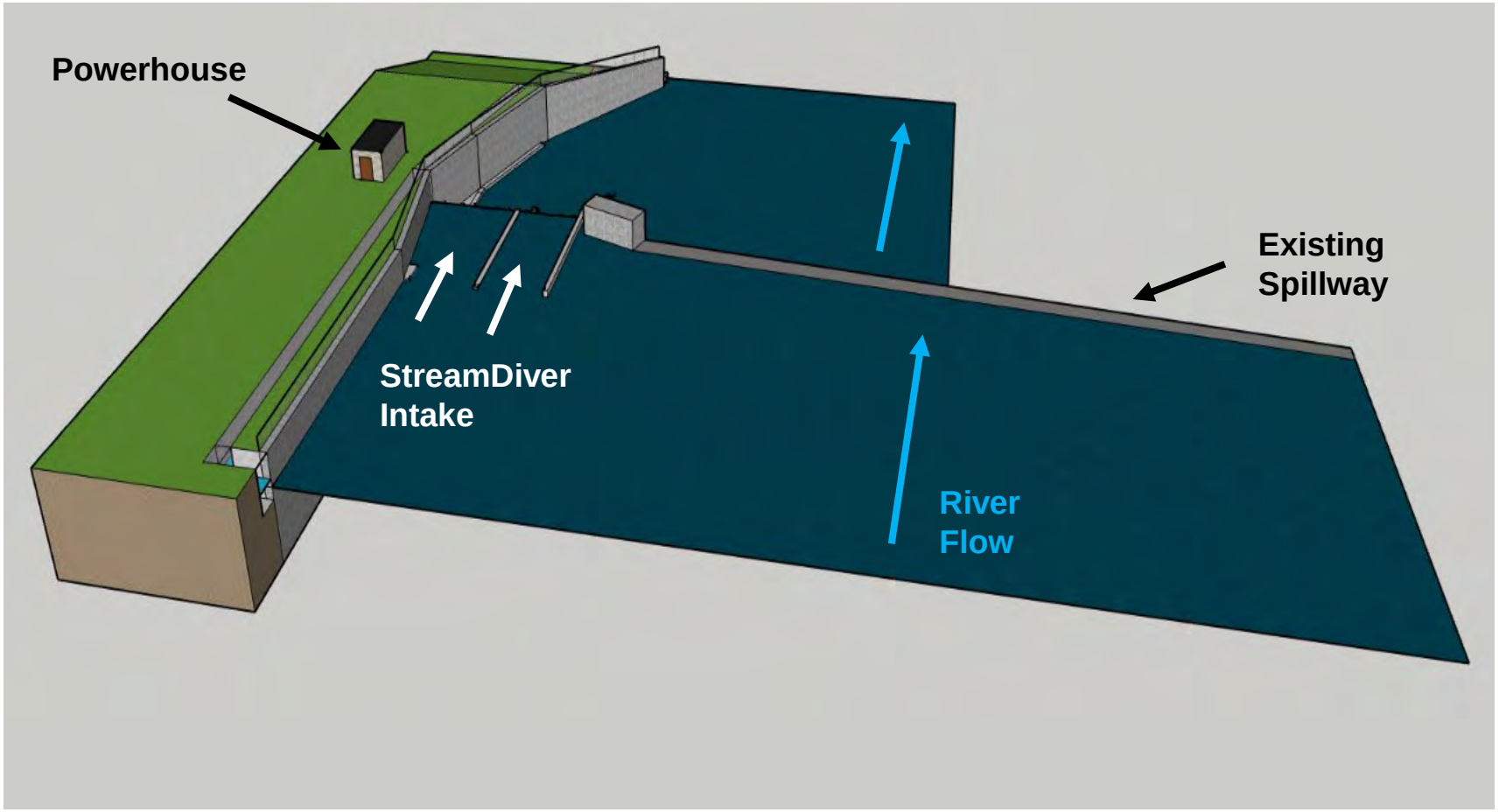
Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Upstream (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



STATE OF RHODE ISLAND

HISTORICAL PRESERVATION & HERITAGE COMMISSION

Old State House 150 Benefit Street Providence, RI 02903

Telephone 401-222-2678 Fax 401-222-2968
TTY 401-222-3700 www.preservation.ri.gov

11 May 2021

Via email: glendon@nehydropower.com

Glendon Barnes
Sr. Environmental and Regulatory Affairs Specialist
New England Hydropower Company, LLC
100 Cummings Center, Suite 451C
Beverly, Massachusetts 01915

Re: RIHPHC Project No. 12095
Ashton Dam Hydroelectric Project
Blackstone River north of George Washington Highway
Cumberland and Lincoln, Rhode Island

Dear Ms. Barnes:

Thank you for the information that you recently sent regarding the redesign of the Ashton Dam Hydroelectric project. We understand that, due to concerns not related to historic preservation, the type of turbines proposed to be used, and thus the project as a whole, has been redesigned.

Through consultation that began in 2017, New England Hydropower Company and the Rhode Island Historical Preservation and Heritage Commission (RIHPHC) reached an agreement that the previously proposed design would have an adverse effect on historic resources. That design proposed excavating a previously-filled power canal on the east (Cumberland) end of the Ashton Dam, installing three Archimedes Screw turbines, constructing a powerhouse above the turbines, and other elements. The new design calls for the installation of four, fully-submerged, StreamDiver turbines in the river at the location of the lower-level spillway of the Dam, a powerhouse built atop the filled power canal, and an eel passage. All of these elements will be at the east end of the dam.

While the new design will have a smaller visual impact in the district than the previous design, the physical impacts to the historic dam at the spillway and the construction of a new powerhouse where there historically was not one will have an adverse effect on the National Register of Historic Places-listed Ashton Historic District. As the previous design also resulted in an adverse effect and mitigation was agreed to for that design, we propose the same mitigation for the StreamDiver turbine design.

These comments are provided in accordance with Section 106 of the National Historic Preservation Act. If you have any questions, please contact RIHPHC Deputy Director Jeffrey Emidy at 401-222-4134 or jeffrey.emidy@preservation.ri.gov.

Sincerely,

FOR

J. Paul Loether
Executive Director and State Historic Preservation Officer

210511.03jde

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street
Providence, Rhode Island 02908-5767

February 25, 2021

Via E-Filing

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

RE: Ashton Dam Hydroelectric Project
New England Hydropower Company, LLC
Amended Hydroelectric Application, Docket No: 14634-002

Dear Ms. Bose:

The Rhode Island Department of Environmental Management's (RI DEM) Water Quality Certification Program (WQC Program) was electronically notified by FERC of the Amendment to the Application of New England Hydropower Company (NEHC) for the Ashton Dam Hydroelectric project as referenced above for FERC Docket No. 14634-002. As proposed, the Amended Application describes a project significantly different in scope and anticipated impacts as compared to the previously proposed use of Archimedes Screw Turbines (AST) with new head race and tail race. The revised proposal envisions a new powerhouse located within the extent of the river and the dam itself, with four proposed "StreamDiver" submersible Kaplan turbines.

The WQC Program has reviewed the Amended Application and would like to offer the following comments on that amended document:

Comments on Amended Application for Ashton Dam Hydropower

1. Within the "Initial Statement in Accordance with 18 C.F. R. §4.61(b)", on Page I-2 of the Amended Application, at Item #6(ii)describing the steps the applicant "...has taken or plans to take to comply with each of the laws cited above [in item 6(i)]", the applicant makes the following claims:

   - "The Applicant has in place construction and operation plans to comply with all water pollution, stormwater and water quality regulations including receipt of a Water Quality Certification through Rhode Island Department of Environmental Management (RIDEM).", and;
   - "The Applicant commissioned a wetland delineation and a wetland function and value analysis, and submitted the subsequent report to RIDEM for approval. With protections in place to protect wetlands at the Project Site, RIDEM issued the Applicant a permit to Alter Freshwater Wetlands."

Neither of those statements is true. To date, RI DEM has not received any request for a Water Quality Certification and has also not issued any Water Quality Certification for this project. Additionally, RI DEM has received no report on the wetland delineation or any function and value analysis from the Applicant. The applicant not submitted any application for, nor has RI DEM issued, a Permit to Alter Freshwater Wetlands. The project as proposed will require both an Application to Alter Freshwater Wetlands and a Water Quality Certification request to RI DEM.

2. Later, on Pg. E-2, there is mention of construction of upstream eel passage, but nothing of the need to accommodate downstream eel passage. This seems to be acknowledged in the chart, at the bottom of pg. E-3 for "Fish, Aquatic Resources" where "No Improvement to existing downstream passage" is listed as a negative of the proposed design. RI DEM believes that the design will need to accommodate safe and effective downstream passage for at least American eel and, when upstream passage is put in place for other dams downstream, for Anadromous fish species.

3. **Section 2.4, Pg. E-10:** All terms and conditions negotiated with RIDEM and the USFWS were in regards to the originally proposed AST technology and diversion channel. These suggested terms and conditions will all be reconsidered and may need to be modified or supplemented by the agencies as we review the new design.

4. **Section 3.1 Existing Conditions:** This section includes outdated information. There are two projects on the Blackstone River that have recently proceeded though license renewals, and one project that received a new license, through FERC. All three of these projects include minimum conservation flows in bypass reaches.

5. **Section 3, General Comment:** A critical requirement for this project will be that pre-existing hydrologic conditions, particularly with respect to surface water elevations, remain unchanged by the proposed project. Careful design of the powerhouse to maintain these conditions, and to act as the primary spillway for low flow conditions, will be needed. It is likely that this will require consideration for use of the powerhouse structure for downstream fish and eel passage, as well as potential reconsideration of intake screening to be oriented in a horizontal rather than vertical orientation.

6. **Section 4.2: Visual Impacts (top of pg. E-22)** It is stated here that "...the Project will be constructed on State-owned property not currently hosting portage for paddle craft on the eastern side of the River." There is, in fact, a traditional portage trail on the eastern side of the river and is frequently used as the most direct portage route for boaters who intend to continue down the main-branch Blackstone River instead of the Blackstone Canal route on the western side of the river. This path may be potentially obstructed by the proposed project. This impact should be addressed.

7. **Section 6.1.2: Sediment Quality:** This section identifies several contaminants of concern based on the applicant's sediment sampling. Specifically, it is stated, "According to the testing results of samples obtained at the Site, antimony, arsenic, lead, TPH, and some SVOCs exceeded RIDEM, RES, and DEC sediment screening criteria." However, it is not made at all clear in Section 6.2 (Potential Impacts and Control Measures) what measures will be in place to ensure suspended contaminants are not discharged downstream, nor how any excavated contaminated sediments will be disposed. These details will be needed.

8. **General Comment:** It would be useful to have a chart comparing flow levels at varying river flows for both existing and proposed conditions. The existing chart would include flows expected over the lower spillway, through the existing gatehouse between the lower and main spillways, and over the main spillway. The proposed chart would include flow levels over the lower spillway, through the existing gatehouse, over the main spillway, and through the turbines at different operational conditions (no flow through turbines; and flow through one, two, three or all four turbines). Such information will

be critical to understanding impacts to river flows, flood storage above the dam, and changes in flows downstream from the dam as a result of the proposed configuration.

9. **Section 9.2 Potential Impacts and Proposed Measures (rare, threatened and endangered species):** It is stated in this section that "The StreamDivers will not impact downstream passage for aquatic species of concern." However, it is not made clear anywhere in the Amended FLA how this impact will be avoided, other than through the use of appropriately sized trash racks to minimize entrainment. Trash racks alone are not considered adequate measures to ensure safe and effective downstream passage of American eels or other species of concern. The failure of the Amended Application to address downstream fish passage is a significant shortcoming of the application. The WQC Program will require this issue to be addressed for any future applications.

10. **Section 10, and 10.2, Recreation and Aesthetics:** The project is proposed on the eastern side of the river, where an existing portage path is used by canoeists and kayakers paddling along the Blackstone River. The access path from the Bike Path east of the site here is also used by recreational fisherman for access to prime fishing opportunities below the dam from the eastern bank. Impacts to these recreational resources are not addressed in the Amended FLA.

RIDEM looks forward to working with the Applicant and FERC going forward through the licensing process to ensure that the proposed project can meet all RI DEM requirements and standards. If you have any questions, please contact me by email at chuck.horbert@dem.ri.gov or at (401) 222-6820, extension 77402.

Sincerely,

Charles A. Horbert

Charles A. Horbert, Deputy Administrator
Groundwater and Wetlands Protection
Rhode Island Department of Environmental Management
Office of Water Resources, Water Quality Certification Program
235 Promenade Street, Providence, RI 02908-5767

ec: Eric Beck, Administrator for Groundwater & Freshwater Wetlands Protection, RIDEM
Phillip Edwards, RIDEM Division of Fish & Wildlife
Patrick McGee, RIDEM Division of Fish & Wildlife
Mary Kay, Executive Counsel, RIDEM Office of Legal Services
Melissa Grader, U.S. Fish and Wildlife Service
Carol Wasserman, New England Hydropower Company, LLC

Document Content(s)

13 April 2021

Via email: chuck.horbert@dem.ri.gov
Charles Horbert
Wetlands Supervisor
RI DEM
235 Promenade Street
Providence, RI 02908

Via email: terry.gray@dem.ri.gov
Terrence Gray
Deputy Director for Environmental Protection
RI DEM
235 Promenade Street
Providence, RI 02908

Dear Mr. Horbert and Mr. Gray:

New England Hydropower Company, LLC (NEHC) appreciates the comments submitted on the License Application for the Ashton Dam Hydroelectric Project. The responses to the comments are being included in the next submission to the Federal Energy Regulatory Commission.

In the meantime, this document has been drafted to provide your office with additional information on the current plan, as well as to solicit any additional comments we might discuss in a pre-application technical meeting we hope to set up shortly.

Due to concerns expressed earlier by your office regarding flood impacts, as well as access and construction space constraints, the Project has been redesigned. The previous design of the proposed Ashton Dam Hydroelectric Project included the dredging of a filled, former power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

The current design is for the installation of four StreamDiver unregulated, fully submersible Kaplan-style turbines that will be located in the River beneath the surface of the water. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. A drop gate to replace the gating structure washed out in the 2010 flood will be reconstructed along the lower-level spillway's crest to allow for the appropriate flow through the submerged turbines and return a veil flow of water to the main dam crest. This new design will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

Table 1 below compares some key dimensions and design details of the two technologies.

Table 1: Comparison of Previous and Currently Proposed Design Details

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Steel Archimedes Screw Turbine (3)	Length: 20.4 ft Diameter: 13.5 ft	StreamDiver submerged Kaplan turbines (4)	Length: 13.39 ft (3 large units) 10.61 ft (1 small unit) Diameter: 7.73 ft (3 large units) 5.98 ft (1 small unit)
Concrete Penstock	Number: 3 Length: 30 ft Width: 15 ft Depth: 12 ft	Concrete Penstock	Number: 2 Length: 43.85 ft Width: 22.15 ft Depth: 19.2 ft
Concrete Tailrace	Number: 3 Length: 120 ft Width: 42 ft	Concrete Tailrace	Number: 1 Length: 11.5 ft Width: 44.3 ft
Steel Trash Rack	Number: 3 Height: 12 ft Width: 15 ft Spacing: 9 in	Steel Trash Rack	Number: 2 Length: Approx. 41ft Width: Approx. 19.8 ft Spacing: 12-14mm
Steel Sluice Gate at Penstock Intake	Number: 3 Area (each): 120 sq ft Height: 8 ft Width: 15 ft	No Steel Sluice Gate at Penstock Intake	N/A
One-story Powerhouse	Height: 18 ft Length: 53 ft Width: 24 ft	One-story Powerhouse	Height: 8 ft Length: 20 ft Width: 8 ft
Safety Fencing around Above-ground Structures	TBD	Safety Fencing around Above-ground Structures	TBD
Single Overhead Transmission Line	800 feet	Single Underground Transmission Line	Approx. 950 ft
Pad-mounted Transformer	1	Pad-mounted Transformer	1

The StreamDiver turbine is a small, low impact hydropower turbine which operates in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water.

Downstream fish passage protection measures will include exclusionary trash racks with bar spacing at approximately 12-14mm. Recognizing narrow bar spacing is not a sufficient protection measure, the main focus of excluding fish will be designing the angle of the trash rack to allow a specific flow ratio to keep fish moving over the turbines. The precise flow amount and design of the trash racks is still being determined but will allow for a through velocity of approximately 0.5m/s to keep fish moving. In addition, two notches (approximately 2-3 feet wide and 1.5-2 feet deep) will be designed into the drop gate to allow fish to pass over the turbines. Flow

through the notches should be around 40cfs but could be increased slightly if this proves to be insufficient[1]. Either of the notches can be closed off if there is low river flow, but one of the notches will always be left open, for downstream passage. Below the notches, the concrete structure will be sloped and will remain wetted to allow fish a gentle and safe return to the river. Upstream fish passage will also be designed, but not constructed, as part of the Project. Eel passage will be designed and constructed as part of the Project.

As the Project is being designed to pass River flows in a run-of-river manner, backflooding should not be an issue. The drop gate to be constructed atop the lower-level spillway will be adjustable and will lay flat to pass flood flows, effectively replicating the conditions that currently exist. With the drop gate in a raised position, a small veil flow of 100cfs is planned to pass over the main spillway, which is no different than conditions would be in moderate flows. Recent inundation mapping by the engineers at Kleinschmidt Associates raised no concerns about the construction of the Project, as designed, altering the existing potential for flooding at the Project site, stating the Inflow Design Flood (IDF) is recommended to be the 100-year flow. And the spillway has the capacity to pass the IDF without overtopping any of the abutment structures.

Further discussion of this topic and how the Applicant is addressing it can be held during a technical meeting.

Figures are attached to show the project location and approximate size compared to the previous design containing the AST. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact the undersigned if you have any questions. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you.

Carol Wasserman

Carol Wasserman
Principal – Regulatory and Environmental Affairs
New England Hydropower Company, LLC
carol@nehydropower.com

encl.: figures

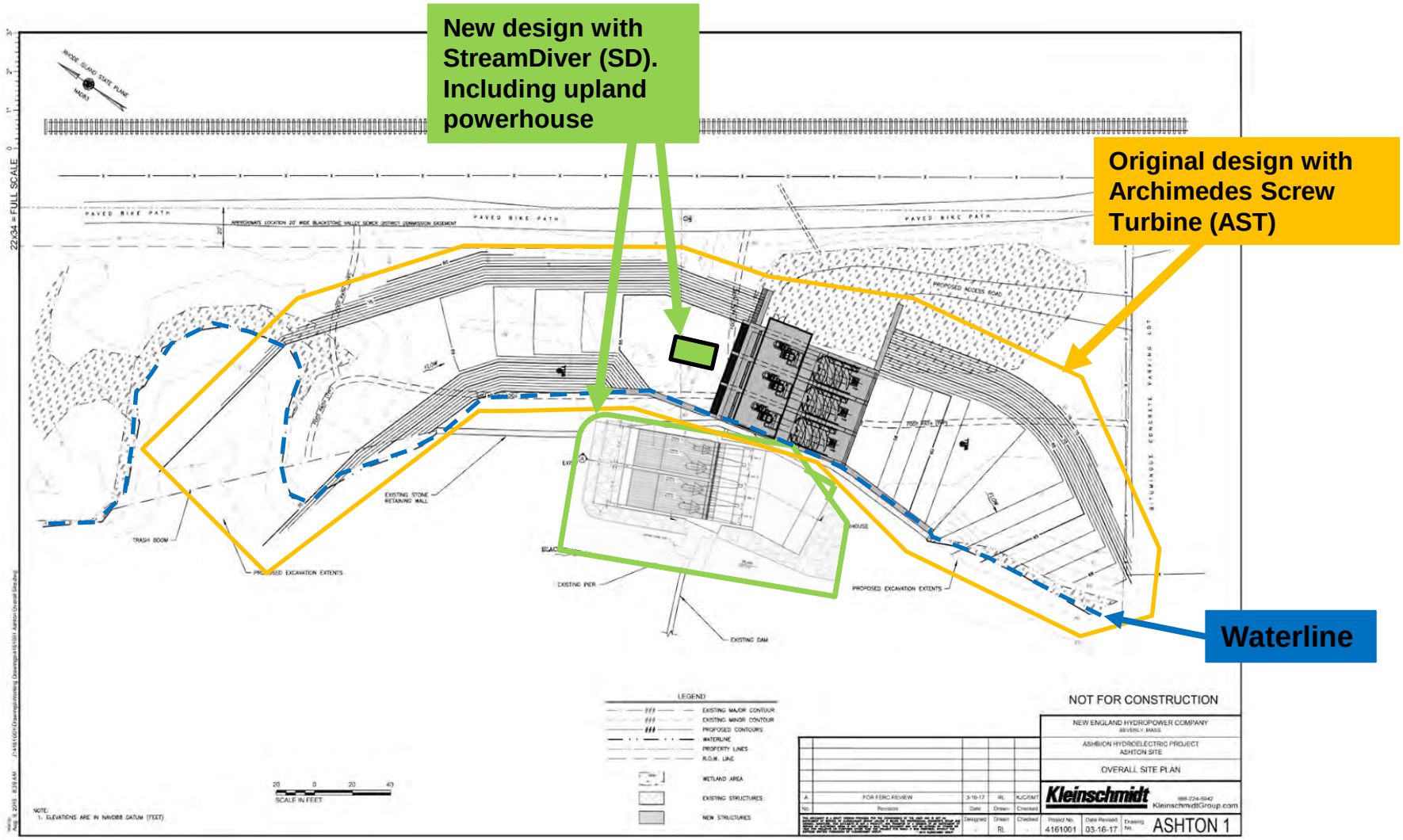
[1] There currently is no flow control at the Ashton dam, the sluice gates having been destroyed in the March 2010 storm. NEHC intends to perform a flow study to confirm appropriate flow levels following construction of new flow controls.

Ashton Dam, Cumberland, RI
FERC No.P-14634

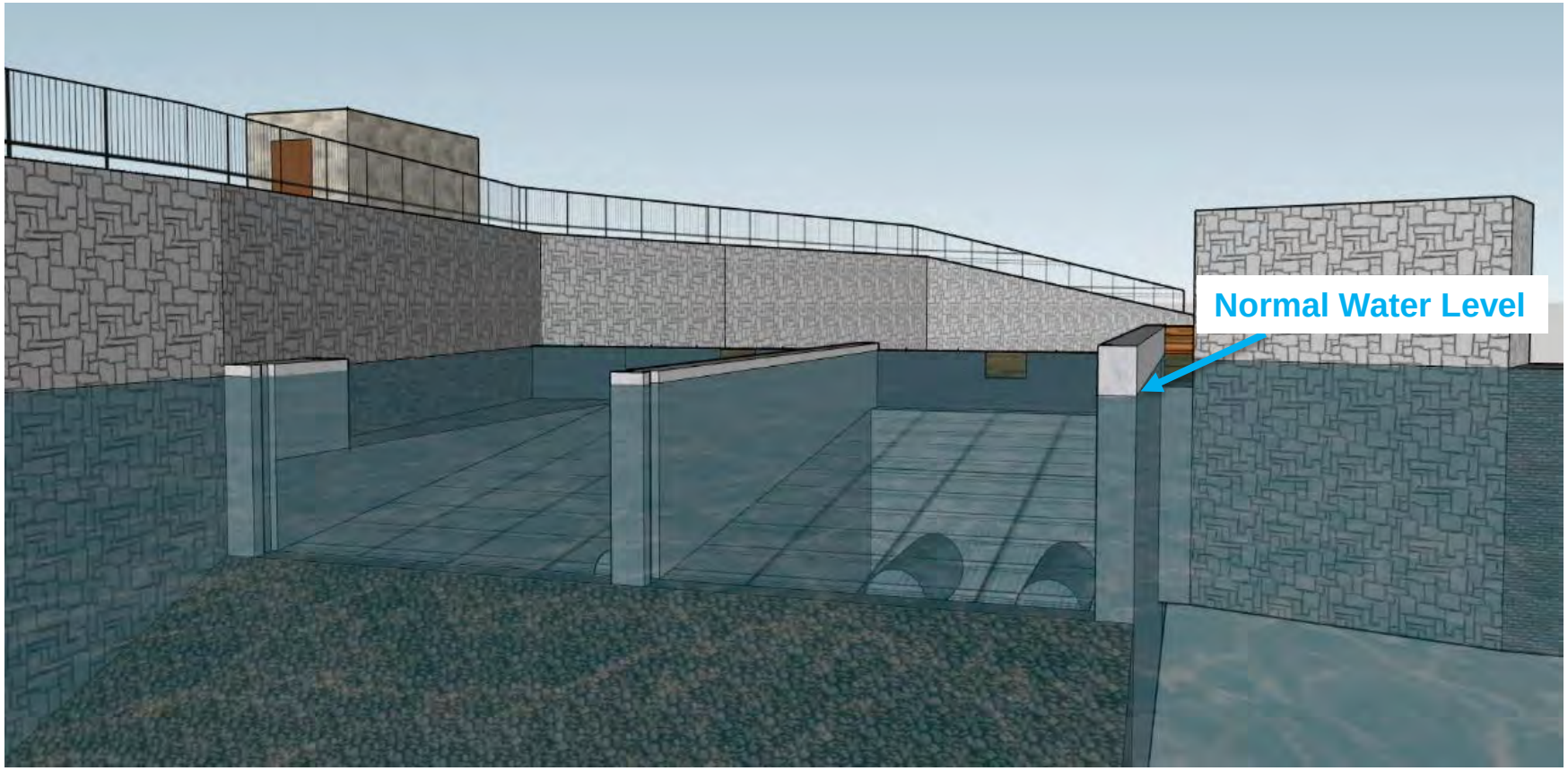
Ashton Dam, Cumberland, RI
FERC No.P-14634

Project installation location

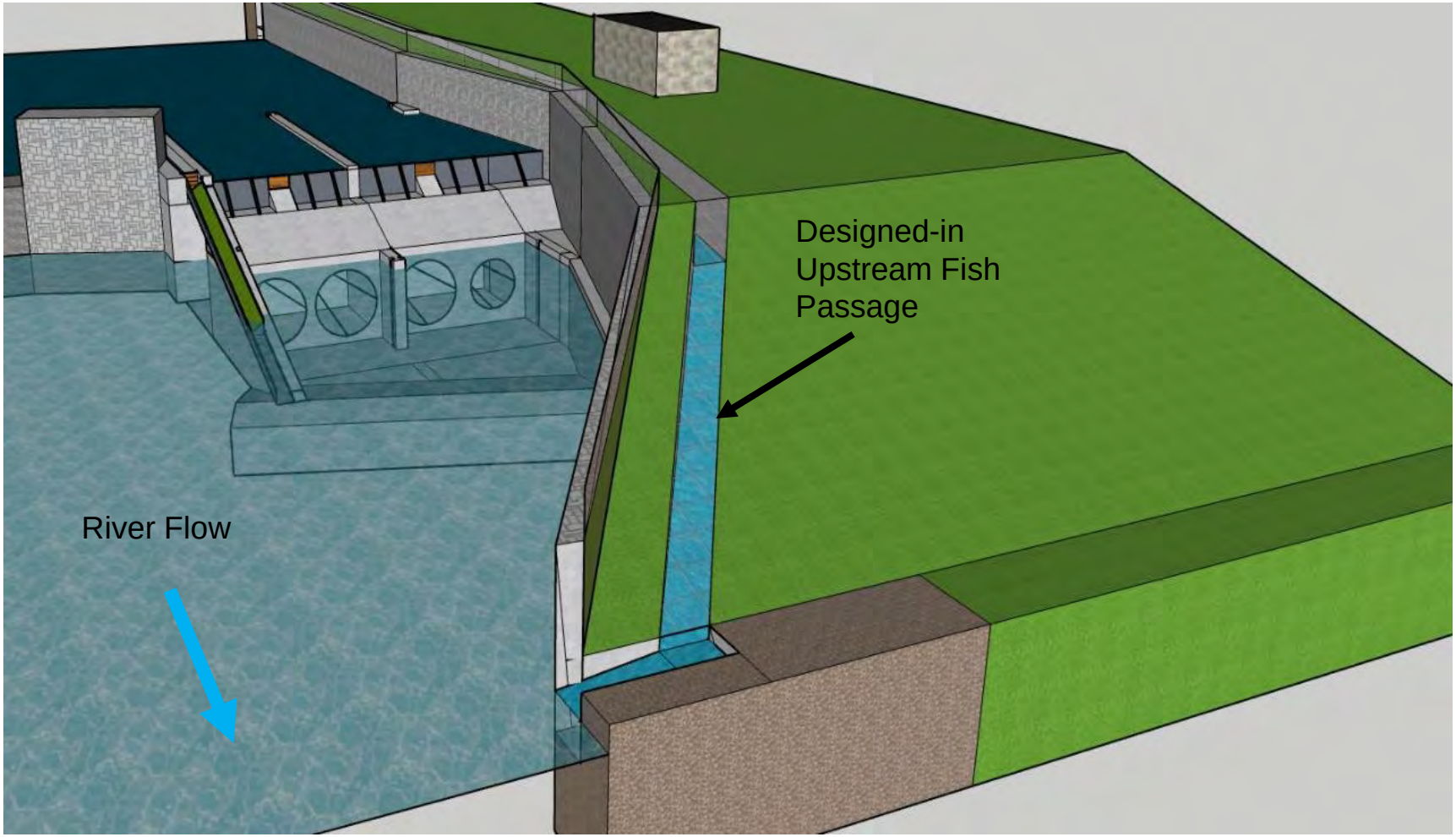
AST/SD Project Footprint Comparison



Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



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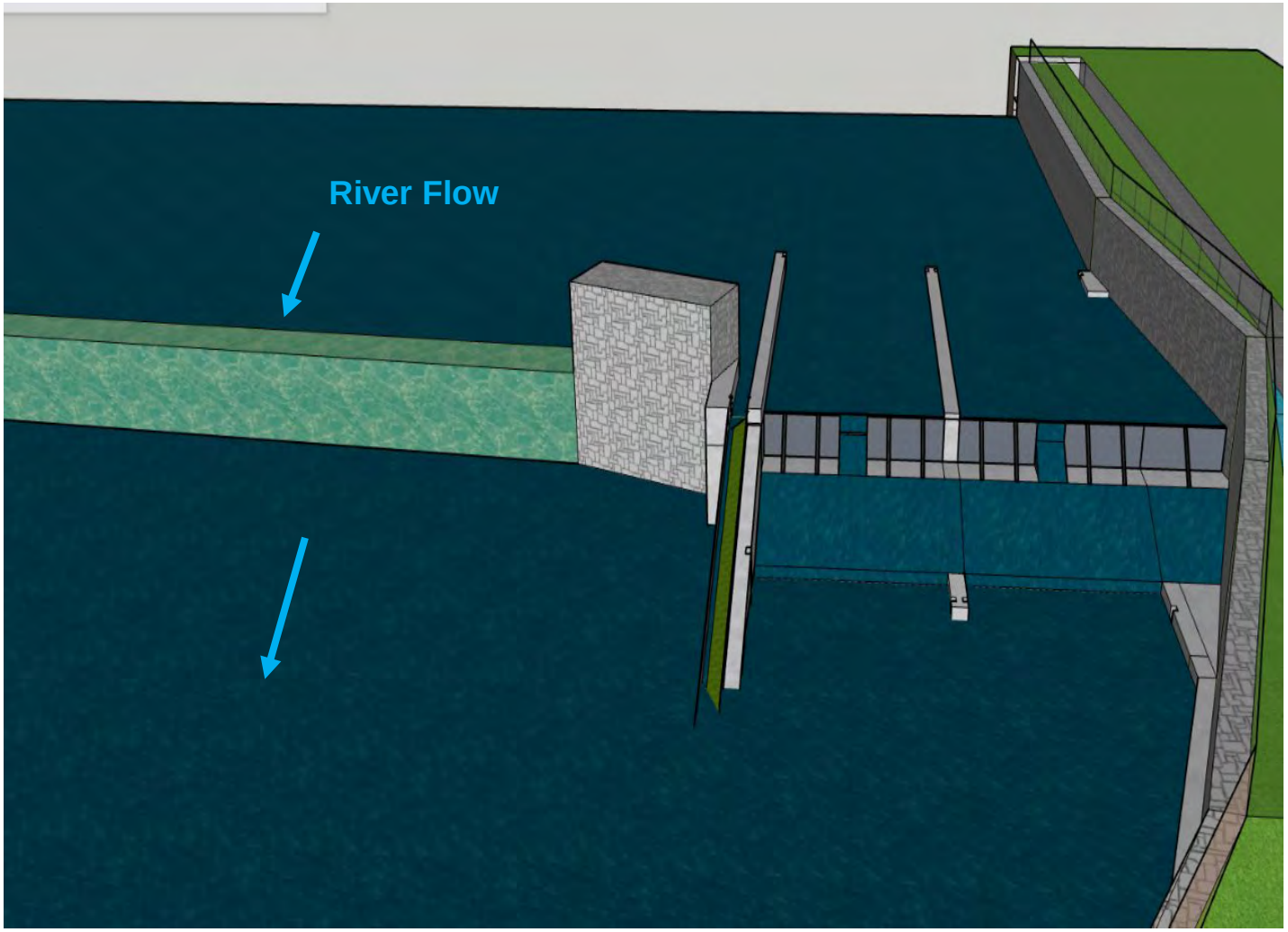
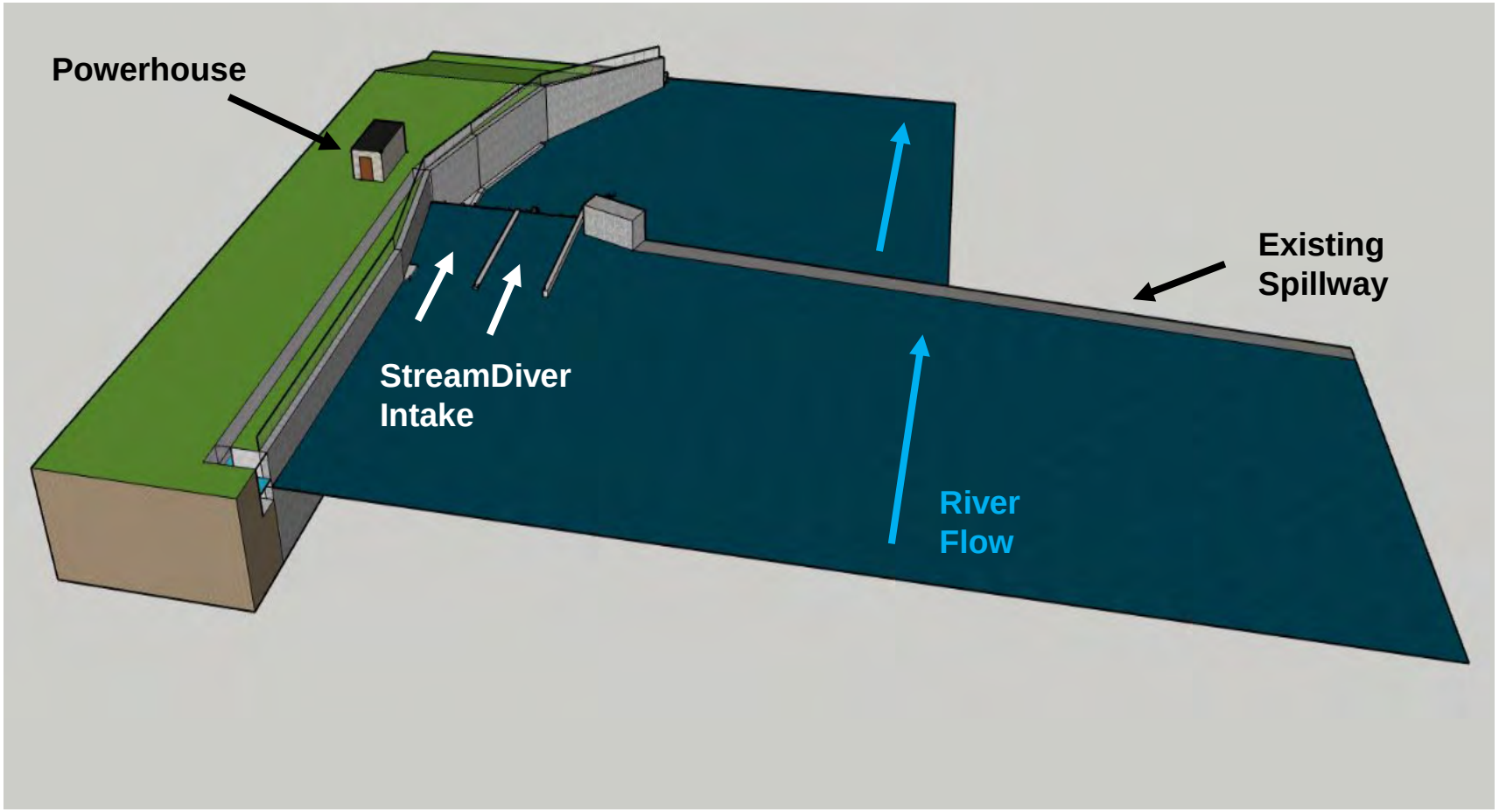


Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



Carol Wasserman <carol@nehydropower.com>

May 13th Technical Meeting Summary

1 message

Carol Wasserman <carol@nehydropower.com> Tue, May 18, 2021 at 12:00 PM
To: "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>
Cc: "Gagnon, Ron (DEM)" <ron.gagnon@dem.ri.gov>

Chuck:

I am preparing a meeting summary for the Thursday, May 13th meeting. I am not certain of all of the DEM participants. I have listed you, Eric Beck, Neal Personeous, Marty Wencek, Joe Camara, Alan Libby, Sarah Frazar, and Nick Pisani. I do not recall if Phil Edwards joined us.

Can you confirm the list and add/omit participants I have mistaken?

Thanks.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com>

Ashton Dam Agency Consultations RIDEM

1 message

Carol Wasserman <carol@nehydropower.com> Wed, May 12, 2021 at 1:41 PM
Reply-To: Carol Wasserman <carol@nehydropower.com>
To: neal.personeus@dem.ri.gov, Carol Wasserman <carol@nehydropower.com>

Teams Meeting Invitation for Thursday, May 13, 2021, 9:30

Ashton Dam Agency Consultations RIDEM

When Thu May 13, 2021 9:30am – 10:30am Eastern Time - New York

Where https://teams.microsoft.com/l/meetup-join/19%3ameeting_NzVjNzNhOTUtZWIxNS00MWUyLTkwYzAtZDJjZTYxZjk2ZGEy%40thread.v2/0?context=%7b%22Tid%22%3a%220a70f69b-cf13-47ab-a6d7-c79e80f5704f%22%2c%22Oid%22%3a%220addc7db-592c-445d-89f5-fc570391302a%22%7d (map)

Joining info Join with Google Meet
meet.google.com/rez-ajdi-efx

Join by phone
(US) +1 502-272-9375 (PIN: 929961962)

More phone numbers

Who
- Carol Wasserman - organizer
- neal.personeus@dem.ri.gov
- eric.beck@dem.ri.gov
- jennifer.jones@kleinschmidtgroup.com
- Michael Kerr
- chris@dovidiolaw.com
- patrick@nehydropower.com
- austin.cormier@kleinschmidtgroup.com
- tyler.kreider@kleinschmidtgroup.com
- glendon@nehydropower.com
- jeffrey@nehydropower.com
- martin.wencek@dem.ri.gov
- chuck.horbert@dem.ri.gov

You're invited to join a Microsoft Teams meeting

Join on your computer or mobile app
Click here to join the meeting

Carol Wasserman <carol@nehydropower.com>

Ashton Dam Hydroelectric Project; Draft Application

1 message

Carol Wasserman <carol@nehydropower.com> Fri, Jul 16, 2021 at 3:26 PM
To: "Horbert, Chuck (DEM)" <Chuck.Horbert@dem.ri.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>

Good afternoon, Chuck. I have attached to this email a copy of the notice letter transmitting the Draft Hydropower License Application prepared for the Ashton Dam Project; P-14634.

I sent the full Draft Application to your attention, in hard copy and flash drive, by USPS mail earlier today.

NEHC would appreciate RIDEM's review and comments.

Thanks so much.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

2021-07-16_CL_DEM_Draft Application.pdf
188K

Carol Wasserman <carol@nehydropower.com>

FW: Ashton Dam Hydropower Project - Consultation Request

3 messages

Gagnon, Ron (DEM) <Ron.Gagnon@dem.ri.gov> Thu, May 13, 2021 at 9:35 AM
To: Carol Wasserman <carol@nehydropower.com>

-----Original Appointment-----
From: Gagnon, Ron (DEM)
Sent: Tuesday, April 20, 2021 1:58 PM
To: Gagnon, Ron (DEM); Carol Wasserman; glendon@nehydropower.com; Horbert, Chuck (DEM); Frazar, Sarah (DEM); Personeus, Neal (DEM); Wencek, Martin (DEM); Pisani, Nicholas (DEM)
Cc: Beck, Eric (DEM); Libby, Alan (DEM); McGee, Patrick (DEM); Camara, Joseph (DEM)
Subject: Ashton Dam Hydropower Project - Consultation Request
When: Thursday, May 13, 2021 9:30 AM-10:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Microsoft Teams Meeting

Microsoft Teams meeting

Join on your computer or mobile app

Click here to join the meeting

Learn More | Meeting options

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3 attachments

2021-04-13_RIDEM_Consultation_Correspondence.pdf
614K

2021-04-13_Ashton Presentation.pptx
7480K

invite.ics
5K

Carol Wasserman <carol@nehydropower.com> Thu, May 13, 2021 at 9:45 AM
To: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Gabriel Martin <Gabriel.Martin@kleinschmidtgroup.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Scott Rabideau <nrsscott@gmail.com>, Charles Aquilina <Charles.Aquilina@kleinschmidtgroup.com>, Jennifer Jones <Jennifer.Jones@kleinschmidtgroup.com>, Patrick Wendt <Patrick@nehydropower.com>, Alex Joyce

<alex@nehydropower.com>, Christopher DOvidio <chris@dovidiolaw.com>, Michael Kerr <michael@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>

New Link

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

3 attachments

invite.ics
5K

2021-04-13_RIDEM_Consultation_Correspondence.pdf
614K

2021-04-13_Ashton Presentation.pptx
7480K

Carol Wasserman <carol@nehydropower.com> Thu, May 13, 2021 at 9:50 AM
To: Jeffrey Mobed <jeffrey@nehydropower.com>

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

---------- Forwarded message ---------
From: **Gagnon, Ron (DEM)** <Ron.Gagnon@dem.ri.gov>
Date: Thu, May 13, 2021 at 9:35 AM
[Quoted text hidden]
[Quoted text hidden]

3 attachments

invite.ics
5K

2021-04-13_RIDEM_Consultation_Correspondence.pdf
614K

2021-04-13_Ashton Presentation.pptx
7480K

Carol Wasserman <carol@nehydropower.com>

Ashton Dam Hydroelectric Project

1 message

Camara, Joseph (DEM) <joseph.camara@dem.ri.gov> Thu, Jul 18, 2019 at 3:39 PM
To: "Personeus, Neal (DEM)" <neal.personeus@dem.ri.gov>, "Edwards, Phillip (DEM)" <phillip.edwards@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "Sparks, Catherine (DEM)" <catherine.sparks@dem.ri.gov>, "Grader, Melissa" <Melissa_Grader@fws.gov>, Carol Wasserman <carol@nehydropower.com>

Hi All,

I am forwarding a copy of the RIDEM letter dated July 17, 2019. The document indicates that the RIDEM is accepting the Terms and Conditions that are listed in the license application for the Ashton Dam Hydroelectric Project.

Joseph Camara

Senior Engineer

Office of Water Resources

RIDEM letter - Terms and Conditions.pdf
65K

Carol Wasserman <carol@nehydropower.com>

RE: [EXTERNAL] : Response to RIDEM Comments - Ashton Dam; P-14634

3 messages

Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov> Tue, Oct 26, 2021 at 1:50 PM
To: Carol Wasserman <carol@nehydropower.com>, Melissa Grader <Melissa_Grader@fws.gov>
Cc: "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Frazar, Sarah (DEM)" <Sarah.Frazar@dem.ri.gov>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "DiPrete, Megan (DEM)" <Megan.DiPrete@dem.ri.gov>, "Edwards, Phillip (DEM)" <phillip.edwards@dem.ri.gov>, John Baummer <John.Baummer@ferc.gov>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>

Good afternoon, Carol. Thank you for providing the responses to our comments. While we did in fact include, as a courtesy, indication of some anticipated terms and conditions that would be included in any future Water Quality Certification, we do not believe that additional terms and conditions can sufficiently address all of our concerns and comments. Aside from the fact that Section 30 (c) of the FPA does not apply to FERC's Traditional Licensing review process, our comments were intended more to improve and revise your License Application to FERC prior to submittal, as well as ensuring that NEHC was informed as to what additional information our state agencies will require as part of a Water Quality Certification request and/or a Freshwater Wetlands Application. As just one specific example…while we will accept the 100 cfs minimum flow over the main spillway to the short bypass reach and may entertain even less flow, we expect New England Hydro to come forward with a specific proposal, with supporting documentation, in the event it proposes a flow of less than 100 cfs. This cannot be conditioned as part of review of a future application.

Additionally, since there have already been many changes to this project since it was first put forth, with further (and potentially substantive) changes forthcoming, we anticipate the need for further consultation. We are also concerned to learn that the draft FLA that we just commented on may not have been sent to all applicable agencies. In a recent meeting held at the request of the Superintendent of the Blackstone River Valley National Historical Park (BRVNHP), we were advised that neither they nor the Blackstone River Watershed Council had been apprised of the change to the project away from the Archimedes Screws to the Kaplan Streamdiver turbines. The full application review process and consultation process allows all agencies the opportunity for review of future changes and adjustments to both the project and the site conditions. For instance, it recently came to our attention that the dam and property on both sides of the river here are now within the boundaries that have been established for the Ashton unit of the BRVNHP…see the link to the map below:

https://www.nps.gov/blrv/planyourvisit/upload/blrv-park-boundary-map.pdf

This may have significant ramifications for the design of the project, or whether it can even go forward. If you have not already, I strongly recommend that you contact the National Park Service through Superintendent Wm. Eric Breitkreutz of the NPS to get further information on how its location within National Park boundaries may affect this proposal.

In summary, RIDEM will not concur to a waiver of further consultations as we proceed through the Traditional License review process with FERC. We nevertheless look forward to working cooperatively in any way we can as you proceed through licensing of this project to ensure that the project addresses all State permitting requirements.

Kind regards,

Chuck Horbert, Deputy Administrator

Groundwater & Freshwater Wetlands Protection

RIDEM Office of Water Resources

(401) 222-6820, ext. 2777402

From: Carol Wasserman <carol@nehydropower.com>
Sent: Thursday, October 14, 2021 12:46 PM
To: Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>; Melissa Grader <Melissa_Grader@fws.gov>
Cc: Libby, Alan (DEM) <alan.libby@dem.ri.gov>; McGee, Patrick (DEM) <patrick.mcgee@dem.ri.gov>; Frazar, Sarah (DEM) <Sarah.Frazar@dem.ri.gov>; Beck, Eric (DEM) <eric.beck@dem.ri.gov>; DiPrete, Megan (DEM) <Megan.DiPrete@dem.ri.gov>; Edwards, Phillip (DEM) <phillip.edwards@dem.ri.gov>; John Baummer <John.Baummer@ferc.gov>
Subject: [EXTERNAL] : Response to RIDEM Comments - Ashton Dam; P-14634

NEHC, with this transmission, responds to RIDEM's 10/06/21 comments on the draft license application proffered in July 2021. Given the overlapping interests of the U.S. Fish and Wildlife Service with the issues raised in RIDEM's comments, NEHC has developed its response to the comments in the form of Proposed Preliminary Terms and Conditions, as contemplated under Section 30 (c) of the Federal Power Act. NEHC invites any additional proposed T&Cs from either the Service or from RIDEM.

NEHC recently provided to the Service and RIDEM with the specifications of the StreamDiver turbines and revised Exhibit G (project boundary) and Exhibit F (Proposed Conditions) drawings. NEHC will file the digital files with FERC upon submission of the final license application.

Assuming incorporation of additional T&Cs, or responses to comments, into the final application, which will be filed this month, we will request that the Service and RIDEM concur on our request to waive further consultation stages.

Please let me know if you have any questions or concerns with this approach.

Thank you.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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www.NEHydropower.com [nehydropower.com]

+1 (339) 293-3157

"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com> Tue, Oct 26, 2021 at 3:05 PM
To: "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>
Cc: Melissa Grader <Melissa_Grader@fws.gov>, "Libby, Alan (DEM)" <alan.libby@dem.ri.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Frazar, Sarah (DEM)" <Sarah.Frazar@dem.ri.gov>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "DiPrete, Megan (DEM)" <Megan.DiPrete@dem.ri.gov>, "Edwards, Phillip (DEM)" <phillip.edwards@dem.ri.gov>, John Baummer <John.Baummer@ferc.gov>, "Breitkreutz, William E" <Eric_Breitkreutz@nps.gov>, "Gray, Terry (DEM)" <terry.gray@dem.ri.gov>

Thank you for the comments, Chuck. We had tried to acknowledge agreement and understanding of your comments by actually incorporating them. Any agency or stakeholder with standing may certainly comment further after the application is submitted.

We will be including proof of distribution and legal notices (requisite 2 consecutive weeks of publication in a publication serving Providence County) with the application, demonstrating that all relevant stakeholders received the notice prescribed by FERC. I am attaching here the April 2021 updates provided to the agencies (e.g. USFWS, NOAA, RIDEM, RISHPO, RITHPO, BRWA) and filed with FERC addressing the changes to the Project configuration and equipment consultation. I am also attaching the May 11, 2021 correspondence received from the RI Historical Preservation and Heritage Commission.

The location of both the Albion and Ashton Projects within the National Historic Park Corridor was provided and referenced during the June 2017 Joint Agency Public Meeting, and repeated in the December 28, 2020 Amended Application filing (E-35). We never received any comments from the NPS or anyone else on the location. Further, RIDEM concurred concerning the location within the park on the Albion License and the State Properties Committee granted perpetual easements for both of the projects, as located.

I find it extremely unfortunate that you have stated that RIDEM will "refuse to concur" on waiving Second Stage Consultation, as the record of outreach, provision of updates and information, and timely responses to all comments received certainly demonstrates that NEHC has fulfilled its obligations under 18 CFR Section 4.38.

I would be happy to discuss further.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

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2 attachments

2021-04-13_FERC_Agency Consultations.pdf
2123K

2021-05-11_RIHPHC Ashton Dam Hydroelectric Cumberland Lincoln.pdf
110K

Carol Wasserman <carol@nehydropower.com> Fri, Oct 29, 2021 at 6:10 PM
To: Christopher DOvidio <chris@dovidiolaw.com>

Ashon - Chuck's out-of time comments (the comment period closed on 10/13) and my response.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Re: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland

15 messages

Beck, Eric (DEM) <eric.beck@dem.ri.gov> Mon, Nov 22, 2021 at 7:17 AM
To: Carol Wasserman <carol@nehydropower.com>

Carol, I will review today and get back to by the end of the day tomorrow.

Eric

Get Outlook for iOS

From: Carol Wasserman <carol@nehydropower.com>
Sent: Sunday, November 21, 2021 9:26:28 AM
To: Beck, Eric (DEM) <eric.beck@dem.ri.gov>
Cc: Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>; Jeffrey Mobed <jeffrey@nehydropower.com>; Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>
Subject: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland

Hi, Eric. We are working on the RIDEM consolidated wetland/WQ/RIPDES permit application right now. We had the technical pre-application meeting in the spring with you, Marty, Chuck, Phil, and Alan.

I have a question concerning flood storage at the Ashton Dam project. We are showing, post construction, a net fill calculation of ~285 CY. Can we balance that fill against the 110 CY of net cut (compensation) from the tailwater of Albion Hydroelectric Project? The Albion project is located in the same river, approximately 1.2 miles downstream.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

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"To Every Thing There is a Season..."

Carol WASSERMAN <carol@nehydropower.com> Mon, Nov 22, 2021 at 7:31 AM
To: Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

I passed the flood storage question to Eric Beck at RIDEM. He is the stormwater lead. Marty Wencek would have passed the question to him.

Carol - Sent from my iPhone

Begin forwarded message:

> **From:** "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>
> **Date:** November 22, 2021 at 7:17:33 AM EST
> **To:** Carol Wasserman <carol@nehydropower.com>
> **Subject: Re: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland**

[Quoted text hidden]

Carol WASSERMAN <carol@nehydropower.com> Mon, Nov 22, 2021 at 7:33 AM
To: Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

Thanks, Eric. We are refining the design now to develop the permit application.

Carol

> On Nov 22, 2021, at 7:31 AM, Carol WASSERMAN <carol@nehydropower.com> wrote:
>
> I passed the flood storage question to Eric Beck at RIDEM. He is the stormwater lead. Marty Wencek would have passed the question to him.
> [Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Nov 23, 2021 at 10:10 AM
To: "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>
Cc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

Hi, Eric. Do you need more information regarding the cut/fill numbers?

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Beck, Eric (DEM) <eric.beck@dem.ri.gov> Tue, Nov 23, 2021 at 10:45 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>, "Pisani, Nicholas (DEM)" <nicholas.pisani@dem.ri.gov>

Carol, thanks for reaching out. I spoke with Chuck, Marty and Nick and here is their response:

We have dealt with this issue before (compensation to balance out fill in floodplain over different projects) and have specific guidance on floodplain compensation posted to our website. http://www.dem.ri.gov/programs/benviron/water/wetlands/pdfs/floodpln.pdf

Compensatory storage must be located within the same reach of the river or flowing body of water (i.e., between the nearest features controlling the flood water elevations upstream and downstream from the proposed displacement area) as the project involving flood water displacement, and must be located as close to the proposed displacement area as possible;

Chuck and Nick responded that it would not be possible to use Albion to compensate for Ashton because the two sites are in entirely different stretches of the river, with a difference in floodplain elevation between the two sites of approx. 7 feet.

If on the Ashton project there is no opportunity to compensate you will have to take the approach of doing a floodplain HEC-RAS analysis in an attempt to demonstrate that the loss of flood storage will have no detrimental upstream or downstream effects. The use of an unsteady HEC-RAS model will be best to quantify the magnitude and extent of any impacts to water level associated with the volumetric floodplain displacement.

If you need any further clarification on the options for floodplain compensation please coordinate with Nick Pisani (copied here).

Thanks and have a great holiday.

Eric A. Beck, P.E. Administrator

Rhode Island Department of Environmental Management

Bureau of Environmental Protection

Groundwater and Freshwater Wetlands Permitting

Office of Water Resources

(401) 277-4700 NEW ext 2777700

eric.beck@dem.ri.gov

STAY INFORMED on our ***New* Freshwater Wetlands Rules**, going into effect on January 15, 2022! For info, go to **dem.ri.gov/newwetlandsrules**

ONLINE PERMIT SEARCH TOOLS: View Permit Status, Historical Information and download available documents at dem.ri.gov/waterpermits

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, November 23, 2021 10:10 AM
To: Beck, Eric (DEM) <eric.beck@dem.ri.gov>
Cc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>
Subject: Re: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland

Hi, Eric. Do you need more information regarding the cut/fill numbers?

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

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"To Every Thing There is a Season..."

On Mon, Nov 22, 2021 at 7:17 AM Beck, Eric (DEM) <eric.beck@dem.ri.gov> wrote:

> Carol, I will review today and get back to by the end of the day tomorrow.
>
> Eric
>
> Get Outlook for iOS [aka.ms]
>
> [Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Nov 23, 2021 at 12:16 PM
To: "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>
Cc: "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>, "Pisani, Nicholas (DEM)" <nicholas.pisani@dem.ri.gov>
Bcc: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>, Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Michael Kerr <michael@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>

Hi, Eric. I just left you VM re: flood storage guidance. I understand the response to some extent, but I am confused when you say these are two different reaches, apparently the basis for not applying the 110 cy of compensatory storage at Albion for the estimated 285 cy of fill at Ashton.

According to the water quality regulations and the 303(d) report, Albion and Ashton, located approximately 1.2 miles apart, are within the same reach: RI00001003R-01A. Please see the attached visual.

Would you be available to discuss this at some point with our engineers? As you said, this issue arose once before at Albion and I think it would be most efficient if we can resolve this prior to submitting the consolidated permit application.

BTW, Eric, the phone number listed on your recent email: (401) 277-4700, connects to an auto club. I think the number should read: (401) 222-4700 x 2777700.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

RI00001003R-01A.pdf
8351K

Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov> Tue, Nov 23, 2021 at 12:36 PM
To: Carol Wasserman <carol@nehydropower.com>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>
Cc: "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>

Hi all,

The reach you are referring to is a water quality reach. These are not the same as floodplain reaches. Floodplain reaches are those that are formed by distinct changes in the slope of the flood profile on the FEMA flood cross-section. These changes typically are found at dams, those bridges that may form constrictions to flow, and such natural features that may allow for sharp drops in the floodplain profile. You should look at the FEMA floodway river profile to help discern where these boundaries to floodplain reaches are located in the area in question.

Nick A. Pisani

Nicholas A. Pisani, P.E.

Environmental Engineer IV

Rhode Island Department of Environmental Management

Office of Water Resources – Stormwater Engineering and 401 Permitting

235 Promenade Street, Providence, RI 02908

Phone: (401) 222-4700 x2777423; Fax: (401) 222-3927

Email: Nicholas.Pisani@dem.ri.gov

***New!* Water Quality Certification and Stormwater Construction Permit Online Search Tool**

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Visit our updated webpage: dem.ri.gov/stormwaterconstruction

ONLINE PERMIT SEARCH TOOLS: View Permit Status, Historical Information and download available documents at dem.ri.gov/waterpermits

---

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, November 23, 2021 12:17 PM
To: Beck, Eric (DEM) <eric.beck@dem.ri.gov>
Cc: Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>; Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>; Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov>
Subject: Re: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland

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According to the water quality regulations and the 303(d) report, Albion and Ashton, located approximately 1.2 miles apart, are within the same reach: RI00001003R-01A. Please see the attached visual.

Would you be available to discuss this at some point with our engineers? As you said, this issue arose once before at Albion and I think it would be most efficient if we can resolve this prior to submitting the consolidated permit application.

BTW, Eric, the phone number listed on your recent email: (401) 277-4700, connects to an auto club. I think the number should read: (401) 222-4700 x 2777700.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

[Quoted text hidden]

[Quoted text hidden]

Beck, Eric (DEM) <eric.beck@dem.ri.gov> Tue, Nov 23, 2021 at 12:37 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>, "Pisani, Nicholas (DEM)" <nicholas.pisani@dem.ri.gov>

Carol, please reach out to Chuck Horbert on our availability and to set up a time to discuss.

Thanks

Eric A. Beck, P.E. Administrator

Rhode Island Department of Environmental Management

Bureau of Environmental Protection

Groundwater and Freshwater Wetlands Permitting

Office of Water Resources

(401) 222-4700 NEW ext 2777700

eric.beck@dem.ri.gov

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, November 23, 2021 12:17 PM
To: Beck, Eric (DEM) <eric.beck@dem.ri.gov>
Cc: Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>; Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>; Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov>
Subject: Re: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland

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BTW, Eric, the phone number listed on your recent email: (401) 277-4700, connects to an auto club. I think the number should read: (401) 222-4700 x 2777700.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

[Quoted text hidden]

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Nov 23, 2021 at 12:38 PM

To: "Pisani, Nicholas (DEM)" <nicholas.pisani@dem.ri.gov>
Cc: "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>

Got it, Nick. Thanks.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov> Tue, Nov 23, 2021 at 2:26 PM
To: Carol Wasserman <carol@nehydropower.com>, "Pisani, Nicholas (DEM)" <nicholas.pisani@dem.ri.gov>
Cc: "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>

Hi Carol,

One other thing I think that needs to be clarified is the "consolidated permit application". Like last time with Albion, there will be one consolidated application for the FWW, RIPDES and **State** Water Quality Certification. That review will be handled by the FWW Program and coordinated with the WQC Program.

However, a separate and distinct application will also be needed for the Federal Section 401 Clean Water Act Water Quality Certification. Despite the fact that the 2020 Section 401 Certification Rule being vacated by the District Court for Northern CA, one of the things that the Certification Rule brought into focus is that there are differences in the Certification issued under the Clean Water Act for a Federal Permit, and the separate State permit issued as a Water Quality Certificate under our Water Quality Rules. So, there are actually two related Water Quality Certification Actions: The WQC issued under Section 401 of the Clean Water Act that will be issued to FERC as part of their licensing process, and the State WQC under the Water Quality Regulations that would be considered issued when a Freshwater Wetlands Permit is issued.

I apologize if this is confusing...I think the whole Water Quality Certification Rule mess that we all went through has ended up being a learning experience for both the federal agencies and the State, as it certainly has been for applicants. The upshot is that the WQC form should be submitted directly to the WQC Program, and either a second original form or a copy of the form also be sent with the FWW permit application. This may work out better for you since the two permitting pathways operate under differing timelines.

-Chuck Horbert

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, November 23, 2021 12:38 PM
To: Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov>
Cc: Beck, Eric (DEM) <eric.beck@dem.ri.gov>; Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>; Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>
Subject: Re: [EXTERNAL] : Ashton Dam Flood Storage, Cumberland

Got it, Nick. Thanks.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

[Quoted text hidden]

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Tue, Nov 23, 2021 at 2:32 PM
To: "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>
Cc: "Pisani, Nicholas (DEM)" <nicholas.pisani@dem.ri.gov>, "Beck, Eric (DEM)" <eric.beck@dem.ri.gov>, "Wencek, Martin (DEM)" <martin.wencek@dem.ri.gov>

Thank you, Chuck. I was wondering how DEM was going to handle this. I know the district court vacated the 2020 rule, but without regulations, I was not sure how this would be handled. This clarifies things.

Thank you.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com> Mon, Nov 29, 2021 at 9:52 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>

Hi Carol,

Hope you had a nice Thanksgiving.

Any more from RIDEM on this? Let me know if you end up setting up a call with them to discuss further so I can arrange to have the right KA folks on the line.

Thanks,

Eric

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, November 23, 2021 12:17 PM
To: Beck, Eric (DEM) <eric.beck@dem.ri.gov>

Cc: Horbert, Chuck (DEM) <chuck.horbert@dem.ri.gov>; Wencek, Martin (DEM) <martin.wencek@dem.ri.gov>; Pisani, Nicholas (DEM) <nicholas.pisani@dem.ri.gov>

[Quoted text hidden]

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Nov 29, 2021 at 9:53 AM
To: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>
Cc: Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>

I have a call into RIDEM now. I will let you know.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com> Fri, Dec 3, 2021 at 4:45 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Austin Cormier <Austin.Cormier@kleinschmidtgroup.com>, Gabriel Martin <Gabriel.Martin@kleinschmidtgroup.com>, Jennifer Jones <Jennifer.Jones@kleinschmidtgroup.com>, Jeffrey Mobed <jeffrey@nehydropower.com>

Hi Carol,

Any more from RIDEM on cut/fill compensation and flood storage at Ashton?

In addition to requesting clarification from RIDEM on whether or not we can take credit for the net cut at Albion, we are pursuing two other paths simultaneously:

1. We're looking at the design to try to find ways to reduce the fill within the floodplain. Attached is a sketch showing 3 options. Here's a summary of our estimated volumes:
    a. Current Design – Net Fill of ~297 cubic yards (CY)
    b. Option A – Fill Reduction of ~8 CY
    c. Option B – Fill Reduction of ~230 CY
    d. Option C – Cut of ~170 CY

    I think the best/easiest solution would be to implement Option B (lower the driveway/parking lot to reduce the fill) and, if we can, take credit for the net cut at Albion. Those two things combined would bring it to a net cut when looking at the two projects together…..if RIDEM will allow that. Combining options A and B would get us to a net cut situation at Ashton alone, but it requires removing some of the existing stone wall (which we may have to do anyway) and removing/disposing some fill that we might otherwise not have to do. Option C also probably requires some additional riprap and/or concrete to armor the slope and edge of the parking lot.

2. I also talked to Jenny about doing some hydraulic modeling to evaluate the impacts of a net fill within the floodplain. This was a suggestion by RIDEM in their email below, and is now the second time they've suggested

doing a dynamic/unsteady model. We're getting the impression this is something they really want and therefore something we may end up having to do eventually to address their concerns about flood storage (recall they expressed concerns previously and we attempted to address them with simple hand calcs, discharge rating curves, and a memo – not sure if that has/will satisfy them.) Our initial estimate for cost to do this type of modeling is on the order of $15,000. It's hard to predict what the results of the modeling will look like. It could show no "detrimental" impacts and then we wouldn't have to change the design at all. Or it could confirm a net fill is unacceptable and then we still have to implement one or more design changes to reduce the fill. One question that we'd have to answer before going down the modeling path is, what is the definition of "detrimental impact"? If you think this is a path we need to go down (now or eventually), we can do a bit of research into RIDEM's guidelines to see if we can find a clear definition, but we will likely ultimately want to ask RIDEM to confirm the acceptance criteria.

Please let us know your thoughts on the above options and paths forward. I'm happy to set up a small group call if you have questions or wish to discuss in more detail.

Have a great weekend!

Thanks,

Eric

Eric Turgeon

Senior Engineering Consultant

Kleinschmidt

O: 207.416.1286 C: 207.841.9652

Follow us on LinkedIn

We provide practical **solutions** *for renewable energy, water and environmental projects!*

[Quoted text hidden]

4161008 CutFill Alternatives.pdf
736K

Carol Wasserman <carol@nehydropower.com> Fri, Dec 3, 2021 at 4:57 PM
To: Eric Turgeon <Eric.Turgeon@kleinschmidtgroup.com>

RIDEM response to flood compensation.

Expletives Deleted!@#$%^&*()

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

---------- Forwarded message ---------
From: **Beck, Eric (DEM)** <eric.beck@dem.ri.gov>
[Quoted text hidden]
[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Ashton Dam Easement

2 messages

Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov> Thu, Sep 3, 2020 at 9:23 AM
To: D'Ovidio Law <chris@dovidiolaw.com>
Cc: Carol Wasserman <carol@nehydropower.com>, "Santilli, Christopher (DOT)" <Christopher.Santilli@dot.ri.gov>, "Almagno, Stephen (DOT)" <Stephen.Almagno@dot.ri.gov>, "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>

Chris, thank you for this information. It will be forwarded to RIDOT engineers for review. I apologize for the late notice but a schedule conflict has arisen on my end. That aside, after discussing this internally, RIDOT feels it will be more productive to meet with NE Hydropower after RIDOT engineers have reviewed and commented on the proposed easements. As you probably are aware, RIDOT cannot grant any easement on state owned land until RIDOT engineers have approved it first. Engineering approval is a prerequisite to the granting of all RIDOT easements. That said, it makes sense to receive RIDOT engineer comments before we discuss this. This will allow any engineering concerns to be addressed in our discussion.

All that said, I am going to cancel this morning's meeting and will schedule another meeting once the internal review process is completed. Chris Santilli is coordinating the review of these easements with RIDOT engineers and other departmental units. I know that you are looking to have the Ashton easements approved by **April 1, 2021**. I am confident the easements can be approved within this time frame, assuming engineering and other departmental units approve.

As always, please feel free to call me with any questions.

Kindly,

Amy D'Alessandro, Esq.

Deputy Chief of Legal Services, DOT

401-563-4162

From: D'Ovidio Law <chris@dovidiolaw.com>
Sent: Wednesday, September 2, 2020 3:01 PM

To: Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov>; Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov>; Almagno, Stephen (DOT) <Stephen.Almagno@dot.ri.gov>; Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov>
Cc: Carol Wasserman <carol@nehydropower.com>
Subject: Re: [EXTERNAL] : Re: Ashton Dam Easement

All:

In advance of our meeting tomorrow and for your convenience, the pertinent documents for discussion are attached:

1. Project site location map;
2. Project site-survey with proposed easements;
3. Draft Temporary Easement;
4. Draft Perpetual Easement;
5. Albion Dam_RIDEM Upland Appraisal (for comparison purposes); and
6. Ashton Dam_RIDEM Upland Appraisal (for comparison purposes).

Lastly, Carol Wasserman, NEHC's Chief Permitting Officer, will be attending the conference call to field technical questions.

CHRISTOPHER A. D'OVIDIO

D'OVIDIO LAW

469 CENTERVILLE ROAD, SUITE 204

WARWICK, RI 02886

401.952.1494

On Sep 2, 2020, at 1:57 PM, Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov> wrote:

No it hasn't gone out yet, there was supposed to be a call? I thought that was scheduled for tomorrow?

From: D'Ovidio Law <chris@dovidiolaw.com>
Sent: Thursday, August 20, 2020 3:47 PM
To: Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov>
Cc: Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov>; Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov>; Almagno, Stephen (DOT) <Stephen.Almagno@dot.ri.gov>
Subject: Re: [EXTERNAL] : Re: Ashton Dam Easement

Ok - Thanks.

CHRISTOPHER A. D'OVIDIO

D'OVIDIO LAW

469 CENTERVILLE ROAD, SUITE 204

WARWICK, RI 02886

401.952.1494

On Aug 20, 2020, at 10:57 AM, Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov> wrote:

Hello Chris, good to hear from you. Deb Jarrow will schedule a call.

On Sep 2, 2020, at 1:57 PM, Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov> wrote:

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Sent: Thursday, August 20, 2020 3:47 PM
To: Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov>
Cc: Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov>; Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov>; Almagno, Stephen (DOT) <Stephen.Almagno@dot.ri.gov>
Subject: Re: [EXTERNAL] : Re: Ashton Dam Easement

Ok - Thanks.

CHRISTOPHER A. D'OVIDIO

D'OVIDIO LAW

469 CENTERVILLE ROAD, SUITE 204

WARWICK, RI 02886

401.952.1494

> On Aug 20, 2020, at 10:57 AM, Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov> wrote:
>
> Hello Chris, good to hear from you. Deb Jarrow will schedule a call.

From: D'Ovidio Law <chris@dovidiolaw.com>
Sent: Wednesday, August 19, 2020 4:24 PM
To: Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov>; Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov>
Subject: [EXTERNAL] : Re: Ashton Dam Easement

Amy and Vera:

Could we schedule a telephone conference ASAP to revisit the status of the proposed easement on the Bike Path at the Ashton Dam.

Please indicate dates and times of your availability.

Thanks

CHRISTOPHER A. D'OVIDIO

D'OVIDIO LAW

469 CENTERVILLE ROAD, SUITE 204

WARWICK, RI 02886

401.952.1494

On Aug 5, 2020, at 12:56 PM, D'Ovidio Law <chris@dovidiolaw.com> wrote:

Amy and Vera:

Just checking in the status of the proposed easement along the Bike Path near the Ashton Dam.

Would you be available for a telephone conference call this week?

Please advise.

Thanks.

CHRISTOPHER A. D'OVIDIO

D'OVIDIO LAW

469 CENTERVILLE ROAD, SUITE 204

WARWICK, RI 02886

401.952.1494

> On Jul 21, 2020, at 10:32 AM, DOvidioLaw <chris@dovidiolaw.com> wrote:
>
> Amy and Vera:
>
> Following up on our last telephone conference call regarding the Ashton Dam Easement, the last 2 pieces of information need are:

1. Easement Area; and
2. Easement value.

Total easement area = 29,803 +/- square feet, which is comprised of:

Parcel 1A = 24,577 +/- square feet

Parcel 2A-1 = 5,226 +/- square feet

Insofar as easement value, I believe RIDOT will perform the appraisals. If NEHC is required to obtain appraisals, please let me know.

Please advise on the next steps in the process.

Thanks.

CHRISTOPHER A. D'OVIDIO
D'OVIDIO LAW
469 CENTERVILLE ROAD, SUITE 206
WARWICK, RI 02886

401.952.1494 (C)
401.739.2900 Ext. 308
401.739.2906 (F)

Carol Wasserman <carol@nehydropower.com> Thu, Sep 3, 2020 at 9:28 AM
To: Christopher D'Ovidio <chris@dovidiolaw.com>

I just read this. Christopher, I think we need to discuss the lease approach. There is little point in moving further down the easement path and putting these people to all of this effort if in the end, we cannot get the financing.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Albion, Ashton Easements Telephone Conference

1 message

DOT Legal Conference Room 1 <DOT.LCR1@dot.ri.gov> Fri, Oct 16, 2020 at 9:42 AM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>, "Dalessandro, Amy (DOT)" <Amy.DAlessandro@dot.ri.gov>, "Santilli, Christopher (DOT)" <Christopher.Santilli@dot.ri.gov>, D'Ovidio Law <chris@dovidiolaw.com>, Carol Wasserman <carol@nehydropower.com>

Dial-in: 605-475-4926

Access code: 817651

Pin: 5201 for Host only

Please contact debra.jarrow@dot.ri.gov if this meeting date/time is not suitable to your schedule and we will find another convenient time. Thanks.

Deb

Debra A. Jarrow

Chief Implementation Aide

RI Dept. of Transportation

Office of Legal Counsel

Two Capitol Hill, Rm. 160

Providence, RI 02903

Tel: 401-563-4487

Fax: 401-222-4226

E-mail: debra.jarrow@dot.ri.gov

invite.ics
4K

Carol Wasserman <carol@nehydropower.com>

Scope of the Ashton Project/Tel. Conf.: Dial-in Number: (605)313-4166; Access Code: 311983; Pin: 9504 (host only)

2 messages

DOT Legal Conference Room 1 <DOT.LCR1@dot.ri.gov> Mon, Nov 2, 2020 at 9:50 AM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>, "Dalessandro, Amy (DOT)" <Amy.DAlessandro@dot.ri.gov>, "Santilli, Christopher (DOT)" <Christopher.Santilli@dot.ri.gov>, D'Ovidio Law <chris@dovidiolaw.com>, Carol Wasserman <carol@nehydropower.com>

Please contact debra.jarrow@dot.ri.gov if this meeting date/time is not suitable to your schedule and we will find another convenient time. Thanks.

Deb

Debra A. Jarrow

Chief Implementation Aide

RI Dept. of Transportation

Office of Legal Counsel

Two Capitol Hill, Rm. 160

Providence, RI 02903

Tel: 401-563-4487

Fax: 401-222-4226

E-mail: debra.jarrow@dot.ri.gov

invite.ics
4K

D'Ovidio Law <chris@dovidiolaw.com> Mon, Nov 2, 2020 at 9:59 AM
To: DOT Legal Conference Room 1 <DOT.LCR1@dot.ri.gov>
Cc: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>, "Dalessandro, Amy (DOT)" <Amy.DAlessandro@dot.ri.gov>, "Santilli, Christopher (DOT)" <Christopher.Santilli@dot.ri.gov>, Carol Wasserman <Carol@nehydropower.com>

Thank you for scheduling.

CHRISTOPHER A. D'OVIDIO
D'OVIDIO LAW
469 CENTERVILLE ROAD, SUITE 204
WARWICK, RI 02886
401.952.1494

On Nov 2, 2020, at 9:50 AM, DOT Legal Conference Room 1 <DOT.LCR1@dot.ri.gov> wrote:

Please contact debra.jarrow@dot.ri.gov if this meeting date/time is not suitable to your schedule and we will find another convenient time. Thanks.

Deb

Debra A. Jarrow

Chief Implementation Aide

RI Dept. of Transportation

Office of Legal Counsel

Two Capitol Hill, Rm. 160

Providence, RI 02903

Tel: 401-563-4487

Fax: 401-222-4226

E-mail: debra.jarrow@dot.ri.gov

<image001.jpg>

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Scope of the Ashton Project

1 message

DOvidioLaw <chris@dovidiolaw.com> Thu, Nov 5, 2020 at 7:11 PM
To: "Dalessandro, Amy (DOT)" <Amy.DAlessandro@dot.ri.gov>, "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>, "Santilli, Christopher (DOT)" <Christopher.Santilli@dot.ri.gov>, "Jarrow, Debra (DOT)" <Debra.Jarrow@dot.ri.gov>
Cc: "carol@nehydropower.com" <carol@nehydropower.com>

All:

In response to our conversation today, wherein we discussed the pole locations relative to the bike path, please see the attached site plan.

None of the poles are slated to go in the bike path. We plan to place them 100' apart on center in the grass strips adjacent (east and west sides) to the bike path. The attached AutoCAD engineering drawing shows where the poles go, where the power lines go, and where we criss-cross the bike path with overhead wires to avoid placing poles in the bike path.

Please let me know if you have any questions.

CHRISTOPHER A. D'OVIDIO
D'OVIDIO LAW
469 CENTERVILLE ROAD, SUITE 204
WARWICK, RI 02886
401.952.1494 (C)

Ashton NG Plan.pdf
489K

Carol Wasserman <carol@nehydropower.com>

DOT LOA

1 message

Carol Wasserman <carol@nehydropower.com> Wed, Jun 16, 2021 at 9:08 AM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>
Cc: Christopher DOvidio <chris@dovidiolaw.com>, Jeffrey Mobed <jeffrey@nehydropower.com>
Bcc: Michael Kerr <michael@nehydropower.com>

Vera:

Thank you again for your assistance and responses. We can provide proof of insurance as soon as you would like after we sign the agreement.

I have a favor to ask. In reviewing the DOT utility permit application. I tried several times to download the DOT TMP templates from the website without success. Could you possibly forward the template(s)?

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com>

RE: [EXTERNAL] : Re: NEHC Access Bikepath C&M 1990

2 messages

Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov> Tue, Jun 15, 2021 at 9:45 AM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Christopher D'Ovidio <chris@dovidiolaw.com>, "Dalessandro, Amy (DOT)" <Amy.DAlessandro@dot.ri.gov>, "Santilli, Christopher (DOT)" <Christopher.Santilli@dot.ri.gov>, "Almagno, Stephen (DOT)" <Stephen.Almagno@dot.ri.gov>, Jeffrey Mobed <jeffrey@nehydropower.com>

Here is the C&M Agreement between RIDOT and DEM for the Bike path. Basically, RIDOT owns the bike path and DEM maintains it.

Vera H. Querceto, Esquire

Chief Legal Counsel

Rhode Island Department of Transportation

2 Capitol Hill

Providence, RI 02903

Phone: (401) 563-4591

Fax: (401) 222-4226

e-mail: vera.diluglio@dot.ri.gov

From: Carol Wasserman <carol@nehydropower.com>
Sent: Tuesday, June 15, 2021 9:29 AM
To: Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov>
Cc: Christopher D'Ovidio <chris@dovidiolaw.com>; Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov>; Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov>; Almagno, Stephen (DOT) <Stephen.Almagno@dot.ri.gov>; Jeffrey Mobed <jeffrey@nehydropower.com>
Subject: [EXTERNAL] : Re: NEHC Access

Vera:

Thank you for the access agreement LOA; this looks great.

We would still like to conduct a brief meeting today to clarify the division of authority and responsibility between DOT and DEM concerning use, upkeep, and day-to-day management of the bike path. We would also like to provide you with a broader overview of the project.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

+1 (339) 293-3157

"To Every Thing There is a Season..."

On Tue, Jun 15, 2021 at 9:13 AM Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov> wrote:

> Good morning Chris and Carol! RIDOT prefers to use the attached Letter of Authorization form to grant NEHC access to RIDOT property. The LOA will initially be granted for 12 months with two (2) twelve month extensions/options if needed. Our Property Management group is taking the lead on crafting the document and once complete, will forward same to you both. Having granted many LOAs for access to state property, we have found that this is the most efficient method to do so. If you would still like to have our meeting today, please let me know! Vera
>
> Vera H. Querceto, Esquire
>
> Chief Legal Counsel
>
> Rhode Island Department of Transportation
>
> 2 Capitol Hill
>
> Providence, RI 02903
>
> Phone: (401) 563-4591
>
> Fax: (401) 222-4226
>
> e-mail: vera.diluglio@dot.ri.gov
>
>

Blackstone River Bikeway C&M RIDOT & RIDEM 1990.pdf
474K

DOvidioLaw <chris@dovidiolaw.com> Tue, Jun 15, 2021 at 10:29 AM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>
Cc: Carol Wasserman <carol@nehydropower.com>, Amy Dalessandro <Amy.DAlessandro@dot.ri.gov>, Christopher Santilli <Christopher.Santilli@dot.ri.gov>, "Almagno, Stephen (DOT)" <Stephen.Almagno@dot.ri.gov>, Jeffrey Mobed <jeffrey@nehydropower.com>

Vera:

Thanks for all this information.

While I have DOT's attention, attached is the latest site plan for the hydroelectric project proposed at the Ashton Dam. We don't need to discuss in depth today, but I did want to present today to initiate the process.

CHRISTOPHER A. D'OVIDIO
D'OVIDIO LAW
469 CENTERVILLE ROAD, SUITE 204
WARWICK, RI 02886
401.952.1494 (C)

> On Jun 15, 2021, at 9:45 AM, Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov> wrote:
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> Vera H. Querceto, Esquire
> Chief Legal Counsel
> Rhode Island Department of Transportation
> 2 Capitol Hill
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> Phone: (401) 563-4591
> Fax: (401) 222-4226
> e-mail: vera.diluglio@dot.ri.gov
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> **From:** Carol Wasserman <carol@nehydropower.com>
> **Sent:** Tuesday, June 15, 2021 9:29 AM
> **To:** Diluglio, Vera (DOT) <vera.diluglio@dot.ri.gov>
> **Cc:** Christopher D'Ovidio <chris@dovidiolaw.com>; Dalessandro, Amy (DOT) <Amy.DAlessandro@dot.ri.gov>; Santilli, Christopher (DOT) <Christopher.Santilli@dot.ri.gov>;

Almagno, Stephen (DOT) <Stephen.Almagno@dot.ri.gov>; Jeffrey Mobed <jeffrey@nehydropower.com>
Subject: [EXTERNAL] : Re: NEHC Access

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We would still like to conduct a brief meeting today to clarify the division of authority and responsibility between DOT and DEM concerning use, upkeep, and day-to-day management of the bike path. We would also like to provide you with a broader overview of the project.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com [nehydropower.com]

+1 (339) 293-3157

"To Every Thing There is a Season..."

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> Vera H. Querceto, Esquire
> Chief Legal Counsel
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> 2 Capitol Hill
> Providence, RI 02903
> Phone: (401) 563-4591
> Fax: (401) 222-4226
> e-mail: vera.diluglio@dot.ri.gov
>
>

<Blackstone River Bikeway C&M RIDOT & RIDEM 1990.pdf>

Ashton Dam Project_6 15 21.pdf
1235K

Carol Wasserman <carol@nehydropower.com>

FHA TMPs

1 message

Carol Wasserman <carol@nehydropower.com> Wed, Jun 16, 2021 at 9:12 AM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>
Cc: Jeffrey Mobed <jeffrey@nehydropower.com>, Christopher DOvidio <chris@dovidiolaw.com>

Vera:

I went to the FHA Traffic Management Manual (I worked on the Big Dig in Boston for 7 years when I was at MassDEP) and downloaded its TMP template for minor/moderate projects. If this format is satisfactory, no need to forward the DOT template(s0.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

FHA_TMP_Template_min_mod.doc
386K

Carol Wasserman <carol@nehydropower.com>

DOT LOA -Ashton Dam Geotechnical Work

1 message

Carol Wasserman <carol@nehydropower.com> Wed, Jun 16, 2021 at 4:24 PM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>
Cc: Christopher DOvidio <chris@dovidiolaw.com>, Jeffrey Mobed <jeffrey@nehydropower.com>
Bcc: Michael Kerr <michael@nehydropower.com>

Hi, Vera. We had a very good discussion with Mary Kay at RIDEM earlier today. Based on that, NEHC used the DOT LOA template to forward a draft LOA to RIDEM this afternoon.

As I mentioned, if DOT is satisfied with the draft LOA provided yesterday, we will request the insurance certifications and execute the LOA. I do not want to finalize this document without first checking in with you.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com>

PAPA or Utility Permit at Ashton Dam

1 message

Carol Wasserman <carol@nehydropower.com> Thu, Sep 9, 2021 at 11:34 AM
To: "Diluglio, Vera (DOT)" <vera.diluglio@dot.ri.gov>

Hi, Vera. I just left you a VM with the following question: Does DOT suggest the use of a utility permit or a physical alteration permit for running the National Grid Interconnection on the agency's property? I think the utility permit is appropriate, but I wanted to confirm with you.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com>

FW: Meeting with New England Hydro for Ashton Dam P-14634

4 messages

John Baummer <John.Baummer@ferc.gov> Wed, May 27, 2020 at 1:49 PM
To: Carol Wasserman <carol@nehydropower.com>

Carol,

Here is the dial in information for the conference call next week to discuss New England Hydro's new proposals for the Ashton Dam Project including new turbines and the process plan and schedule for converting a license application to an application for an 10-MW or less exemption from licensing.

Let me know how many people will attend from NEHC.

Thanks!

John Baummer
FERC, Division of Hydropower Licensing
(202) 502-6837 (v)
john.baummer@ferc.gov

CISCO UNIFIED MEETINGPLACE EXPRESS

Subject: Aston Project

Date/Time: June 3, 2020, 09:55 AM (US: Eastern (EST/EDT))

Duration: 2 hrs

Frequency: Once

Password: Not required

Meeting type: Voice

Owner: John Baummer

Invitees: John Baummer

To join the meeting

Dial in from your phone:

From an Internal phone 6888

From within local Wash, DC area 202-502-6888

From outside Local Wash, DC area 1-877-857-1347

Meeting ID: 5310

First-time users should run the Browser Test to verify they can participate in a web meeting.

invite.ics
3K

Carol Wasserman <carol@nehydropower.com> Wed, May 27, 2020 at 2:00 PM
To: John Baummer <John.Baummer@ferc.gov>

Thanks so much for setting this up, John. I will forward the invitation. In addition to me NEHC will have 4 participants:

Michael Kerr, CEO
Jeff Mobed, Engineering Director
Glendon Barnes, Senior Regulatory Specialist
Patrick Wendt, Aquatic Biologist

I am going to forward, by the end of the week, a proposed process for discussion.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Wed, May 27, 2020 at 2:01 PM
To: Michael Kerr <michael@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>, Jeffrey Mobed <jeffrey@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Ashton License Application Call information.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

John Baummer <John.Baummer@ferc.gov> Wed, May 27, 2020 at 2:24 PM
To: Carol Wasserman <carol@nehydropower.com>

Thanks for the RSVP Carol!

From: Carol Wasserman <carol@nehydropower.com>
Sent: Wednesday, May 27, 2020 2:01 PM
To: John Baummer <John.Baummer@ferc.gov>
Subject: Re: FW: Meeting with New England Hydro for Ashton Dam P-14634

Thanks so much for setting this up, John. I will forward the invitation. In addition to me NEHC will have 4 participants:

[Quoted text hidden]
[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

Conference Call Presentation for the Ashton Dam Hydroelectric Project FERC No. P-14634

1 message

John Baummer <John.Baummer@ferc.gov> Tue, Jun 2, 2020 at 4:02 PM
To: Carol Wasserman <carol@nehydropower.com>, Cleo Deschamps <Cleo.Deschamps@ferc.gov>, Nicholas Tackett <Nicholas.Tackett@ferc.gov>, Sheila Ruffin <Sheila.Ruffin@ferc.gov>, "Mendik, Kevin R" <Kevin_Mendik@nps.gov>, "McGee, Patrick (DEM)" <patrick.mcgee@dem.ri.gov>, "Grader, Melissa" <melissa_grader@fws.gov>, "Horbert, Chuck (DEM)" <chuck.horbert@dem.ri.gov>, Jonathan Weitzner <jawsincjw@gmail.com>
Cc: Arash Jalali Barsari <Arash.JalaliBarsari@ferc.gov>, Taconya Goar <Taconya.Goar@ferc.gov>, Robert Haltner <Robert.Haltner@ferc.gov>

Good afternoon,

Attached is a presentation New England Hydropower Corporation prepared for the conference call tomorrow at 10:00 a.m. EST. The proposed agenda is as follows: (1) Introduction of participants; (2) NEHC presentation on purpose of meeting; (3) Discussion on NEHC's proposed changes and schedule; and (4) Meeting conclusion.

I also included the call-in information again below. If you have any problems accessing the call tomorrow please email me.

Thank you,

John Baummer
FERC, Division of Hydropower Licensing
(202) 502-6837 (v)
john.baummer@ferc.gov

CISCO UNIFIED MEETINGPLACE EXPRESS

Meeting

Subject: Ashton Project

Date/Time: June 3, 2020, 09:55 AM (US: Eastern (EST/EDT))

Duration: 2 hrs

Frequency: Once

Password: Not required

Meeting type: Voice

Owner: John Baummer

Invitees: John Baummer

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From outside Local Wash, DC area 1-877-857-1347

Meeting ID: 5310

First-time users should run the Browser Test to verify they can participate in a web meeting.

2020-06-02_FERC Presentation_Ashton Modifications.pptx
5456K

Carol Wasserman <carol@nehydropower.com>

University of Notre Dame South Bend Hydro, Indiana

13 messages

McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov> Fri, Feb 26, 2021 at 3:03 PM
To: "carol@nehydropower.com" <carol@nehydropower.com>

Good afternoon Ms. Wasserman, I understand that you called the U.S. Fish and Wildlife Service's Indiana Field Office in Bloomington to talk with someone about the hydro project on the St. Joseph River in South Bend and its impact on the river fisheries.

Although I am the FWS biologist working on the project, I have deferred all fisheries concerns to the Indiana Department of Natural Resources because I know very little about the possible fishery impact. I know that anadromous trout and salmon come up the St. Joseph River from Lake Michigan and pass through South Bend, utilizing a fish ladder that the FWS helped fund. But that project was 20 years ago or so and was done through the Sport Fish and Wildlife Program (Federal Aid) in our Regional Office in Minnesota, so no FWS staff in Indiana were directly involved.

You can discuss the fishery issue with IDNR staff. Please contact Matt Buffington, Environmental Supervisor, Division of Fish and Wildlife: mbuffington@dnr.IN.gov or 317-233-4666. Due to COVID, he may be working at home, so email is likely the best way to reach him.

Elizabeth McCloskey
U.S. Fish and Wildlife Service
Northern Indiana Suboffice
Ecological Services
Chesterton, Indiana
elizabeth_mccloskey@fws.gov

Carol Wasserman <carol@nehydropower.com> Fri, Feb 26, 2021 at 3:05 PM
To: "McCloskey, Elizabeth" <elizabeth_mccloskey@fws.gov>

Thank you so much for the information. I will contact IDNR.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 1, 2021 at 11:48 AM
To: mbuffington@dnr.in.gov

Good morning. I received your contact information from Liz McCloskey at USFWS. I am the regulatory director for the New England Hydropower Company, LLC, based in Massachusetts.

The reason I am contacting you is the Notre Dame Hydropower Project, specifically, the fish passage issues presented by the StreamDiver turbines. We are considering the use of the StreamDivers at two projects in New England, but we know very little about the impacts on anadromous fish and eels. Heretofore, we have employed Archimedes Screw Turbines, which are extremely fish friendly. The StreamDiver is entirely different. We really wish to develop the most effective system we can to protect fish.

I would be very grateful if you have some time to discuss your experience with these machines at the St. John River.

Thank you for your assistance.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Buffington, Matt <MBuffington@dnr.in.gov> Mon, Mar 1, 2021 at 12:00 PM
To: Carol Wasserman <carol@nehydropower.com>

Carol,

It's been a while since we talked the nuts and bolts of that project. I'll probably have to refresh my memory a bit before offering a lot of input. Perhaps the major feature included is the bypass designed for fish. The bypass should do a good job of preventing fish from encountering the turbines. We also already had a fish ladder at the site so that helps.

I'm guessing a phone call might be the best way to at least start the conversation. My calendar is not too crowded over the next few days if there is a day/time you want to talk. I'm working remotely so if you call my office, you have to leave a message.

Matt Buffington

Environmental Supervisor

Division of Fish and Wildlife

Indiana Department of Natural Resources

E: mbuffington@dnr.in.gov

P: 317-233-4666

www.in.gov/dnr/fishwild/

www.in.gov/dnr/

** Please let us know about the quality of our service by taking this brief* customer survey.

From: Carol Wasserman <carol@nehydropower.com>
Sent: Monday, March 01, 2021 11:49 AM
To: Buffington, Matt <MBuffington@dnr.IN.gov>
Subject: Fwd: University of Notre Dame South Bend Hydro, Indiana

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 1, 2021 at 12:04 PM
To: "Buffington, Matt" <MBuffington@dnr.in.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>

Matt:

Thanks so much for your prompt response. Any time tomorrow or Wednesday works for me. I would like to include our biologist on the call. If you can provide a convenient time and the bestway to communicate (phone, Zoom, Google Meet...) I will set it up.

We are really eager to discuss your experiences. We want to design this system correctly the first time.

Thanks again.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Buffington, Matt <MBuffington@dnr.in.gov> Mon, Mar 1, 2021 at 12:39 PM
To: Carol Wasserman <carol@nehydropower.com>
Cc: Patrick Wendt <Patrick@nehydropower.com>

I don't have anything scheduled either day. Anytime 10-2 should work. Phone, Zoom, Microsoft Teams, whatever. Not sure I've used Google Meet yet. As long as my State computer accepts it, that should work as well. I may see if another biologist can also participate. He may recall some details better than I.

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 1, 2021 at 12:48 PM
To: "Buffington, Matt" <MBuffington@dnr.in.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>

I will send out a Zoom invite for 10:00 tomorrow. Thank you again!

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 1, 2021 at 12:51 PM
To: "Buffington, Matt" <MBuffington@dnr.in.gov>

What time zone are you in?

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

Buffington, Matt <MBuffington@dnr.in.gov> Mon, Mar 1, 2021 at 1:01 PM
To: Carol Wasserman <carol@nehydropower.com>

Eastern.

Matt

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 1, 2021 at 1:02 PM
To: "Buffington, Matt" <MBuffington@dnr.in.gov>

Great. I just sent out a Zoom invitation for tomorrow from 10 -11.

My staff is really appreciative of your time and knowledge.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Buffington, Matt <MBuffington@dnr.in.gov> Mon, Mar 1, 2021 at 1:12 PM
To: Carol Wasserman <carol@nehydropower.com>

I'll do my best. I have a feeling we may need to have a second meeting because I suspect I won't have a ton of answers. Two other biologists have spent more time in the area than I but they aren't available. If you are hoping for one really productive meeting, we would have to push this a little later. Either is perfectly fine with me.

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 1, 2021 at 1:15 PM
To: "Buffington, Matt" <MBuffington@dnr.in.gov>

Let's go with this conversation initially. We can get a better idea of the areas you have worked with and the knowledge gaps we need to fill. I want to know as much as we can before we start consulting with our state agencies here, who have never seen a StreamDiver. Neither has our USFWS contact here, Melissa Grader. It was Melissa who led us to Liz who led us to you.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

[Quoted text hidden]

Buffington, Matt <MBuffington@dnr.in.gov> Mon, Mar 1, 2021 at 1:18 PM
To: Carol Wasserman <carol@nehydropower.com>

Sounds good.

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com>

South Bend Hydro info

3 messages

Buffington, Matt <MBuffington@dnr.in.gov> Tue, Mar 2, 2021 at 11:32 AM
To: Carol Wasserman <carol@nehydropower.com>

Carol,

Here is a very small amount of information that was deemed safe to send without creating any problems. I did reach out to Paul Kempf who is the Notre Dame contact for this project. He offered himself as another resource if you are interested. He is very attuned to what is going on these days at the site, and while he was the applicant, I expect he will offer a fairly broad point of view on the project. Between Paul and KFI, they can probably provide some good information.

Attached are two pages from a much larger document that had a lot of specs that probably push the limits in terms of public disclosure. Paul has all the info as well and he may be willing to share more than this. He did say some of the details changed since these drawings but nothing that really changes the general concept shown.

We did issue a DNR floodway permit for this project and I attached it as well.

Paul's contact info:

Paul A. Kempf, P.E.
ASSISTANT VICE PRESIDENT OF UTILITIES & MAINTENANCE
UNIVERSITY OF NOTRE DAME
www.utilities.nd.edu

574-631-6594 (main)
574-631-0142 (direct)
574-631-8468 (fax)

100 Facilities Building
Notre Dame, IN 46556

Hope this helps.

Matt Buffington

Environmental Supervisor

Office of Private Lands

Division of Fish and Wildlife

Indiana Department of Natural Resources

402 W Washington St, Rm. W273

Indianapolis, IN 46204

E: mbuffington@dnr.in.gov

P: 317-233-4666

www.in.gov/dnr/fishwild/

www.in.gov/dnr/

** Please let us know about the quality of our service by taking this brief* customer survey.

2 attachments

sample pages.pdf
679K

FW29096 permit.pdf
69K

Carol Wasserman <carol@nehydropower.com> Tue, Mar 2, 2021 at 11:37 AM
To: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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www.NEHydropower.com

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"To Every Thing There is a Season..."

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2 attachments

sample pages.pdf
679K

FW29096 permit.pdf
69K

Carol Wasserman <carol@nehydropower.com> Tue, Mar 2, 2021 at 11:43 AM
To: "Buffington, Matt" <MBuffington@dnr.in.gov>
Cc: Patrick Wendt <Patrick@nehydropower.com>, Glendon Barnes <glendon@nehydropower.com>

Matt:

Thank you so much for your time and for this information. We have been trying so hard to come up with this type of fundamental information for some time. This is very helpful.

We will also reach out to Paul Kempf.

Many thanks!

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

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"To Every Thing There is a Season..."

[Quoted text hidden]

13 April 2021

Via email: christopher.boelke@noaa.gov

Christopher Boelke
Chief, New England Branch
Greater Atlantic Regional Fisheries Office
55 Great Republic Drive
NOAA Fisheries Service
Gloucester, MA, 01930

Dear Mr. Boelke:

New England Hydropower Company, LLC (NEHC) wishes to inform you of the design changes to the proposed small-scale Ashton Dam Hydroelectric project (the Project) to be located on the Blackstone River at the Ashton Dam, Cumberland and Lincoln, Rhode Island. NEHC respectfully requests your input on the Project as redesigned, with regards to fish. If you choose not to comment, please inform us in writing.

Due to concerns expressed earlier by Rhode Island Department of Environmental Management (RI DEM) regarding flood impacts, as well as access and construction space constraints, the Project has been redesigned. The previous design of the proposed Project included the dredging of a filled, former power canal to install three Archimedes Screw Turbines (ASTs) at a parcel approximately 1000 feet north of the George Washington Highway (Route 116) on the eastern side of the River in Cumberland. The three ASTs would have been topped with a powerhouse containing the generator units and associated electrics. A separate transformer, located on a pad, would have been located outside the powerhouse and an aboveground electrical interconnection line on several new power poles would have connected the power to the existing grid.

The current design is for the installation of four StreamDiver unregulated, fully submersible Kaplan-style turbines that will be located in the River beneath the surface of the water. The upland portion of the site will no longer be excavated for use. Instead, the existing lower-level spillway of the Ashton Dam will be reconstructed to house the new turbines. A drop gate to replace the gating structure washed out in the 2010 flood will be reconstructed along the lower-level spillway's crest to allow for the appropriate flow through the submerged turbines and return a veil flow of water to the main dam crest. This new design will have a direct effect on the Ashton Dam, but very little effect on the upland and riverbank near the Dam.

Table 1: Comparison of Previous and Currently Proposed Design Details

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Steel Archimedes Screw Turbine (3)	Length: 20.4 ft Diameter: 13.5 ft	StreamDiver submerged Kaplan turbines (4)	Length: 13.39 ft (3 large units) 10.61 ft (1 small unit) Diameter: 7.73 ft (3 large units) 5.98 ft (1 small unit)

Previous Structure	Previous Design Dimensions	**Currently Proposed Structure**	**Proposed Design Dimensions**
Concrete Penstock	Number: 3 Length: 30 ft Width: 15 ft Depth: 12 ft	Concrete Penstock	Number: 2 Length: 43.85 ft Width: 22.15 ft Depth: 19.2 ft
Concrete Tailrace	Number: 3 Length: 120 ft Width: 42 ft	Concrete Tailrace	Number: 1 Length: 11.5 ft Width: 44.3 ft
Steel Trash Rack	Number: 3 Height: 12 ft Width: 15 ft Spacing: 9 in	Steel Trash Rack	Number: 2 Length: Approx. 41ft Width: Approx. 19.8 ft Spacing: 12-14mm
Steel Sluice Gate at Penstock Intake	Number: 3 Area (each): 120 sq ft Height: 8 ft Width: 15 ft	No Steel Sluice Gate at Penstock Intake	N/A
One-story Powerhouse	Height: 18 ft Length: 53 ft Width: 24 ft	One-story Powerhouse	Height: 8 ft Length: 20 ft Width: 8 ft
Safety Fencing around Above-ground Structures	TBD	Safety Fencing around Above-ground Structures	TBD
Single Overhead Transmission Line	800 feet	Single Underground Transmission Line	Approx. 950 ft
Pad-mounted Transformer	1	Pad-mounted Transformer	1

The StreamDiver turbines are small, low impact hydropower turbines which operate in a run-of-river manner, whereby inflow approximates outflow at all times. The turbines will be housed in a concrete trench to minimize sediment transport. Visually, very little will be seen above the surface of the water.

Downstream fish passage protection measures will include exclusionary trash racks with bar spacing at approximately 12-14mm. Recognizing narrow bar spacing is not a sufficient protection measure, the main focus of excluding fish will be designing the angle of the trash rack to allow a specific flow ratio to encourage fish to pass over the turbines. The precise flow amount and design of the trash racks is still being determined but will allow for a through velocity of approximately 0.5m/s to keep fish moving. In addition, two notches (approximately 2-3 feet wide and 1.5-2 feet deep) will be designed into the drop gate to allow fish to pass over the turbines. Flow through the notches should be around 40cfs, but could be increased slightly if this proves to be insufficient[1]. Either of the notches can be closed off if there is low river flow, but one of the notches will always be left open, for downstream passage. Below the notches, the concrete structure will be sloped and will remain wetted to allow fish a gentle and safe

[1] There currently is no flow control at the Ashton dam, the sluice gates having been destroyed in the March 2010 storm. NEHC intends to perform a flow study to confirm appropriate flow levels following construction of new flow controls.

return to the river. Upstream fish passage will also be designed, but not constructed, as part of the Project. Eel passage will be designed and constructed as part of the Project.

As the Project is being designed to pass River flows in a run-of-river manner, backflooding should not be an issue. The drop gate to be constructed atop the lower-level spillway will be adjustable and will lay flat to pass flood flows, effectively replicating the conditions that currently exist. With the drop gate in a raised position, a small veil flow of 100cfs is planned to pass over the main spillway, which is no different than conditions would be in moderate flows. Recent inundation mapping by the engineers at Kleinschmidt Associates raised no concerns about the construction of the Project, as designed, altering the existing potential for flooding at the Project site, stating the Inflow Design Flood (IDF) is recommended to be the 100-year flow. And the spillway has the capacity to pass the IDF without overtopping any of the abutment structures.

Figures are attached to show the project location and approximate size compared to the previous design containing the ASTs. In addition, illustrations of what will be visible above the water's surface are shown in several computer-generated images.

Please contact the undersigned if you have any questions. Additional information about the Project (Docket No. P-14634-000) can be found on the FERC web site at www.ferc.gov.

Thank you.

Carol Wasserman

Carol Wasserman
Principal – Regulatory and Environmental Affairs
New England Hydropower Company, LLC
carol@nehydropower.com

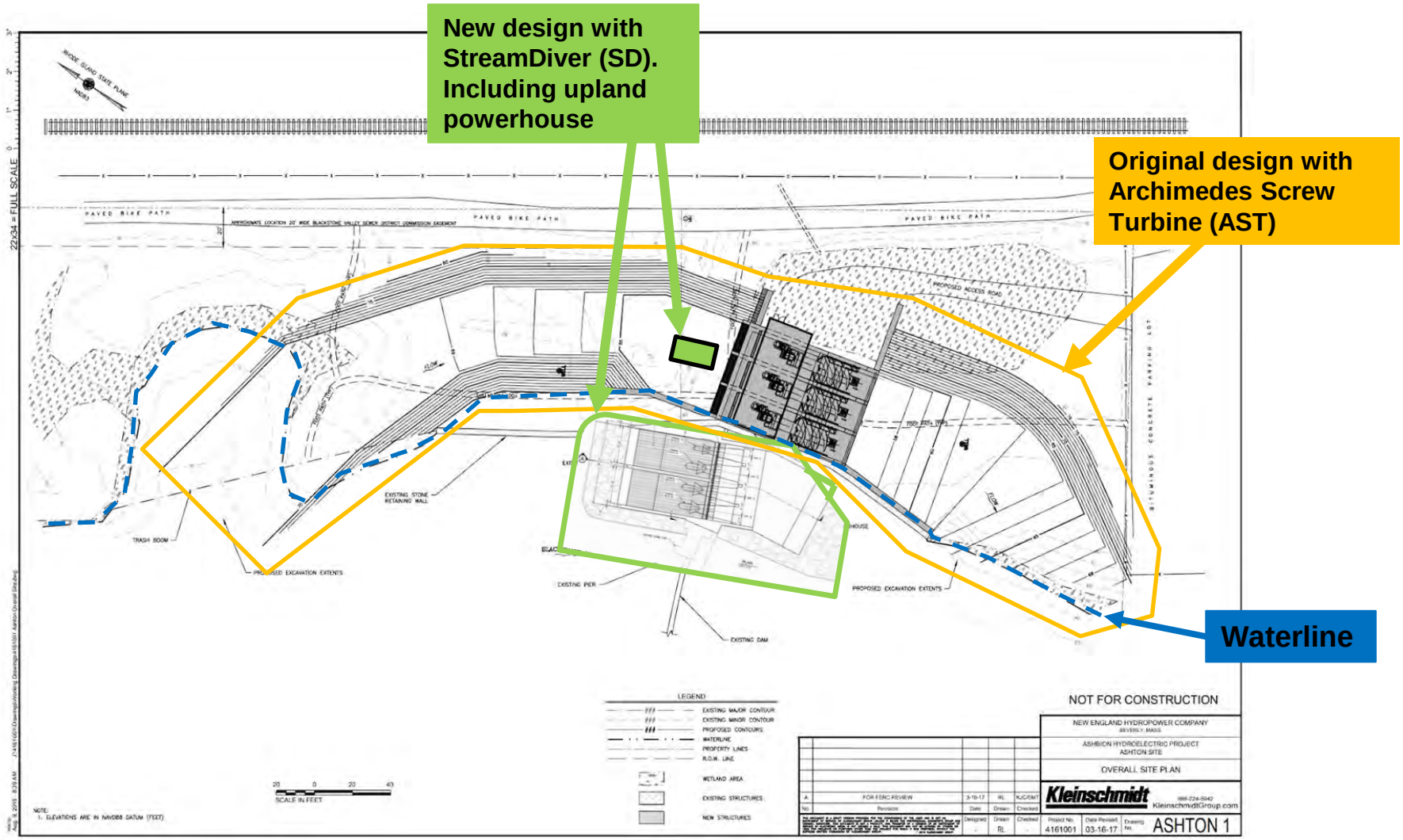
encl.: figures

Ashton Dam, Cumberland, RI
FERC No.P-14634

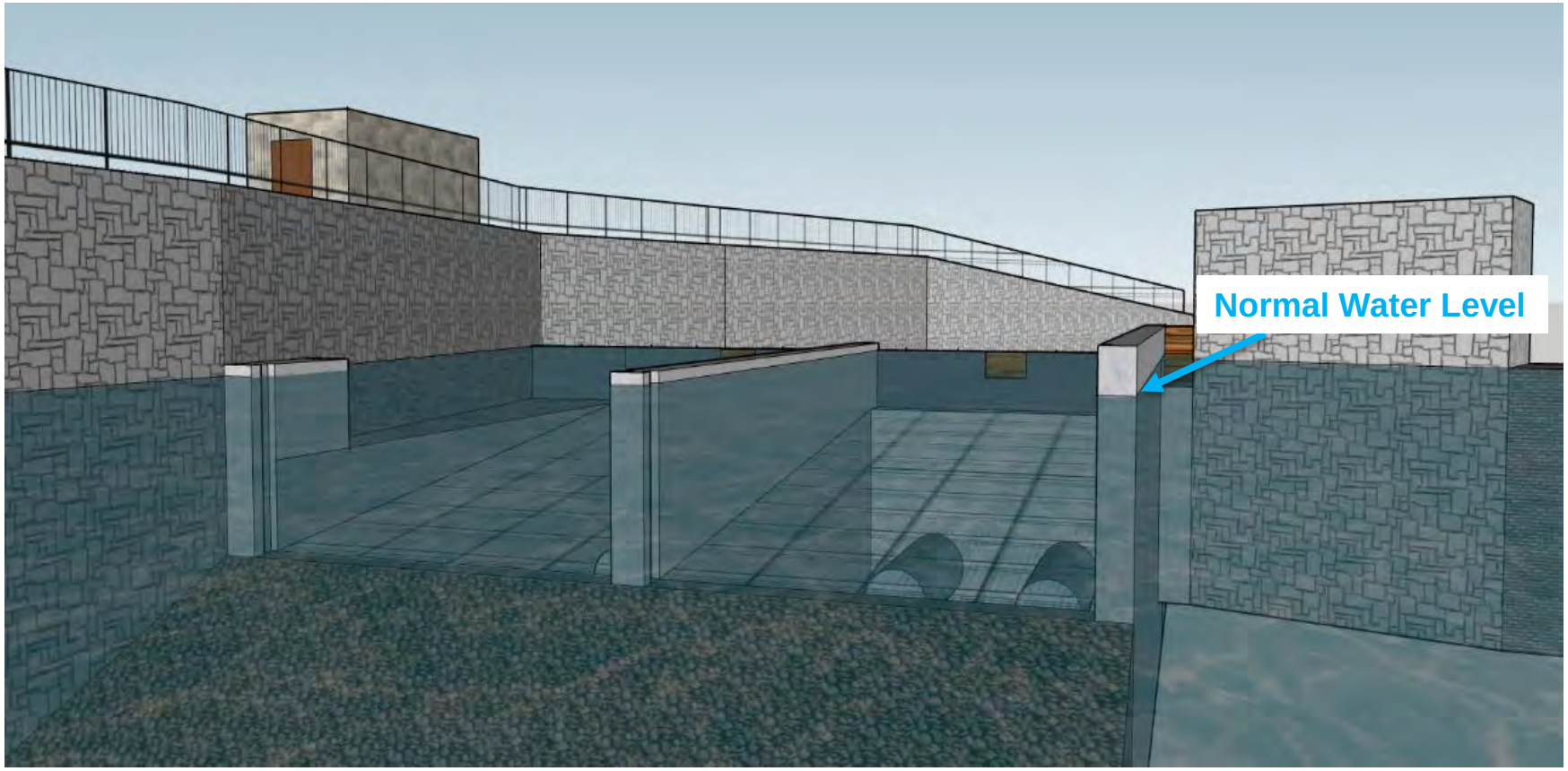
Ashton Dam, Cumberland, RI
FERC No.P-14634

Project installation location

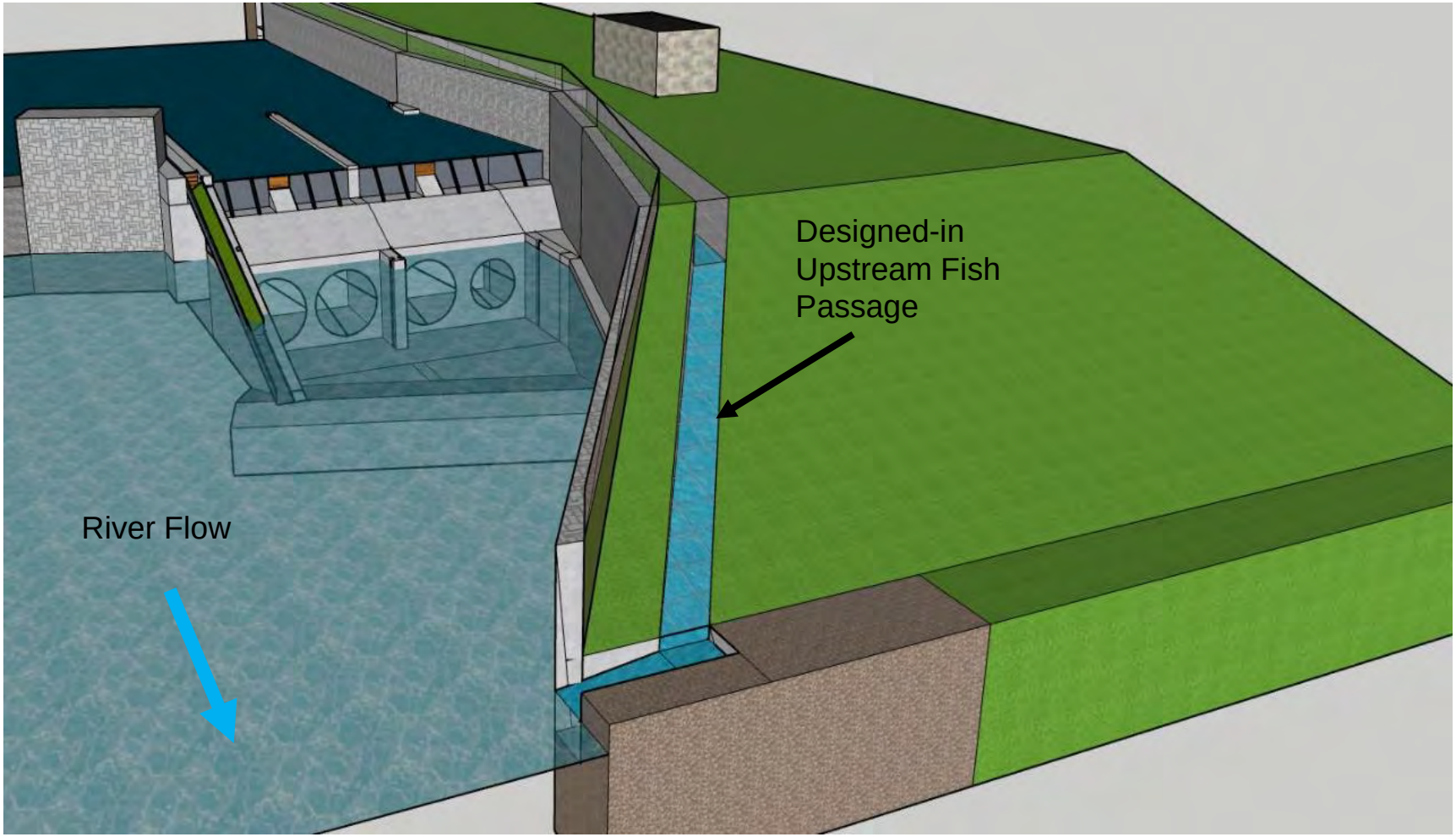
AST/SD Project Footprint Comparison



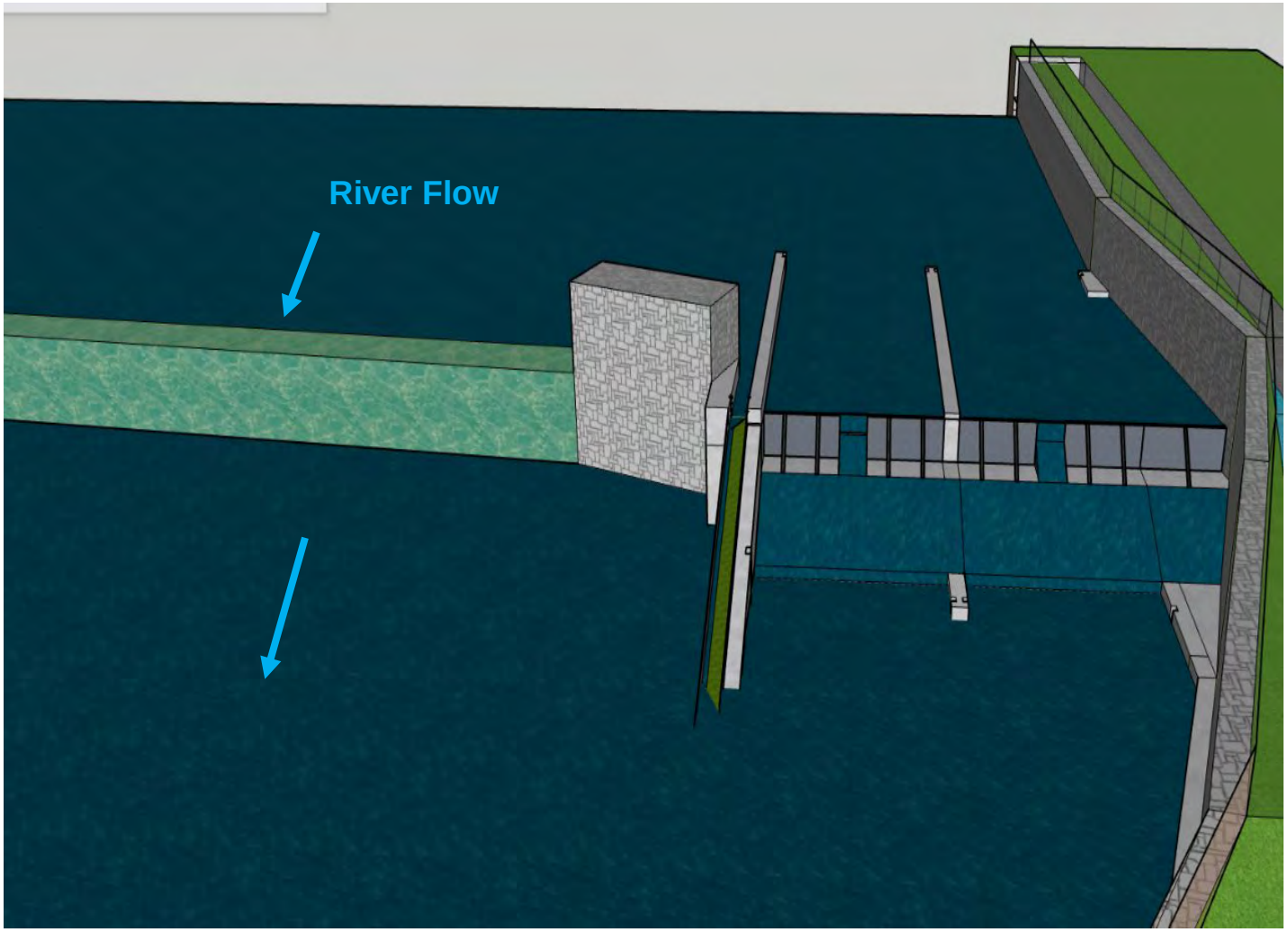
Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



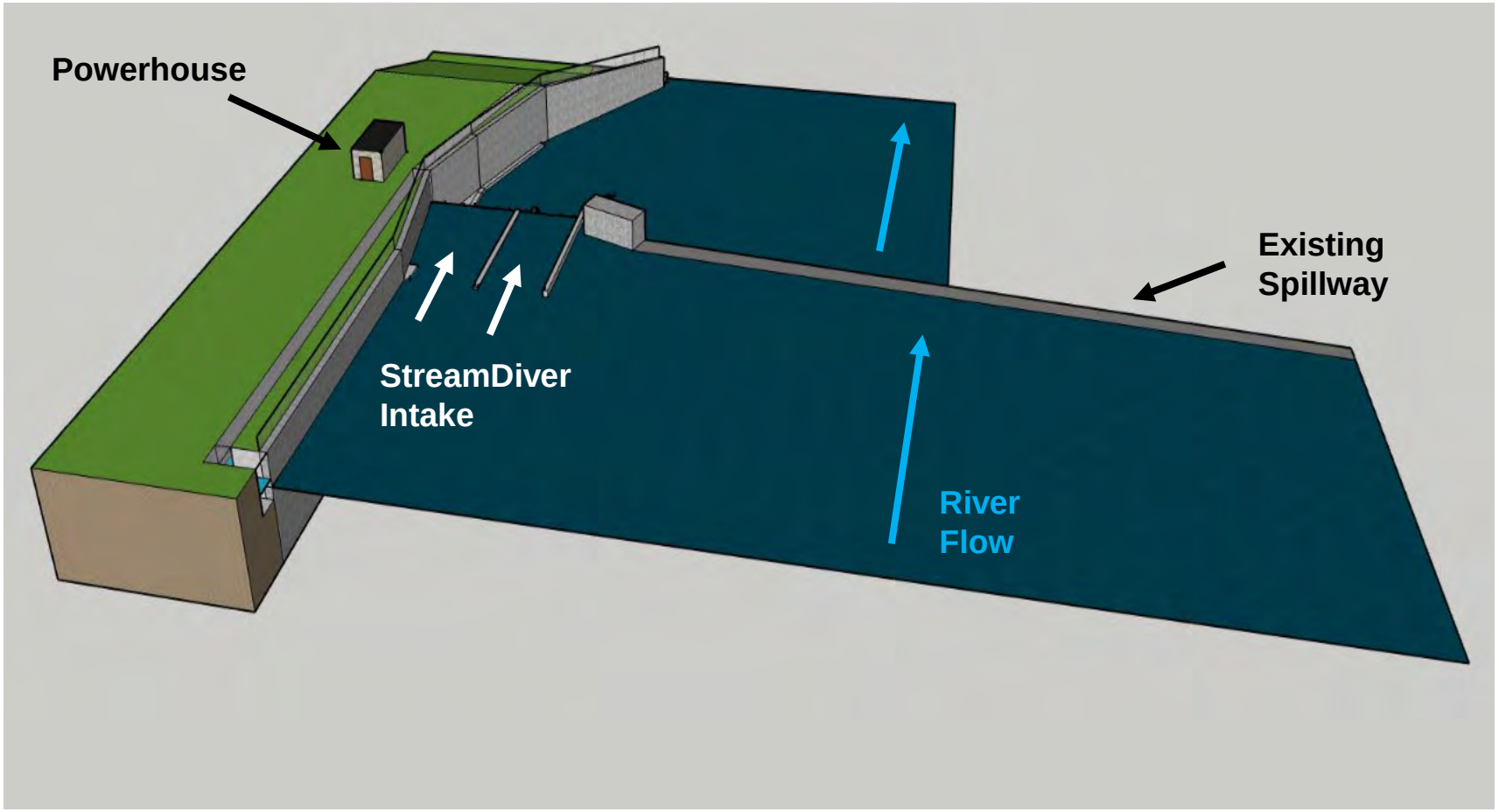
Computer Generated Model of StreamDiver Turbines beneath the River's Surface (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Upstream (for illustrative purposes only- not to scale)



Computer Generated Model of Completed Project Looking Downstream (for illustrative purposes only- not to scale)



Carol Wasserman <carol@nehydropower.com>

RE: StreamDiver Unregulated Kaplans

4 messages

Robert M. Ballantine, Jr. <Robert.Ballantine@ferc.gov> Mon, Mar 8, 2021 at 11:12 AM
To: Carol Wasserman <carol@nehydropower.com>

Good Morning Carol,

It appears the we approved the use of the StreamDiver turbines at the South Bend Project (P-7569). Also, at the Evelyn Project (P-14799) the licensee requested to use the turbines, but it's not clear to me if that request is still under our review or if we have approved their change in the license application. You may want to look through eLibrary to see where that stands. Since the Ashton Project application is under our review, I cant really discuss details regarding your application under our ex parte rule. I would suggest doing some research in eLibrary on the two projects mentioned above to see if that provides the answers you are looking for.

Thanks,

Robert Ballantine

Fisheries Biologist

Federal Energy Regulatory Commission

Office of Energy Projects

Division of Hydropower

Administration and Compliance

(202) 502-6289

robert.ballantine@ferc.gov

From: Carol Wasserman <carol@nehydropower.com>
Sent: Wednesday, March 03, 2021 3:22 PM
To: Robert M. Ballantine, Jr. <Robert.Ballantine@ferc.gov>
Subject: Re: StreamDiver Unregulated Kaplans

That would be great, thank you.

Carol Wasserman

Principal - Regulatory and Environmental Affairs

carol@NEHydropower.com
www.NEHydropower.com

+1 (339) 293-3157

"To Every Thing There is a Season..."

On Wed, Mar 3, 2021 at 2:57 PM Robert M. Ballantine, Jr. <Robert.Ballantine@ferc.gov> wrote:

> I'm not sure of that however, I will reach out to our licensing folks and see if anyone has any insight. Might take a few days for people to respond, I'll give them until mid next week and get back to you.
>
> **Robert Ballantine**
>
> *Fisheries Biologist*
>
> *Federal Energy Regulatory Commission*
>
> *Office of Energy Projects*
>
> *Division of Hydropower*
>
> *Administration and Compliance*
>
> (202) 502-6289
>
> robert.ballantine@ferc.gov
>
> **From:** Carol Wasserman <carol@nehydropower.com>
> **Sent:** Tuesday, March 02, 2021 12:05 PM
> **To:** Robert M. Ballantine, Jr. <Robert.Ballantine@ferc.gov>
> **Cc:** Patrick Wendt <Patrick@nehydropower.com>; Glendon Barnes <glendon@nehydropower.com>
> **Subject:** StreamDiver Unregulated Kaplans
>
> Good morning, Robert. You organized the FERC conference call with our staff on the Albion Dam Exemption, P-14633, which everyone greatly appreciated. I am contacting you now because you manage aquatic resources for DHAC.
>
> We are developing another low-head facility about 1.4 miles downstream of the Albion Dam, at the Ashton low-head dam on the Blackstone River in Cumberland, RI. We are using the Voith StreamDiver Turbine, a completely submersible unregulated Kaplan.
>
> This turbine is not well known here. In fact, the only major project using StreamDivers currently is in South Bend, Indiana. We are trying to evaluate the best forms of exclusion methods for fish passage using this turbine, but the paucity of impact information is challenging. We have spoken with the Indiana Field Office of the USFS and the Indiana Dept. of Natural Resources about their experience, but their information is also limited.
>
> Is there anyone in the Aquatic Resources or Environmental and Project Review groups with some experience or knowledge about the Voith StreamDiver and exclusion technologies? I would appreciate any guidance you could provide.
>
> Thank you.
>
> Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

Carol Wasserman <carol@nehydropower.com> Mon, Mar 8, 2021 at 11:31 AM
To: "Robert M. Ballantine, Jr." <Robert.Ballantine@ferc.gov>
Cc: Glendon Barnes <glendon@nehydropower.com>, Patrick Wendt <Patrick@nehydropower.com>

Thanks, Rob. We have been in contact with Paul Kempf, the PM for the Notre Dame Project. We have also contacted the USFWS in Indiana as well as the Indiana Department of Natural Resources. Unfortunately, there is very little information available to date about operational impacts of the StreamDivers on fish passage. We will check the Evelyn Project, but the experience in this country is limited.

Thank you for looking.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

[Quoted text hidden]

Robert M. Ballantine, Jr. <Robert.Ballantine@ferc.gov> Mon, Mar 8, 2021 at 11:37 AM
To: Carol Wasserman <carol@nehydropower.com>

Yeah, I agree it's limited. It looks like standard fish screening methods are suggested on their website.

[Quoted text hidden]

Carol Wasserman <carol@nehydropower.com> Mon, Mar 8, 2021 at 11:40 AM
To: "Robert M. Ballantine, Jr." <Robert.Ballantine@ferc.gov>

Yes, we have been working with Voith on this, but they only have bench level studies. We will keep at it.

Carol

Carol Wasserman

Principal - Regulatory and Environmental Affairs

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"To Every Thing There is a Season..."

[Quoted text hidden]

ORIGINAL

David J. Newton
24 Lonesome Pine Road
Cumberland, RI 02864

December 20, 2021

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Ashton Dam Hydroelectric Project (P-14634-003); Comments to Proposed Siting

Dear Ms. Bose:

I write to you as a long-time resident of the Town of Cumberland, and an advocate for the cleanup and restoration of the Blackstone River for over 40 years. My comments are my own and independently derived.

The Ashton Dam Hydroelectric Project Site is co-located within a National and State recognized heritage site well known as the Blackstone River Valley National Heritage Corridor (National Heritage Site), and more succinctly connected with the Blackstone River Valley National Historical Park (State Park). The Ashton Dam itself is noteworthy as it is part of the Ashton National Register Historic District accepted on the National Register of Historic Places in 1982. The dam aligns with, and sheds water to, the only remaining fully intact portion of the Blackstone River Historic Canal (circa 1828 to 1848) on the lower segment of, and immediately paralleling to, the Blackstone River in Lincoln Rhode Island.

I bring to your attention two issues which I believe are directly correlated with, and impactful to, your decision to allow the permit and licensing of this hydro-facility at Ashton Dam:

1. Maintain adequate water flow to the historic canal to improve water flow and quality and protect the eco-system and heritage of the canal regardless of river stage and operational status of the hydro-facility.
2. Complete a final design and construct of an approved fish passage to be operated and maintained as a part of this new licensing agreement.

With respect to issue #1, I respectfully request that the Ashton Hydro-design engineer incorporate an assessment of the surface water budget and maintained inflow needs for the Lincoln-side of Ashton Dam to ensure adequate replenishment of water into the historic canal. The "Blackstone River Watershed Needs Assessment Project Report Final Draft—July 27, 2021" with funding from EPA's Southeast New England Program, and commitments from the Narragansett Bay Estuary Program's "Blackstone River Watershed Needs Assessment Project" calls out specific actions targeting the Blackstone Canal and other flow-challenged locations for restorative solutions. Existing supply/flow-degraded areas such as with the head of this canal at the Ashton Dam needs to meet designated uses within the canal, and planned flow alterations and their impacts such as with this project are not well understood nor studied at this location. While this project is designated as a "run of river" hydro-facility, the assessment should identify current and potential flow-degraded impediments to the canal's water budget derived at the opposite side of the dam, evaluate water flow alterations that may be impactful,

and provide alternatives that comply with regulatory requirements and best meet needs. This may require engineering alterations at the inflow site of the canal on the Lincoln side of the Ashton Dam as it may relate to flow also passing through the hydro-facility. A water flow balance into the canal must be considered, implemented, and maintained throughout the year so as to support aquatic life support within the canal.

As to my second issue (#2), I am rather appalled at the lack of progress in addressing fish passage for the lower Blackstone over the past 3 decades. Once again the "Blackstone River Watershed Needs Assessment Project Report Final Draft calls out some specificity for achieving fish passage on the four dams on the lower main stem of the Blackstone River. The report states: "Thoughtful scientific and community-based efforts have been underway *for decades*[emphasis placed here] to realize fish passage past these dams (termed "Phase 1") and access to over 200 acres of habitat, while maintaining existing hydrological operations and heritage needs at the dam sites (USDA, 2008; NBEP, 2002). *Project complexity and cost has so far stymied this work*[again, emphasis added]. A careful balance between environmental, economic, community, heritage, and cultural interests must be reached for this project to succeed. In summer 2021, RIDEM and NBEP have initiated a new effort to reconvene key interests to explore means to achieve fish passage. Attaining passage would be a seminal and signature accomplishment for Blackstone advocates, the state, and the region". As to the near-term outlook, the assessment reads: "With the new commitment from RIDEM and long-standing interests' willingness to reengage, new federal funding sources and the strength of Rhode Island Congressional Delegation, and the ground-breaking nature of this action, makes the time right to set the stage for future fish passage installation." Lastly, let me also state that with the Pratt Dam having an unrestrained, open flow raceway, the Ashton Dam is the very next dam upriver to impede fish passage. With this abridged opening argument as a backdrop, let me proceed with my comment.

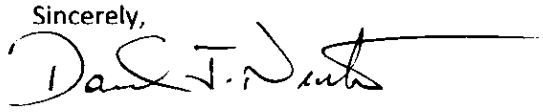
In my read of the subject application for Ashton Dam, I am disappointed to find that FERC and the Applicant are not moving forward with a full commitment for anadromous fish passage excepting that the USFW has recently demanded eel passage that will now be included in the build. However, once again there is a stalemate and perhaps an inherent appearance of weakness from FERC to force an actual buildout of a fish passage for anadromous species here on the Lower Backstone River. At the present time the Application only acknowledges that fish passage can be part of the design for the future potential implementation if and when downstream operators are required to install fish passage.

First and foremost, under its NEPA analysis, FERC is obligated to evaluate for inclusion "fishway prescriptions" in any license issued by FERC. (see: https://www.govinfo.gov/content/pkg/FR-2000-12-22/pdf/00-32723.pdf for additional background). Secondly, the administrative record holds considerable proof that fish migration is expected to occur and will likely be highly successful in the Blackstone once the first four dams come into compliance. Third, considerable public funds have been spent, actions have been taken and/or underway, and wholistic progress has been accomplished in the restoration of the Lower Blackstone. Lastly, the NEPA analysis should not allow for an argument that downstream dam owners/operators must first come into compliance before it can obligate an upstream owner/operator to comply with the implementation of fishway prescriptions. These are held by FERC as separate and distinct owner/operator license obligations. If it were to come to be that this argument is to be upheld, then FERC must hold these obligations as "joint and several" (each individual having responsibility for the whole) in that the environmental quality and ecology of the river as a whole is being impacted by each and every owner/operator not complying with fishway prescriptions, or rather, unimpeded fish passage as an outcome, because the record illustrates that fish migration is expected were it not that

these dams are causing impediments. Moreover, by requiring only a conceptual or baseline (untested) design that may be potentially implemented after the hydro-facility is constructed and operating preempts the ability to test and engineer for the efficacy of fish passage as it relates to the controlling system(s) operations as a whole facility. Lastly, the Applicant places much emphasis on public visitation and teaching elements that the facility can provide. By having both eel and anadromous fish passage in place, the public awareness and acceptance of run of river hydro operations on the Lower Blackstone will be much improved. I therefore respectfully request that FERC require the approved design and installation of eel and fish passage as part of the permit and licensing obligations.

Thank you for your attention and consideration in this matter.

Sincerely,



David J. Newton

Cc: John Marsland, President, Blackstone River Watershed Council/Friends of the Blackstone

ORIGINAL

FILED
SECRETARY OF THE
COMMISSION

2022 JAN -6 P 1:55

FEDERAL ENERGY
REGULATORY COMMISSION

December 22, 2021

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Ashton Dam Hydroelectric Project (P-14634-003)

Dear Secretary Bose:

I write on behalf of Blackstone River Valley National Heritage Corridor (BHC) with multiple requests for studies concerning impacts the proposed Ashton Dam hydroelectric project may have on historic, natural, and recreational resources within the Federally designated area that encompasses Ashton Dam and both sides of the Blackstone River. Despite informing the applicant, New England Hydropower Company, LLC, through the Rhode Island Department of Environmental Management, that the revised Ashton Dam Hydroelectric Project would occur on a dam within the boundary of Blackstone River Valley National Heritage Corridor and the Blackstone River Valley Historical Park and abutting property held in easement by the National Park Service (NPS), we received no direct notification of this application being filed with FERC. As far as we can determine, no Federal entity has timely communicated with BHC. This is in violation of the requirements of P.L. 99-647.

Specifically, we refer to a section of P.L. 99-647 DUTIES OF OTHER FEDERAL ENTITIES SEC. 9. Any Federal entity conducting or supporting activities directly affecting the Corridor shall— (1) consult with the Secretary and the Commission with respect to such activities; (2) cooperate with the Secretary and the Commission in carrying out their duties under this Act and, to the maximum extent practicable, coordinate such activities with the carrying out of such duties; and (3) to the maximum extent practicable, conduct or support such activities in a manner which the Commission determines will not have an adverse effect on the Corridor.

So, for the record regarding the proposed Ashton Dam hydroelectric project, our legal standing now and for future matters of consultation by applicants regarding hydroelectric generation using Ashton Dam, and our requests for studies related to P-14634-003: as part of BHCs Congressional mandate, Article 4 provides the mandate to evaluate any "land use management which consider and detail the application of appropriate land and water management techniques, including but not limited to local zoning, use of easements and development of intergovernmental cooperative agreements, so as to protect the Corridor's historical, cultural. scenic and natural resources and enhance water

quality of the Blackstone River in a manner consistent with supporting economic revitalization efforts."

The Blackstone River Bikeway, an important National Heritage Corridor recreation resource, runs along the Cumberland, RI side of Ashton Dam proposed for the location of the hydroelectric generation turbines. We request a study on the nature and level of impacts to the infrastructure and public use of the bikeway during and after construction of the proposed project.

the Ashton Dam is a structure of recognized historic importance and historic integrity within the Ashton National Register Historic District and is a Fundamental Resource of the Blackstone River National Heritage Corridor. There are alterations to this historic dam proposed as part of the hydroelectric project. We request a Historic Structure Report of the historic development and current historic fabric of the Ashton Dam to determine the nature and level of Adverse Effect proposed by the loss of historic materials and, therefore, the historic character of the dam and the Ashton National Register Historic District.

It will be necessary to raise the water level in the river to operate the hydroelectric generation turbines; this is cited in RI DEM's October 6, 2021 letter of comments on the proposal. We request a study of the impacts of increased water levels and pressures, both during normal and high/storm water flows, on the already precarious historic fabric and integrity of the Blackstone Canal within the Blackstone River State Park and upper Blackstone Canal National Register Historic District. This study, like that for Ashton Dam, will assist with the Section 106 review of the project under the National Historic Preservation Act of 1966, as amended.

Given the alarming level of erosion already occurring on both river banks below Ashton Dam and the eroding strip of land between the Blackstone River and the historic Blackstone Canal immediately below Ashton Dam that is negatively impacting paddling recreation infrastructure in place for portage around the dam through the canal, we request a study on the likely impacts to river bank erosion and water recreation infrastructure on the Cumberland and Lincoln sides of the Blackstone River caused by the proposed hydroelectric project.

I thank you in advance for your kind consideration of our requests for these four studies. I would be happy to provide additional information regarding the concerns of Blackstone River Valley Heritage Corridor over potential negative impacts to historic, natural, and recreational resources by the Ashton Dam Hydroelectric Project within the boundaries of the Corridor that we seek to better understand and address via the requested studies.

Sincerely,

Devon R. Kurtz
Executive Director

BLACKSTONE RIVER
WATERSHED COUNCIL

December 26, 2021

Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

RE: Ashton Dam Hydroelectric Project (P-14634-003); Comments to Proposed Siting

Dear Secretary Bose:

The Blackstone River Watershed Council/Friends of the Blackstone (BRWC/FOB) is a 501c3 Corporation whose mission is to restore, enhance, and preserve the physical, historical, and cultural integrity of the Blackstone River, its watershed and its eco-system, through public advocacy, education, recreation, stewardship and the promotion of our unique Blackstone Valley resource. BRWC/FOB has been designated under the General Laws of Rhode Island, Section 42-28-8,to advocate on behalf of the Blackstone River. As such, BRWC/FOB submits these comments.

On November 28, 2018 the BRWC/FOB voted to support a variance change in the Town of Cumberland for NEH. At the December 2018 Town Council meeting Carol Wasserman, regulatory director at NEH stated that the company received glowing reviews from the planning board and the BRWC. However, BRWC believes that no Federal permits can be issued unless the constructed facility fits the historic character of the river. BRWC sees the historic character of the river as a fish run before the dams were constructed that impeded fish migration. With their initial design, NEH presented to the community a power generation method that provided up and down fish passage. With the newly proposed alternative design, the Stream Divers do not allow fish passage unless passage is added to the design. At the present time, the only obligation in the new design is a conceptual design and agreement to construct only if downstream operators were to comply with fish passage at some future date. This change is not acceptable to BRWC.

Taken from a review of NEHC's "New England Hydropower Company, LLC submits Volume 2 of the License Application for Ashton Dam Hydroelectric Project under P-14634" Application/Petition/Request | License/Relicense Application 11/02/21, the accompanying Project Map indicates a parcel of an unknown owner south of the dam on the Cumberland side of the river. There appears to be a discrepancy either by parcel size or by description whereby the RIDOT property holdings southern boundary does not conform to the north boundary of the J&W Reality Holdings, LLC property. The proposed location of the fish ladder is seen as a trench that appears to encroach onto said unknown owner parcel following parallel along the eastern riverbank edge. In the inset of the Project Map, #3 reads: "Proposed easement chosen to provide enough space for potential future upstream fish passage, the control building, bioretention basin, and access to the Stream Diver units while staying on RIDOT land." We believe this statement misinforms the reviewers and the general public in that it appears from

this submitted Project Map that access for the proposed fish passage construction, future maintenance, and control of the fish passage trench in the downstream (south of dam) connection to river is not known to be held by RIDOT, nor J&W Holdings. Construction easement and future maintenance access may not be able to be legally obtained for the promised fish passage as depicted. Moreover, Operator land easement and access documentation also found in the public file confirms this parcel as a major issue for legally binding construction easements and was likely the very reason why the Operator submitted a major change in design from the "Archimedes Screw" (which was initially touted as a fish passage friendly structure-therefore no need for constructed fish passage) to the newly submitted "Stream Divers" approach. This new approach places new infrastructure operations directly into the riverway rather than in a side cut trench on the Cumberland side of River as previously designed avoiding this very same land acquisition issue. Therefore, while it may be inconsequential for the Operator to submit a conceptual "design" for a future potential fish passage connected with this hydro project, actual implementation may be thwarted due to unattainable access rights (agreements and controls not held by the Operator). BRWCFOB therefore demands a full and detailed written explanation documenting this apparent construction easement issue as it is directly related to the construction, operation, and maintenance of fish passage at this hydro-facility and all actions to be undertaken by the Operator to resolve this land acquisition issue before FERC approval and licensing can be obtained.

BRWCFOB wishes to convey to FERC and to the Operator that the concept of fish passage prescriptions (as a requirement for compliance for newly constructed hydro-facilities) is not solely tied to whole river reach anadromous fish passage obligations, but it is also a necessary component for the mobility and viability of local freshwater fish species to also pass unabated as an important step forward for the full restoration of the Blackstone River eco-system. As such, there should be no arguable linkage for whether (or not) fish passage will be constructed in the Lower Blackstone dams, but for the fact that fish passage is a requirement for the construction and operation at this Facility regardless of the outcomes at the lower dam sites. The BRWCFOB calls upon FERC to fully obligate the Operator to address and install fish passage as a component of the final design, whole construction, and immediate operation of the Facility.

Lastly, The BRWC/FOB working in partnership with the Blackstone River Valley National Historical Park supports their call for a Historic Structure Report. The impact of increased water levels and pressures on the Historic Blackstone Canal and Blackstone River State Park, and the impact on the recreational resources of the Blackstone River and Blackstone River Bikeway.

Respectfully Submitted,

John Marsland

John Marsland, President
BRWC/FOB

Stefanie Covino, Worcester, MA.
Dear Secretary Bose,

The Blackstone Watershed Collaborative is a network of over 100 nonprofits, universities, businesses, and others who understand that a healthy watershed is vital to support the ecology, economy, and culture of the region. Our goal is to improve the health and resilience of our Blackstone Watershed communities and help meet the increasing challenges to water quality such as urban growth and climate change impacts. This letter is to support the previously provided comments of our partners at the Blackstone River Watershed Council/Friends of the Blackstone (BRWA/FOB) regarding the Ashton Dam Hydroelectric Project.

As BRWA/FOB noted, fish passage is a critical missing element of this proposal. The previous iteration of the project allowed for passage through use of an Archimedes Screw. However, this proposal reflects the use of "Stream Divers" approach without fish passage. There is only a requirement for conceptual design and agreement to construct only if downstream operators were able to comply at some future date.

Passage for both anadromous fish and other local freshwater species past this dam is critical for the health of the Blackstone River and the watershed as a whole. This goal of achieving fish passage on the lower dams of the Blackstone River was recently identified as a top priority for the watershed in the 2021 Blackstone Needs Assessment Report after a two-year outreach effort by the Narragansett Bay Estuary Program with extensive public feedback and support (https://bit.ly/BlackstoneReport).

The solution for the dam should include not only conceptual design for passage, but also the understanding and agreement of required landowners for the successful construction and maintenance of the fish passage. It is currently unclear that the appropriate easements are in place or possible for the proposed conceptual passage. The Blackstone Watershed Collaborative would like to see a complete explanation of this easement issue as it relates to the construction and operation and maintenance of the fish passage to resolve the land acquisition and/or easement before FERC approval is obtained. The project review should require not only a potential path for passage in the future, but a requirement for fish passage to be addressed and installed as an essential component of the final project.

Additionally, we echo our partners' letter to call for a Historic Structure Report to review the impact of increased water levels and pressures on our historic, cultural, and recreational resources, including the Blackstone Canal, Blackstone River, Blackstone River State Park, and Blackstone River Bikeway.

Thank you for your attention to this matter and considering our comments.

Stefanie Covino
Program Manager, Blackstone Watershed Collaborative