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February 8, 2021

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

## SUBJECT:West Canada Creek Project (FERC No. 2701-059)ILP Relicensing Updated Study Report Meeting Summary

Dear Secretary Bose:

Erie Boulevard Hydropower, L.P. (Erie or Licensee), a Brookfield Renewable company, is the Licensee, owner and operator of the West Canada Creek Hydroelectric Project (FERC No. 2701) (Project). The West Canada Creek Project consists of two developments, Prospect and Trenton, and is located on West Canada Creek in Oneida and Herkimer counties, New York. The current license for the West Canada Creek Project expires on February 28, 2023.

Erie is pursuing a new license for the Project using the Commission's Integrated Licensing Process (ILP) pursuant to 18 C.F.R. Part 5 of the Commission's regulations. In accordance with 18 C.F.R § 5.15(f), Erie filed the Updated Study Report (USR) on January 11, 2021. The USR and supporting report documents provided the results of Whitewater Boating Flow and Access Study conducted in 2020, and additional information associated with the Aesthetic Flow Assessment Study and the Updated Fish Entrainment and Turbine Passage Survival Assessment. Due to travel restrictions associated with the COVID-19 pandemic, Erie conducted the USR meeting through a virtual meeting (conference call) on January 25, 2021.

Pursuant to 18 C.F.R. § 5.15(c)(3), Erie is filing an USR meeting summary with the Commission within 15 days of the USR meeting (Attachment A). A copy of the USR meeting presentation can be found in Attachment B. Within 30 days of the filing of the USR meeting summary, on or before March 11, 2021, stakeholders may file any comments concerning the USR meeting summary, and any request for a new or modified study must adhere to requirements of 18 CFR § 5.15(f) of the Commissions regulations.

If you have any questions or require any additional information, please contact me at (315) 598-6130 or via email at steven.murphy@brookfieldrenewable.com.

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Steven Murphy Director, Licensing Brookfield Renewable

 Attachments:
 Attachment A – Updated Study Report Meeting Summary<br/>Attachment B – Updated Study Report Meeting Presentation

 cc:
 Distribution List<br/>Jon Elmer<br/>Pat Storms<br/>Rick Heysler

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#### ATTACHMENT A

#### UPDATED STUDY REPORT MEETING SUMMARY

#### MEETING/CALL SUMMARY WEST CANADA CREEK PROJECT (P-2701) Updated Study Report Meeting

<b>ATTENDEES:</b>	Emily Carter, FERC	Bob Nasdor, AW
	Allyson Connor, FERC	Kathy Kellogg, WCWA
	Laurie Bauer, FERC	Cindy Brady, NYPA
	John Wiley, USFWS	Tara Groom, NYPA
	Arianna Ramirez, USFWS	Steve Murphy, Brookfield
	Todd Phillips, NYSDEC	Jon Elmer, Brookfield
	Dave Erway, NYSDEC	Pat Storms, Brookfield
	Dick McDonald, NYSDEC	Rick Heysler, Brookfield
	Nicole Cain, NYSDEC	Bryan Apell, Kleinschmidt
	Steve Case, NYSDEC	Karen Klosowski, Kleinschmidt
	Chris Balk, NYSDEC	Jared Porter, Kleinschmidt
	Jana Lantry, NYSDEC	Kayla Hopkins, Kleinschmidt
	Bill Wellman, NYTU	
	Ken Ziobro, NYTU	
	Steve Prievo, NYTU	
	Paul Miller, NYTU	
MEETING DATE:	January 25, 2021	

Erie Boulevard Hydropower, L.P. (Erie or Licensee), a Brookfield Renewable company, is the Licensee, owner and operator of the West Canada Creek Hydroelectric Project (FERC No. 2701) (Project). The West Canada Creek Project consists of two developments, Prospect and Trenton, and is located on West Canada Creek in Oneida and Herkimer counties, New York. The current license for the West Canada Creek Project expires on February 28, 2023. Erie is pursuing a new license for the Project using the Commission's Integrated Licensing Process (ILP) pursuant to 18 C.F.R. Part 5 of the Commission's regulations.

In accordance with 18 C.F.R § 5.15(f), Erie filed the Updated Study Report (USR) on January 11, 2021.<sup>1</sup> The USR and supporting documents provide the results and status of the field studies conducted pursuant to the Commission's Study Plan Determination (SPD), including:

<sup>&</sup>lt;sup>1</sup> The Process Plan schedule for the USR filing is January 10, 2021, which fell on Sunday. If the due date falls on a weekend or holiday, the deadline is the following business day.

- Updated Fish Entrainment and Turbine Passage Survival Assessment;
- Whitewater Boating Flow and Access Study; and
- additional information associated with the Aesthetic Flow Assessment Study.

Erie held the USR meeting on January 25, 2021, within 15 days of the filing of the USR. Due to travel restrictions associated with the COVID-19 pandemic, Erie conducted the USR meeting through a virtual meeting platform (Teams/conference call). A copy of the USR meeting presentation can be found in Attachment B. Following is a summary of key topics and discussions during the USR meeting. Participants on the call included representatives from the Federal Energy Regulatory Commission (FERC), the United States Fish and Wildlife Service (USFWS), the New York State Department of Environmental Conservation (NYSDEC), American Whitewater (AW), New York Power Authority (NYPA), New York Trout Unlimited (NYTU), West Canada Creek Watershed Alliance (WCWA), Erie, and Kleinschmidt.

#### **Project Activities**

Following introductions of participants on the call, Steve Murphy (Erie) and Karen Klosowski (Kleinschmidt) provided a meeting introduction, including the purpose of the meeting, an overview of the ILP milestones, and the USR meeting agenda. Erie reviewed the overall Project schedule including key milestones associated with previous study activities and forthcoming relicensing activities (see slides 3 through 8, Attachment B).

#### **Updated Fish Entrainment and Turbine Passage Survival Assessment**

Bryan Apell (Kleinschmidt) presented a summary of the additional assessment incorporated into the Updated Fish Entrainment and Turbine Passage Survival Assessment (see slides 9 through 20, Attachment B). The additional assessment included: entrainment, impingement, and survival assessment of NYSDEC stocked trout per NYSDEC and FERC requests; additional analysis of burst speed per NYSDEC request; an updated entrainment database for Trenton to include data from more regionally appropriate New York region studies with similar trophic, fish assemblage, and habitat characteristics; and revised calculations based on these updates.

John Wiley (USFWS) questioned the availability of fish assemblage data in Trenton. Bryan Apell stated that the fish assemblage study included setting gill nets in Trenton; however, the gill netting resulted in catch of a single rock bass. Bryan Apell stated that two trout were found in the bypass reach of Prospect; however, no trout were found in Prospect impoundment during the 2019 electrofishing effort.

Dick McDonald (NYSDEC) questioned the size of trout used for the assessment, as it excluded trout in the 6-6.5-inch range. Dick McDonald stated that those sizes were

stocked in 2015, and size-at-stocking is based on what is available from the hatchery. Bryan Apell stated that trout of 8–9-inches were used in the assessment, and that this was based on the last 3 years of stocking measurements (2017 – 2019) provided by NYSDEC. Bryan Apell explained that given the stocking size, 8–9-inch trout were included in the review, but based on total length and associated swim speeds, were excluded from the entrainment estimate.

John Wiley (USFWS) stated that the USFWS mentioned in their comments for the ISR that limiting analysis to only burst speeds leaves out the fact that even fish with high burst speeds still can get entrained in some cases. Bryan Apell stated that the assessment looked at both burst speeds and sustainable speeds, and that FERC in the SPD agreed that sustainable speeds were appropriate for FERC staff to conduct their environmental analysis on survival of entrainment. However, Erie included assessment of burst speeds, as requested by NYSDEC, in the updated Fish Entrainment and Turbine Passage Survival Assessment report. Bill Wellman (NYTU) questioned if the entrainment calculation was conducted based on 1 inch rack spacing. Bryan Apell explained the calculations were based on the existing rack configurations. Bill stated that it would be interesting to assess entrainment rates for 1 inch spacing.

John Wiley (USFWS) questioned the overall assessment and the results, stating that swim speeds greater than intake velocities alone does not exclude fish from potential entrainment from volitional downstream movement, that fish can still be at risk even over a certain size. Bryan Apell stated that the analysis was based on accepted methodology, as described in the study methodology in the Revised Study Plan (RSP), and accepted in the FERC SPD. John Wiley stated that an analysis of entrainment was agreed to but not that Erie was going to exclude all volitional fish entrainment.

#### Whitewater Boating Flow and Access Study

Karen Klosowski (Kleinschmidt) reviewed the results of the Whitewater Boating Flow and Access Study (see slides 21 through 42, Attachment B). Allyson Conner (FERC) asked Erie if the flows in the 60-mile range can be identified as scheduled or natural events. Karen Klosowski stated that it is a mix of both and that the source, RiverFacts, did not have a break down. Allyson Conner said any available information about the timing/availability of flows would be helpful. Bob Nasdor (AW) questioned that use of RiverFacts, stating that this is not a vetted site, and RiverFacts is not a credible source. AW would encourage Erie to look at the AW site. Steve Murphy (Brookfield) stated that in developing the URS, Erie did ground truth a lot of information and trued up information on sites that Erie knew. John Wiley (USFWS) suggested looking at the timing of flow events. Erie could provide flows a few times a year when higher flow are more limited, and that Erie should look at flow release times that are more functionable and boatable.

#### Prospect Bypass Reach Assessment

Allyson Conner (FERC) asked Erie to describe the temporary take out during the Prospect bypassed reach whitewater boating controlled flow assessment. Steve Murphy (Erie) explained the temporary take out was part of the construction activities associated with the Trenton rubber flash installation and consisted of a floating barge with steps located at the dam at the intake area on river right. Steve Murphy also explained that along with the temporary take out there were temporary safety and operational control measures in place at the time and that the pond was down in elevation.

Bob Nasdor (AW) stated that Erie did a good job collecting data, and the assessment provided information pertaining to the value of the run. However, the summary and conclusion in the study report were more written as prospective rather than based on the study results, including the statements of being able go to Chasm approximately 3 hours away rather than boat at Prospect and Trenton and downstream. Bob Nasdor (AW) stated that AW will submit comments on the study.

Allyson Conner (FERC) questioned if the Prospect powerhouse was operating during the Prospect bypassed reach controlled flow assessment. Steve Murphy (Erie) explained that Prospect powerhouse was not operating during the assessment. Regarding the boater that swam during the on-water assessment, Allyson Conner questioned how the boater recovered his boat and got out of the water. Bob Nasdor (AW) explained that the boater swam to the shore and climbed out of the bypass without assistance and his boat was recovered by other boating participants. Bob Nasdor stated that the series of rapids directly upstream of Prospect tailrace could be scouted and potentially portaged. Karen Klosowski (Kleinschmidt) noted that while the rapids may be portaged, the put in below the rapids would be challenging.

John Wiley (USFWS) stated that based on being on site with boaters he remembered boaters saying that the Class IV drop upstream of Prospect tailrace was easily ported or boaters could portage around it. Bob Nasdor (AW) stated there were eddies that could be avoided and if more water was supplied it could smooth out areas. Bob Nasdor (AW) also stated that he thinks it is an area that could use another assessment of additional flows to see how things change, including ease of going through areas and portaging.

Allyson Conner (FERC) asked about the boating participants opinion of the Prospect Falls section of the bypassed reach. Bob Nasdor (AW) explained that the boaters' perspective did not present major concerns; however, he stressed the study participants were very experienced class V+ boaters. Steve Murphy (Erie) stated that Erie typically manages for whitewater boating for the general public boaters, as compared to the experienced boater. Erie has concerns about the less experienced thinking they can boat the reach when they may not have the appropriate skill set. Bob Nasdor (AW) stated that Prospect bypassed reach is not much different from other sites in the region, in that it includes different boating classes, but there are areas where a boater could potentially portage around the drops if they wanted to.

Bob Nasdor (AW) asked for clarification of the references to Ausable Chasm as an alternative site, which boaters used as a reference in the upper run. Karen Klosowski (Kleinschmidt) explained that Erie looked at this as a regional alternative draw. John Wiley (USFWS) stated that he would not limit the Prospect reach as Class 5 since it is possible to portage around those areas. Bob Nasdor stated that below Prospect Falls to below Military Road would be a park and play feature even for a Class II boater.

Allyson Conner (FERC) questioned if boaters could portage Prospect Falls. Steve Murphy (Erie) explained that during the assessment, the boaters accessed below the falls as a put-in location, and the land-based assessment included both above and below the falls during leakage conditions. Bob Nasdor (AW) stated that the upstream reach above the falls was short and that it is likely that someone would only put in below Prospect dam if the intent is to run the falls. If someone wanted to boat the reach below the falls, access would likely be from Military Road with put-in below the falls. During the assessment, the 1/3 of a mile up to the dam was not walked but it could be seen below the falls. This area was viewed in the dry (upper bypassed reach between the falls and dam) earlier that morning from Prospect dam and the top of Prospect Falls.

Allyson Conner (FERC) asked how the project operations were impacted during the assessments. Steve Murphy (Erie) explained that there were low flow events during the summer and things were complicated by the downstream construction at Trenton. With inflow around 200 cfs, Erie was storing water in Prospect. Bob Nasdor (AW) stated that this was an abnormal water year. Steve Murphy explained that Erie was able to shave a little water every day at Prospect and keep it in storage to get sufficient water for the controlled flow of two to three hours at 600 cfs for the assessment. Prospect was generating the whole time but at lower generation, except during the period of the assessment. Trenton remained online. Bob Nasdor (AW) questioned the average daily flows on slide 39, saying this is a peaking operation and that is might be helpful to look at an hourly basis rather daily basis.

#### Downstream Reach Assessment

During the downstream reach assessments, boaters were able to take more time and play a little more in areas. Emily Carter (FERC) asked if boaters use the NYSDEC angler access only to access the site. Bob Nasdor (AW) stated that boaters said they used the access site and have used them for years. Dick McDonald (NYSDEC) recognized that boater access has been an issue at the NYSDEC access sites in the past that are designated Fishermen Access Only. John Wiley (USFWS) made an informal comment that he personally boated below Morgan dam to Newport, 2 years ago. This stretch reminds him of the Delaware River where there are good Class I and II sections and eddies. When he ran it scrapped up a lot at 400 cfs, but with a bit more water would be nice.

Allyson Conner (FERC) asked for clarification of the 1,000 cfs and where the flow was provided from. Steve Murphy (Erie) explained that the 1,000 cfs was a target at Kast Bridge, so Erie attempted to supplement tributary inflows downstream of Trenton with flows from the Project; the Project flow for the study was provided based on releases from Prospect impoundment passed through Trenton Development. Bob Nasdor (AW) mentioned that Hinckley Reservoir had increased flow releases just days prior to the time of the study, making the study possible. Steve Murphy explained that targeting flows at Kast Bridge can be tricky as Erie has to manage for the Project inflows (Hinckley Reservoir releases) and tributary flows downstream of Trenton at the same time, which is compounded by a considerable travel time (7 to 8 hours) to KAST Bridge. For the 25 miles downstream from Trenton, flows were going through generation and not through the Prospect bypass reach. Any potential scheduled events would need to have water available, based on natural and Hinckley Reservoir flow releases.

#### Aesthetics

Karen Klosowski (Kleinschmidt) reviewed the bypass spill tables (slides 43 and 44, Attachment B). There weas no comments or discussion.

#### <u>Next Steps</u>

Karen Klosowski reviewed the next steps (slides 45 through 46, Attachment B). Erie will file the USR meeting summary on or before February 9, 2021. Erie will file their Final License Application on or before February 28, 2021. Any disagreements or requests for study requests to amend the USR studies must be filed by stakeholders by March 11, 2021. As defined in 18 CFR § 5.15(f), the proponent of any proposed or modified studies must demonstrate extraordinary circumstances warranting approval of any proposal for new information gathering or studies. Any stakeholder responses to disagreements/amendment requests must be filed by April 10, 2021. FERC will issue the Director's Determination on any disagreements/ amendment requests by May 10, 2021.

#### ATTACHMENT B

#### UPDATED STUDY REPORT MEETING PRESENTATION

## **Brookfield**



# West Canada Creek Hydroelectric Project FERC NO. 2701-NY Updated Study Report Meeting

January 25, 2021

Erie Boulevard Hydropower, L.P., a Brookfield Renewable Company

Brookfield Renewable A Leader in Renewable Power Generation



## Introductions, Meeting Purpose and Schedule

## Updated Study Report Meeting Agenda and Purpose



#### **Meeting Agenda**

Schedule <sup>1</sup>	Торіс
10:00 – 10:15	Introduction, Meeting Objectives, Overall Schedule
10:15 – 10:35	Fish Entrainment and Turbine Passage Survival Assessment
10:45 – 11:15	Whitewater Boating Flow and Access Study
11:15 – 11:30	Aesthetics Study Additional Information
11:30 – 12:00	Next Steps <ul> <li>Comments on USR</li> <li>Final License Application</li> </ul>

<sup>1</sup>Note: Schedule may vary, these are targeted times.

#### **Meeting Purpose**

- Review of Updated Study Report documents:
  - provide overview of the study reports included in the Updated Study Report (ISR); and
  - review any comments with respect to the USR.
- Review Next Steps.



## West Canada Creek Project and Schedule Overview

#### West Canada Creek Project Overview

## Brookfield

- West Canada Creek Hydroelectric Project (P-2701) (Project) is owned and operated by Erie Boulevard Hydropower, L.P. (Erie), a Brookfield company.
- The Project is located on West Canada Creek in Oneida and Herkimer counties, New York.
- The Project consists of two developments: Prospect and Trenton.
- The existing license expires on February 28, 2023.





#### Key Milestones of the West Canada Creek Project Relicensing Process

- Key Activities Completed
  - Erie filed Notice of Intent (NOI) and Pre-application Document (PAD)
  - FERC issued Scoping Document 1 (SD1)
  - FERC held Scoping Meeting and Site Visit
  - Erie filed Preliminary Study Plan (PSP)
  - FERC issued Scoping Document 2 (SD2)
  - Proposed Study Plan (PSP) Meeting
  - Comments on PSP
  - Erie file Revised Study Plan (RSP)
  - File comments on RSP
  - FERC issues Study Plan Determination (SPD)
  - First Season of Studies
  - File Initial Study Report (ISR)
  - ISR Meeting
  - Stakeholders comments on ISR
  - FERC determination on studies
  - Complete outstanding study efforts
  - File Draft License Application (DLA)
- Upcoming Key Activities
  - File Updated Study Report (USR)
  - USR Meeting
  - File Final License Application (FLA)

Activity	Responsible Party	Dates
File Draft License Application (DLA)	Erie	10/1/2020
File Comments on DLA	Stakeholders	12/30/2020
File Updated Study Report (USR)	Erie	1/10/2021
USR Meeting	Stakeholders	1/25/2021
File USR Meeting Summary	Erie	2/9/2021
File Final License Application (FLA)	Erie	2/28/2021
File Disagreements/Requests to Amend Study Plan	Stakeholders	3/11/2021
Issue Public Notice of FLA Filing	Erie	3/15/2021
File Responses to Disagreements/Amendment Requests	Stakeholders	4/10/2021
Issue Director's Determination on Disagreements/Amendments	FERC	5/10/2021

<sup>1</sup> Activities in shaded areas are not necessary if there are no study disputes

#### West Canada Creek Project Activities



- Erie filed the Revised Study Plan (RSP) on December 11, 2018.
- The Federal Energy Regulatory Commission (FERC) issued Study Plan Determination (SPD) on March 7, 2019.
- Erie filed the Initial Study Report (ISR) and the supporting study report documents on March 6, 2020.
- The ISR meeting was held on March 19, 2020.

STUDY REPORT	STATUS
Aquatic Mesohabitat Assessment Study	Completed and filed in the ISR <sup>1</sup>
Macroinvertebrate and Freshwater Mussel Survey	Completed and filed in the ISR
Impoundment Shoreline Characterization Study	Completed and filed in the ISR
Fish Assemblage Assessment	Completed and filed in the ISR
Fish Entrainment and Turbine Passage Survival Assessment	Initial report filed in the ISR; updated report provided in the USR <sup>2</sup>
Water Quality Study	Completed and filed in the ISR
Recreation Use, Needs and Access Study	Completed and filed in the ISR
Whitewater Boating Flow and Access Study	Progress report in ISR, study completed in 2020 and report provided in the USR
Aesthetic Flow Assessment Study	Completed and filed in the ISR, additional information provided in the USR

<sup>1</sup> Initial Study Report, filed on March 6, 2020

<sup>2</sup> Updated Study Report, filed on January 11, 2021

#### West Canada Creek Project Activities

- Comments on the ISR were filed by:
  - FERC (May 5, 2020),
  - U. S. Fish and Wildlife Service (USFWS) (May 6, 2020),
  - New York State Department of Environmental Conservation (NYSDEC) (May 6, 2020), and
  - American Whitewater (AW) (May 5, 2020).
- Erie filed with FERC its responses to the ISR comments on June 5, 2020.
- FERC issued determination on requests for study modifications on July 6, 2020.
  - FERC recommended Erie evaluate the potential entrainment, impingement, and survival of NYSDEC stocked trout in the Prospect impoundment.
- Erie completed additional study in 2020.
- Erie filed the USR and supporting report documents on January 11, 2021<sup>1</sup>, including:
  - updated Fish Entrainment and Turbine Passage Survival Assessment;
  - results of Whitewater Boating Flow and Access Study; and
  - additional information associated with the Aesthetic Flow Assessment Study.

<sup>&</sup>lt;sup>1</sup> The Process Plan schedule for the USR filing is January 10, 2021, which fell on Sunday. If the due date falls on a weekend or holiday, the deadline is the following business day.





### Initial Study Report filed on March 6, 2020

#### Updated Study Report

- Provides entrainment, impingement, and survival assessment of NYSDEC stocked trout per NYSDEC and FERC requests.
- Provides additional analysis of burst speed per NYSDEC request.
- Updated entrainment database for Trenton to include data from more regionally appropriate New York region studies with similar trophic, fish assemblage, and habitat characteristics; and revised calculations based on this updated database.

#### Variances from Approved Study Plan

- The Fish Entrainment and Turbine Passage Survival Assessment was implemented according to Erie's RSP and the FERC SPD.
- Additional assessment was added, including:
  - potential entrainment, impingement, and survival of trout that have been stocked in the Prospect impoundment, requested by NYSDEC and FERC; and
  - evaluation of burst swim speeds, requested by NYSDEC.



#### Updated Entrainment Database

- Trenton source sites were refined to more accurately reflect specific Project and biological parameters.
- The Prospect impoundment is mesotrophic and characterized by an extensive littoral zone populated by warmwater benthic and lithophilic-spawning fish species.
- Source sites used for Prospect were driven by data from mesotrophic warmwater impoundments.
- Trenton is relatively oligotrophic, lacks a littoral zone, and supports a less robust and diverse fish assemblage.
- Thus, projects occurring in warmer climates that support more productive warmwater fish assemblages do not accurately reflect the type of habitat and fish productivity present at Trenton.
- Trenton source sites were replaced with data from more regionally appropriate New York projects with similar trophic, fish assemblage, and habitat characteristics.



#### Updated Entrainment Database

• Trenton source sites were refined to more accurately reflect specific Project and biological parameters.

PROJECT (FERC NO.)	Project Size (MW)	TOTAL HYDRAULIC CAPACITY (CFS)	OPERATING MODE	LOCATION	Ent. Rate (fish/MCF <sup>2</sup> )
Dam #4 (P-2516)	2.1	1,849	run-of-river	West Virginia	0.1
Millville (P-2343)	2.8	2,220	run-of-river	West Virginia	0.4
E.J. West (P-2318)	22.1	5,400	peaking	New York	1.7
Hudson Spier Falls (P-2482)	56.0	8,970	peaking	New York	1.8
Sherman Island (P-2482)	38.2	6,600	peaking	New York	1.8
Hawks Nest (P-2512)	102.0	10,000	run-of-river	West Virginia	0.2
Trenton Development <sup>1</sup>	22.5	1,425	peaking	New York	1.0

<sup>1</sup> Estimated entrainment rate for the Trenton Development

<sup>2</sup> Million cubic feet



#### Updated to Assess NYSDEC Stocked Trout

- FERC recommended Erie evaluate the potential entrainment, impingement, and survival of NYSDEC stocked trout in the Prospect impoundment in recent years.
- NYSDEC does not stock trout in the Trenton impoundment, and therefore, Erie's response includes Prospect impoundment only.
- Erie maintains that:
  - inclusion of trout in the Prospect entrainment evaluation is not appropriate because it is managed as a *put-and-take* fishery that assumes 100 percent annual angler mortality rather than a naturally occurring population, and
  - the extent of abundance/recruitment of trout in the Prospect impoundment is wholly a function of annual stocking activities and not natural production.
- However, Erie provides additional discussion and evaluation of trout entrainment, impingement, and survival of trout in response to FERC's request.



#### Updated to Assess NYSDEC Stocked Trout

- Trout were not collected during the late summer 2019 electrofishing efforts.
- NYSDEC stocked a total of 2,800 brown trout in May 2017, 2,960 brown trout in May 2018, and 3,010 brown trout in April 2019.
- Length classes of stocked trout included fish approximately 8 inches (2017), 8.5 inches (2019), and 9 inches (2018) at time of release.
- Prospect Development approach velocity at the maximum station hydraulic capacity was estimated at 2.1 feet per second (fps).
- The sustained swim speed for trout 8 and 9 inches in length was calculated as approximately 2.0 fps and 2.3 fps, respectively, and increases with increasing fish length.
- Trout larger than 8 inches in length (i.e., the minimum stocked size) can escape the flow entering the Prospect intake at maximum generation, and accordingly, were not included in the entrainment estimates.
- The 8-inch fish, the smallest size class stocked by the NYSDEC, would potentially have a small window of time initially after stocking where they could be susceptible to entrainment. These fish would have sustained swim speeds that are nominally less than the maximum Prospect intake approach velocity (2.1 fps), although burst speeds for these fish would still be greater than approach velocities.



#### Updated to Assess Burst Speed Assessment

- NYSDEC (May 6, 2020) requested that Erie conduct an additional evaluation that considers burst swim speeds to produce more accurate results.
- ISR report conducted assessment based on sustained swim speeds, which assumes a conservative approach, as burst swim speeds are much higher speeds than sustained speeds and use of burst speed criteria would yield even fewer fish as being potentially susceptible to entrainment.
- FERC (July 6, 2020) stated that the sustained swim speed approach to estimate swim speed is reasonable and adequate for staff to conduct its environmental analysis of turbine passage survival and entrainment potential.
- However, Erie incorporated additional information pertaining to burst speeds, as appropriate, in the updated study report to address the NYSDEC request.



#### Updated to Add Burst Speed Assessment

- Sustained speeds are generally defined as those speeds that fish can maintain for long periods (i.e., greater than 200 minutes) without muscular fatigue (Beamish 1978).
- A USFWS bulletin (USFWS 1989 defines a conservative estimate of a fishes sustained swimming speed as 3 times its body length using the following equation:
  - Sustained Swimming Speed (fps) = Fish Length (ft) × 3 body lengths per second (fps).
- Burst speeds are generally defined as the highest speeds attainable by fish and can be maintained for only short periods of time (i.e., less than 20 seconds) (Beamish 1978).
- USFWS bulletin (USFWS 2019) provides a formula for deriving burst speeds from sustained speeds using the following equation:
  - Burst Swimming Speed (fps) = Sustained Swimming Speed (fps) × 2.



#### Updated to Add Burst Speed Assessment

	SUSTAINED SWIM SPEED	BURST SWIM SPEED	
FISH LENGTH (IN)	(FPS)	(FPS)	
1.0	0.3	0.5	
2.0	0.5	1.0	
3.0	0.8	1.5	
4.0	1.0	2.0	
5.0	1.3	2.5	
6.0	1.5	3.0	
7.0	1.8	3.5	
8.0	2.0	4.0	
9.0	2.3	4.5	
10.0	2.6	5.0	
12.5	3.1	6.3	
15.0	3.8	7.5	
17.5	4.4	8.8	
20.0	5.0	10.0	
22.5	5.6	11.3	
25.0	6.3	12.5	
27.5	6.9	13.8	
30.0	7.6	15.0	



#### Updated Results – Prospect Development

- Monthly flows were multiplied by the annual entrainment rate calculated for the Prospect Development to estimate annual entrainment rate of 1.5 fish per million cubic feet per second (MCF).
- Estimated annual entrainment at 52,211 fish per year at the Prospect Development prior to the application of biological and physical filters that influence entrainment.
- The calculated approach velocity at the maximum station hydraulic capacity is 2.1 fps
- Fish greater than 8 inches in length, including NYSDEC stocked trout, have sustained and burst swim speeds greater than 2.1 fps and able to escape flow entering the Project intake; therefore, fish larger than 8 inches were not included in the entrainment estimate.
- No fish within the electrofishing dataset collected at the Prospect development were found to be too wide to fit through the 3 5/8 in. width trash racks.
- Estimated annual mortality across correlation factors (0.1-0.2) based on sustained swim speeds ranged from 1,056 to 2,117 fish per year.
- Estimated annual mortality based on burst swim speed, mortality across correlation factors (0.1-0.2) ranged from 748 to 1,498 fish per year.



#### Updated Results – Trenton Development

- Monthly flows were multiplied by the annual entrainment rate calculated for the Trenton Development to estimate annual entrainment rate of 1.0 fish per MCF.
- Estimated annual entrainment at 32,461 fish per year at the Trenton Development prior to the application of biological and physical filters that influence entrainment
- The calculated approach velocity at the maximum station hydraulic capacity is 2.8 fps.
- Fish greater than 11 inches in length have sustained and burst swim speeds greater than 2.8 fps and able to escape flow entering the Project intake; therefore, fish larger than 11 inches were not included in the entrainment estimate.
- Only four white suckers within the electrofishing dataset collected at the Prospect Development were found to be too wide to fit through the trash racks. All four fish were greater than 11 inches in length and can out-swim intake velocities.
- Estimated annual mortality across correlation factors (0.1-0.2) based on sustained swim speeds ranged from 1,663 to 3,329 fish per year.
- Estimated annual mortality based on burst swim speed, mortality across correlation factors (0.1-0.2) ranged from 1,533 to 3,076 fish per year.



#### Results – Summary

- The magnitude of the average annual fish entrainment estimate presented in this report, and most desktop entrainment studies, is most likely an overestimate of the actual entrainment that typically occurs at the Project.
- The method used to determine Project operations was based on "ideal" conditions and assumes the Project is always available to operate at maximum capacity. The ability to account for times when the Project is not operating, or operating at a reduced flow, would further reduce entrainment and mortality estimates.
- The study assumed a constant annual entrainment rate, where the higher entrainment rates of spring and fall were retained during the winter months, thus resulting in a more conservative estimate.
- Over 75 percent of the estimated number of fish potentially entrained and lost to turbine mortality are pumpkinseed and yellow perch, species with high fecundity, capable of producing thousands of offspring per individual female each season.
- Given the results of this analysis, it is reasonable to assume the operation of the Project will have little effect on the health of the reservoir fishery.





#### General Study Purpose

- Desktop assessment of regional whitewater boating opportunities within approximately 1-hour drive (60 miles) of the Project area.
- Characterize historic records of minimum, maximum, median, and average flow rates and seasonal variations for the previous 5-year period.
- Review potential for whitewater boating opportunities within the Prospect bypass reach, including:
  - safety considerations,
  - adjacent land ownership and access, and
  - opportunities and limitations for ingress and egress.
- Conduct an on-water controlled flow assessment for downstream West Canada Creek to evaluate:
  - suitability for whitewater boating opportunities,
  - adequacy of existing put-in and take-out locations,
  - characterize the type of boating experience and potential demand, and
  - assess the type of experience flows provide for the downstream study area.

## WHITEWATER BOATING FLOW AND ACCESS STUDY



#### Variances from Approved Study Plan

- Postponed controlled flow assessment until 2020 season due to higher flows, logistical challenges, colder weather and associated safety considerations of the participants.
- During 2020, modification of the study area to include one expanded study reach (versus the two as stated in the ISR Study Progress Report) due to logistical and COVID pandemic considerations.
- Per AW's request, the downstream West Canada Creek controlled flow study reach was modified to include the reach from the put-in location at approximately NYSDEC Middleville access (DS Rec 9) to the take-out location at Kast Bridge.
- AW agreed to conduct two controlled flow events, one at target flow of approximately 1,000 cfs and one at target flow of approximately 1,400 cfs.



#### Regional Whitewater Boating Opportunities within 60 Miles of Project

Based on AW map (AW 2020b) that denotes locations by paddler ability levels (1 through 5) a total of 101 locations within 60 miles of the Project vicinity:

- 1 location within Class I,
- approximately 15 locations within Class II,
- approximately 30 locations Class III,
- approximately 36 locations Class IV, and
- approximately 19 locations Class V.

Based on Riverfacts (2020) almost 500 river miles of whitewater boating opportunities within approximately 60 miles, including:

- approximately 205 river miles with whitewater boating opportunities for Class I-III intermediate ability levels,
- approximately 207 river miles with ranges from Class I-V, and
- approximately 75 river miles for Class IV-V+ expert level capabilities.



Source: AW 2020b

#### Brookfield Renewable

#### Prospect Bypass Reach Study Area

- As defined in the RSP and the FERC approved SPD, the study area includes the area from below Prospect Falls to the Prospect powerhouse, approximately 0.8 mile in length.
- Study included land-based assessment and single controlled flow on-water assessment.







## Methodology and Consultation - Prospect Bypass Reach

- Erie conducted consultation with USFWS, NYSDEC and AW (September 12, 2019) to review adjacent land ownership; topography and characterization of the adjacent shoreline embankment; ingress and egress locations; and potential whitewater boating features.
- Erie and representatives from AW and USFWS conducted an in-field review of the Prospect bypass reach on September 24, 2019, to review potential put-in and take-out locations.
- Erie provided results of adjacent land use assessments in the ISR Whitewater Boating Flow and Access Study Progress Report (March 6, 2020).
- Erie collected additional drone footage of the Prospect bypass reach at a flow of 600 cubic feet per second (cfs).
- Erie reviewed drone footage specific to whitewater features and access with representatives from AW on November 15, 2019, and December 12, 2019.
- AW requested a single controlled flow assessment at 600 cfs.
- Consultation call with Recreation Working Group and FERC to review study methodology, study area, and schedule on September 9, 2020.



#### Methodology and Consultation - Prospect Bypass Reach

- Erie implemented single controlled flow boating assessment of study area at 600 cfs on September 23, 2020.
- Four, Class V boaters participated in the on-water assessment, with put-in below Prospect Falls and take-out at the Trenton impoundment dam area.
- Participants completed:
  - individual pre-run forms characterizing their skill levels and initial impressions;
  - individual post-run evaluation forms characterizing key features, impressions, ingress/egress, safety considerations; and
  - post-run focus group discussion to discuss collectively the boaters' evaluation of the reach.

#### **Prospect Falls**

- Following the September 9, 2020, consultation call and prior to study implementation, AW asked to change study area to include Prospect Falls (approximately 35-foot-high falls).
- Erie and AW held call with FERC to discuss issue on September 18, 2020.
- Erie implemented a land-based assessment of Prospect Falls, outside of the approved study scope, on September 23, 2020.
- Six participants completed a land-based evaluation of Prospect Falls on September 23, 2020; target flow for the assessment was 600 cfs.
- Participants completed individual evaluation forms and participated in a focus group discussion.



#### Results – Prospect Bypass Reach Land-Based Assessment

- Mapped the Prospect bypass reach mesohabitat and substrates during the Mesohabitat Assessment Study.
- Almost 100 percent of the eastern shoreline is steep cliff and provides no access.
- Approximately 70 percent of the western shoreline is steep/cliff, remaining predominantly has loose rock; difficult access to stream channel.
- Eastern shoreline is primarily Erie-owned parcels, western shoreline ownership includes a private parcel, Town of Trenton, MVWA, and Erie.
- Erie continues to have safety concerns with providing access given the significant egress issues, gorge-like banks with high cliffs and/or unstable rock outcroppings, in both the Prospect bypass reach and Trenton impoundment.





## Results – Prospect Bypass Reach Controlled Flow Assessment

#### Participants

- Ranged in age from 28 to 35 years old.
- Resided within approximately 150 miles of the Prospect Development.
- Primary on-water boating activity was whitewater kayaking using a hardshell kayak.
- Rated themselves as Expert Level (Class V) whitewater boaters.
- Have participated in on-water boating activities for 10 to 25 years (average 17 years).

Access (Put-in and Take-out)

- Participants indicated the put-in access was easy with a short trail to the put-in location.
- Participants indicated that sufficient parking could be available along Military Road or constructed at a small field upstream of the bridge.
- Participants indicated that the take-out near the Trenton Dam was easy due to the temporary structure.
- Some participants noted egress would be difficult without that structure.



## Results – Prospect Bypass Reach Controlled Flow Assessment

Flow

- All participants rated the flow as good or excellent and that the flow was just right for boaters at the Class IV and Class V experience levels.
- All participants rated navigability, aesthetic quality, and overall quality of the target flow as excellent.
- Ratings ranged between neutral and excellent for water depth, availability of play areas, rate of travel, and exposure of rocks and sand/gravel bars.
- Ratings were good or excellent for availability of rapids, eddies, force of water, speed of water/current, and safety (due to debris or other hazards).
- Participants stated preference for a release time of approximately 4 hours, and the potential to conduct multiple (2 runs) runs during one trip.
- Participants stated that the reach was runnable and 600 cfs provided a good flow level, and that a flow range of 700-800 cfs may provide optimal flows.



## Results – Prospect Bypass Reach Controlled Flow Assessment

Features and Demand

- Participants stated that the highlight of the run was scenery of the gorge and was in the same category, if not better, than the Ausable Chasm (NY).
- Participants indicated whitewater boating features included:
  - a play spot for surfing waves (Class II-III) below Military Road Bridge;
  - series of rapids (4 distinct areas) with multiple eddies; and
  - rapids above Prospect tailrace (Class IV IV+, one area of low Class V).
- Participants indicated that the scenery, multiple skill level challenges, and potential to complete multiple (2) runs would be potential draws for boaters.



Note: Prospect Station is not generating in this photo.



## Results – Prospect Bypass Reach Controlled Flow Assessment

Safety Considerations

- Participants rated safety due to flow levels as good, and safety due to debris or other hazards as good to excellent.
- Three participants stated they experienced or observed a safety hazard just below Prospect Falls where there were small trees along the shoreline and the last rapid located just upstream of the Prospect tailrace.
- Participants indicated that the most difficult section was the last two ledges/rapids above Prospect tailrace.
- Noted to have a large hole that could be hazardous to less experienced boaters but that could be scouted and avoided.
- One participant "swam" and lost the boat in the rapid and was able to self-rescue and reach the shoreline without harm.
- Participants indicated that due to nature of the gorge, rescue would likely involve litter carry out.
- One participant who teaches swift-water training for the New York Department of Homeland and Emergency Services indicated that local fire/police departments are likely not trained for technical/vertical rescue, so rescue services would need to be called in from other locations.



#### **Results – Prospect Falls Land Based Assessment**

- Six participants completed a land-based evaluation of Prospect Falls on September 23, 2020; the target flow for the assessment was 600 cfs.
- Participants indicated potential put in locations for the reach upstream of Prospect Falls would include at base of dam on river right and on river left with a trail through the wooded area.
- Participants indicated that Prospect Falls is likely Class IV-IV+ difficulty, runnable by experienced boaters and would need a minimum a flow of 700-800 cfs for boatability.
- Participants felt that the run would potentially be a regional draw, particularly if combined with lower Prospect bypass reach.
- Participants felt that the falls could be a good "learning falls" for higher skill levels.

Safety Considerations

• Erie considers Prospect Falls to be high risk and maintains safety concerns about the public conducting any boating runs of Prospect Falls.





#### Methodology and Consultation – Downstream West Canada Creek

- Due to anticipated higher flows, colder weather, shorter daylight periods and associated safety considerations of the participants, study was postponed until the 2020 study season.
- Due to COVID- related logistics, the study area for the downstream reach to include one reach that is primary focus for AW.
- Study area included put-in at the Middleville (NYSDEC access site DS Rec 9) to the take-out location at Kast Bridge, a length of approximately 6.5 river miles.
- Study reach has an approximately 7to 8-hour water flow travel time from Trenton tailrace.



## WHITEWATER BOATING FLOW AND ACCESS STUDY



#### Methodology and Consultation – Downstream West Canada Creek

- Erie consulted with Recreation Working Group and AW to determine target flows as required by the FERC SPD.
- AW initially proposed study flow releases of approximately 600 cfs, 1,000 cfs and 1,400 cfs.
- Due to drought conditions, water had not been available to provide the target flows for the study, which led to the review of conditions and rescheduling the field study dates over multiple weeks.
- Given logistical considerations (COVID, flow travel time, shuttle time, and limited daylight), Erie scheduled the field study to include two targeted flow releases which was supported by AW.
- Target flow on November 6, 2020 (Day 1) was 1,400 cfs, and the Kast Bridge gage identified flows of 1,140 cfs at put-in time and approximately 1,140 cfs at take-out time.
- Target flow on November 7, 2020 (Day 2) was 1,000 cfs, and the Kast Bridge gage identified flows of approximately 1,140 cfs at put-in time and approximately 970 cfs at take-out time.

## WHITEWATER BOATING FLOW AND ACCESS STUDY



#### Methodology and Consultation – Downstream West Canada Creek

- The controlled flow assessment was completed on Friday, November 6, 2020 (Day 1) and Saturday, November 7, 2020 (Day 2).
- A total of 12 individuals participated in the study, including 6 participants on November 6, 2020, 11 participants on November 7, 2020; and 5 boaters participating both days.
- Participants completed:
  - individual pre-run forms characterizing their skill levels and initial impressions;
  - individual post-run evaluation forms characterizing key features, impressions, ingress/egress, safety considerations; and
  - post-run focus group discussions to discuss collectively the boaters' evaluation of the reach.
  - Flow comparison surveys by participants that boated both days.





#### Brookfield Renewable

#### Results – Downstream Recreation Use, Access and Needs

- The Recreation Use, Needs and Access Study provides information about downstream recreation use, access and demand.
- The NYSDEC and NYSDOT provide access sites along West Canada Creek.
- The reach from Dover Road Bridge and extending approximately 2.5-miles downstream to the confluence of Cincinnati Creek is a catch and release zone known as the Trophy Section.
- Downstream reach supports recreational tubing opportunities starting about 2.5 miles downstream of Dover Road Bridge and extending about 5 miles downstream to the West Canada Creek Campground.
- AW identifies a Class I-II 28-mile-long whitewater boating run beginning at the Dover Road Bridge and extending to Herkimer.
- West Canada Creek Campground provides campground facilities, tubing and whitewater boating rentals, and shuttle services.
- Herkimer KOA Resort and Campground.





### Results – Downstream Recreation Use, Access and Needs

- According to the West Canada Creek Tubing website:
  - flows of less than 300 cfs are considered poor floating conditions;
  - flows of 301 cfs to 900 cfs are considered good floating conditions,
  - flows of 900 cfs to 1,750 cfs are considered fast floating conditions; and
  - at flows of over 1,750 cfs, no rentals are available.
- The West Canada Creek Campsites reported
  - tube rentals ranged from 156 to 928 annually (during 2015 to 2018), with average annual rental of 505 tubes; and
  - kayak/canoe annual rentals ranged from 22 to 135 (during the 2014 through 2018), with average annual rental of 76 kayaks/canoes.
- AW identifies two whitewater boating runs along the downstream West Canada Creek:
  - Section 1- described as Class I-II, extending from Dover Road to Route 29 in Middleville, with one portage around the Newport Dam; and
  - Section 2 described as Class II-II+, extending from Route 29 in Middleville to Route 7 at Kast Bridge north of Herkimer.

#### Results – Downstream Flow Characterization

- Estimated flow travel time from Trenton tailrace down to Kast Bridge is approximately 6 to 8 hours
- Tributaries, such as Cincinnati Creek, Cold Brook and Mill Creek, can contribute significantly to overall flow in the downstream reaches during a significant rain event.
- Characterization of flow conditions and seasonal variations for the previous 5-year period are provided in the USR.
- Erie provides information regarding flow releases at the Trenton Powerhouse via SafeWaters, a publicly accessible website and toll-free phone line.

#### Kast Bridge Gage Frequency of Whitewater Boating Flow Ranges

	PERCENT OF TIME FLOW EQUALED OR EXCEEDED <sup>1, 2, 3</sup>			
Month	600 CFS	1,000 CFS	1,400 CFS	
January	99	85	61	
February	85	71	68	
March	87	80	72	
April	99	99	98	
May	95	78	56	
June	79	46	37	
July	73	32	21	
August	59	16	3	
September	73	14	3	
October	90	53	24	
November	100	93	63	
December	100	100	64	
Annual	87	64	47	

<sup>1</sup>USGS Gage #01346000 West Canada Creek at Kast Bridge, NY.

<sup>2</sup> Based on daily average data for period January 1, 2015-December 31, 2019.

<sup>3</sup> 2019 data reflect 99-year flood of record on November 1, 2019.

Brookfield

Renewable



## Results – Downstream West Canada Creek Controlled Flow Assessment

#### Participants

- Ranged in age from 21 to 63 years old.
- Participants reside in New York and Massachusetts.
- Primary on-water boating activity was whitewater kayaking and whitewater canoeing
- Rated themselves as Intermediate (Class III), Advanced (Class IV) and Expert (Class V) whitewater boaters.
- Have participated in on-water boating activities for 2 to 40 years (average 21 years)
- Six participants had previously boated on West Canada Creek.

#### Access (Put-in and Take-out) and Flow Information

- Participants indicated that the Middleville (DS Rec 9) was a good put-in location with sufficient parking, good staging area and easy put-in area.
- Participants discussed potential "angler access only" restrictions at some of the NYSDEC access sites; however, indicated many boaters and tubers use NYSDEC access locations.
- Participants indicated that Kast Bridge was the preferred take-out location, given there are key whitewater boating features just upstream of Kast Bridge.
- Kast Bridge take-out location includes a short trail from the take-out to an informal parking area, with additional vehicle parking at nearby (within about 0.5 mile) NYSDOT access, allowing for shuttling between the two locations.



## Results – Downstream West Canada Creek Controlled Flow Assessment

#### Flow

- Participants responded that flows above 600 cfs were acceptable, optimal flow range is between 900-1,000 cfs on the low end and flows of 1,200 cfs or above were optimal for whitewater boating.
- Participants that boated both days and completed flow comparison survey indicated:
  - lowest flow range that was considered acceptable was 700 cfs to 1,100 cfs;
  - optimal flow ranges were from 900 cfs to 1,500 cfs; and
  - highest flow range the participants would consider boating was 3,500 cfs to greater than 5,000 cfs.
- Participants indicated that the reach is great for beginner/intermediate boaters (Class II/III), for teaching and for less experienced boaters to gain experience.
- Participants indicated that different flow levels would provide different boating opportunities for different craft and skill levels.
- Participants indicated that a minimum 4-hour block of stable water flow was desirable and that the reach can typically be run within a 2 to 3-hour block of time.
- Participants obtain information about flow levels prior to their trips from the Kast Bridge USGS gage, Brookfield's SafeWaters website, AW's website, National Oceanic and Atmospheric Administration's (NOAA) water prediction levels/NOAA river forecast, and local knowledge.



### Results – Downstream West Canada Creek Controlled Flow Assessment

#### Features and Demand

- Outstanding features or opportunities during the run included eddies just downstream of the put-in location, and the Class III rapid (Willow Rapid) just upstream of Kast Bridge
- Reach allows for overall "eddie hopping" with 2-3 surf wave spots.
- Overall reach is good for beginners/teaching as it starts out straight-forward and then grows in more technical difficulty downstream (i.e., rapids above Kast Bridge).
- Participants stated a desire for consistent availability of flows that would allow boaters to schedule group boating events and training sessions.
- Reach was previously used for local boating group events and training reach by local and college area boating group classes.
- Participants indicated regional draw from the Utica, Syracuse and Albany area and potentially larger draw if scheduled with other area whitewater boating events.

#### Safety Considerations

- One participant responded that they observed a hazard just below the Class III rapid where there was a piece of rebar protruding from the water in the middle of the river.
- Participants stated there were many areas along the run to exit the river or access for rescue.



### Frequency of Targeted Aesthetic Study Flow Ranges (2015-2019)

	PERCENT OF TIME FLOW EQUALED OR EXCEEDED <sup>1,2,3</sup>			
	Prospect Bypass Reach Spill			
Молтн	100 cfs	200 CFS	300 cfs	400 cfs
January	5	3	2	2
February	11	2	1	0
March	16	6	5	4
April	38	37	37	35
May	20	17	17	15
June	7	5	2	2
July <sup>3</sup>	14	12	8	7
August <sup>3</sup>	22	20	6	1
September <sup>3</sup>	20	19	10	5
October <sup>3</sup>	25	25	25	24
November <sup>3</sup>	15	11	9	9
December	3	2	2	1
Annual	16	13	10	9

<sup>1</sup> Data for period January 1, 2015-December 31, 2019, based on daily average data.

<sup>2</sup> 2019 data reflect 99-year flood of record on November 1, 2019.

<sup>3</sup> Includes spill that occurred during station outage period from late July 2015- November 2015 due to maintenance activities.



#### Frequency of Targeted Aesthetic Study Flow Ranges (2015-2019)

	PERCENT OF TIME FLOW EQUALED OR EXCEEDED <sup>1,2</sup>			
	Trenton Bypass Reach Spill			
Молтн	100 cfs	200 CFS	300 cfs	400 cfs
January	29	28	28	22
February	27	25	22	18
March	17	15	10	6
April	52	49	46	44
Мау	28	23	21	16
June	17	12	8	6
July <sup>3</sup>	8	6	4	2
August <sup>3</sup>	0	0	0	0
September <sup>3</sup>	2	1	1	<1
October <sup>3</sup>	7	6	5	5
November <sup>3</sup>	19	17	16	15
December	14	12	11	10
Annual	18	16	14	12

<sup>1</sup> Data for period January 1, 2015-December 31, 2019, based on daily average data.

<sup>2</sup> 2019 data reflect 99-year flood of record on November 1, 2019.



# Next Steps

#### **Next Steps**



- Erie to file USR meeting summary on February 9, 2021.
- Final License Application on or before February 28, 2021.
- Stakeholders file disagreements/requests to amend study plan by **March 11, 2021**.
  - As defined in 18 CFR § 5.15(f), the proponent of any proposed or modified studies must demonstrate extraordinary circumstances warranting approval of any proposal for new information gathering or studies.
- All stakeholders file responses to disagreements/amendment requests by **April 10, 2021**.
- FERC issues Director's Determination on disagreements/amendment requests on **May 10, 2021**.

#### **Information and Contacts**

- Documents filed with the Commission will be available from FERC's eLibrary at under Docket P-2701.
- The eLibrary can be accessed through the FERC's homepage, at http://www.ferc.gov, or directly at https://elibrary.ferc.gov/idmws/search/fercgensearch.asp.
- Key relicensing documents can be downloaded from the Project's relicensing website at: <u>http://www.westcanadacreekproject.com</u>.
- All stakeholders are encouraged to contact Brookfield directly at any time with any questions or concerns about the Project:

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