



YHPC, L.L.C.

York Haven Power Company

Water Power for the Future

February 21, 2024

Debbie-Anne Reese, Acting Secretary
Federal Energy Regulatory Commission
ATTN: OEP/DHAC
888 First Street, NE
Washington, DC 20426

RE: York Haven Hydroelectric Project (FERC No. 1888-036)
Article 401(b) – 2023 Fish Passage Operating Report

Dear Secretary Reese:

In accordance with Article 401(b) of the York Haven Hydroelectric Project (Project) Federal Energy Regulatory (FERC) license, the Pennsylvania Department of Environmental Protection (PADEP) Water Quality Certification (WQC), and the U.S. Fish and Wildlife Service (USFWS) fishway prescription, York Haven Power Company, LLC (York Haven) has enclosed the 2023 Fish Passage Operating Report (Report) for Commission review. The Report must be filed with the Commission annually by March 1, or within 30 days of the annual meeting, whichever is sooner. The Report must document Agency consultation.

York Haven distributed the 2023 draft Report to PADEP, USFWS, and other agencies for review and comment on December 28, 2023. USFWS and PADEP provided comments on January 22 and January 24, 2024, respectively. YHPC agrees with the USFWS and PADEP comments and thereby modified the text of Section 2.2.3 of the Report to reflect this agreement. YHPC hosted a virtual meeting with PADEP, Pennsylvania Fish and Boat Commission (PFBC), USFWS, Maryland Department of Natural Resources (MDNR), Susquehanna River Basin Commission (SRBC), and other agencies, on January 24, 2024, to review and discuss the Report. The USFWS and PADEP comments received on January 22 and 24 were also addressed during the January 24 meeting. Documentation of agency consultation is appended to the Report.

If you have any questions regarding this report, please contact me at (804) 338-5110 or joyce.foster@eaglecreekre.com.

Sincerely,



Joyce Foster
Director, Licensing and Compliance
York Haven Power Company, LLC

Enclosure (1)

CC: Ron Eberts, PADEP
Scott Williamson, PADEP
Jeremy Miller, PADEP
Brian Niewinski, PFBC
Sheila Eyler, USFWS
Jesus Morales, USFWS
Aaron Henning, SRBC
Shawn Seaman, MDNR
Emily Zollweg-Horan, NYSDEC



**UPSTREAM AND DOWNSTREAM
FISH PASSAGE AT THE YORK HAVEN
HYDROELECTRIC PROJECT (FERC P-1888):
2023 SUMMARY**

Prepared For:

**York Haven Power Company
P.O. Box 67, 1 Hydro Park Drive
York Haven, Pennsylvania**

Prepared By:

**Kleinschmidt Associates
Strasburg, Pennsylvania**

February 2024

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
EXECUTIVE SUMMARY	ES-1
1.0 INTRODUCTION.....	1
2.0 YORK HAVEN FISHWAY OPERATIONS.....	2
2.1 Project Operation.....	2
2.2 Fishway Design, Maintenance and Operation	2
2.2.1 Fishway Design.....	2
2.2.2 Fishway Maintenance.....	2
2.2.3 Fishway Operation	3
2.2.4 Fish Counts.....	4
2.3 Results	4
2.3.1 Spring Fishway Operation	4
2.3.2 Resident Fishway Operation	5
3.0 DOWNSTREAM FISH PASSAGE	6
3.1 Adult American Shad Passage	6
3.2 Juvenile American Shad Passage.....	6
4.0 LITERATURE CITED	8

TABLES

Table 1.	Summary of the Daily Number of Fish that Passed by the York Haven Hydroelectric Project through the Serpentine Vertical Notch Ladder at the East Channel Dam in 2023.....	10
Table 2.	Summary of Daily Average River Flow (USGS, Harrisburg Gage), Average Flow in the East Channel, Sum of Average Flow from the Power Station and Main Dam, Water Temperature, Secchi, Stop Log Gate Position, and East Channel and Fishway Water Elevations during Operation of the York Haven Fishway in 2023	12
Table 3.	Summary of Surface Water Elevations Recorded during Operation of the York Haven Fishway in 2023.....	13
Table 4.	Hourly Summary of American Shad Passage through the Serpentine Vertical Notch Fish Ladder at the York Haven Hydroelectric Project in 2023.....	14

FIGURES

Figure 1.	General Layout of the York Haven Hydroelectric Project Showing the Location of the Fishway and Canal Lock Boat Ramp.....	17
Figure 1a.	Location of Four Lower Susquehanna River Hydroelectric Projects and the Columbia Boat Ramp	18
Figure 2.	General Arrangement - York Haven Fishway	19
Figure 3.	Plot of River Flow (x 1000 cfs) at the USGS Harrisburg Station (01570500) and Average Daily Water Temperature (F) at the York Haven East Channel Fishway in Spring 2023 and 23-Year Average Flow Values (2000-2022)	20
Figure 4.	Plot of River Flow (x 1000 cfs) and East Channel Flow (x 1000 cfs) in Relation to the Daily American Shad Passage at the York Haven Fishway in Spring 2023.....	21
Figure 5.	Plot of River Flow (cfs) at the USGS Harrisburg Station (#01570500) and Average Daily Water Temperature (F) at the York Haven East Channel Fishway, March 31 to December 15, 2023	22
Figure 6.	Plot of River Flow (cfs) at the USGS Harrisburg Station (#01570500) and Average Daily Water Temperature (F) in the Headrace of the York Haven Power Station, May 1 to June 30, 2023	23
Figure 7.	York Haven Sluice Gate Operation, May 1 to June 30, 2023.....	24
Figure 8.	Plot of River Flow (cfs) at the USGS Harrisburg Station (#01570500) and Average Daily Water Temperature (F) at the York Haven East Channel Fishway, October 1 to November 30, 2023 and 23-year Average Flow Values (2000-2022).....	25
Figure 9.	York Haven Sluice Gate Operation, October 1 to November 30, 2023	26

APPENDICES

Appendix I:	Consultation Record
Appendix II:	Fishway Water Temperature (°F) - March 31 through December 15, 2023
Appendix III:	Station Generation Data - October through November 2023

EXECUTIVE SUMMARY

In 2023, York Haven Power Company (YHPC), in agreement with the Fish Passage Technical Advisory Committee (FPTAC), began counting operations at the East Channel Fishway in 2023 four days after 500 shad were transported from the Conowingo Lifts, (operated by Constellation Energy Generation, LLC), and stocked downstream of the York Haven Hydroelectric Project. The Conowingo Fish Lifts are the collection site of American Shad, Alewife and Blueback Herring, (collectively “River Herring”). American Shad, (9,422), Alewife, (16), and Blueback Herring, (370), were transported upstream from Conowingo in 2023. American Shad and River Herring were released at the Columbia Boat Ramp, downstream of the York Haven Project, (1,919 and 24, respectively) and Canal Lock Boat Ramp, upstream of York Haven and East Channel Dams, (7,503 and 362, respectively).

Fishway preparations began in early March and volitional passage (not staffed) began on March 31. Between March 31 and April 24, a 25-day period, the entrance and exit gates were opened and the North Fixed Wheel Gate was opened and set to deliver a minimum of 400 cfs to the East Channel. Fish counting operations began on Tuesday, April 25. The Fishway was staffed for a total of 53 days between April 25 and June 6. The Fishway was temporarily shut down due to high river flows ($\geq 121,000$ cfs) between May 2 and May 4. During this period, fish were counted and allowed to pass upstream daily between 0800 and 1600 hrs. At 1600 hours on June 6, Fishway operation was set to provide resident fish passage (volitional) through December 15 when it was closed.

During staffed Fishway operation 12,063 fish of 14 taxa were enumerated as they passed upstream into Lake Frederic. Gizzard Shad (6,395) was the dominant fish species passed and comprised 53.0% of the fish passed. A total of 69 American Shad were counted as they passed through the ladder. Other predominant fishes passed Smallmouth Bass (2,913), Walleye (617), and Carp (609). Passage varied daily and ranged from 4 individuals on May 5 to 1,404 individuals, 21.0% of the season total, on May 9.

A total of 69 American Shad passed upstream through the ladder between April 28 and May 13; 67 Shad passed between May 6 and May 9. American Shad passed at water temperatures of 56.2°F to 66.2°F, river flows of 25,400 cfs to 75,600 cfs and East Channel flows of 2,500 cfs to 14,000 cfs. Seventy-one percent of the Shad (49) passed between 0801 hrs and 1200 hrs; some 20 Shad passed from 1201 to 1600 hrs. Hourly passage varied from no Shad to 16 Shad. The peak hourly passage of Shad (16) occurred on May 7 between 0800 hrs and 0859 hrs.

During the adult American Shad downstream passage period, the sluice gate was opened as required (~370 cfs) for up to 2 hours, Monday through Friday, from May 1 to May 19. River flow dropped below Station hydraulic capacity on Monday May 22 and remained below Station hydraulic capacity through June 30. No physical observations of post-spawned adult American Shad were noted by York Haven personnel in the vicinity of the Project powerhouse, (“Station”). During the post-spawned adult downstream passage period, river flow varied from 6,600 cfs to 156,000 cfs. Average daily water temperature varied by 27.8 degrees at the York Haven Project: 51.7°F on May 3 to 79.5°F on June 2.

During the juvenile American Shad downstream passage period (JASPP), river flow varied from 7,000 cfs to 87,500 cfs (Figure 8) and was less than the Station hydraulic capacity (17,000 cfs) for 43 days. Flows were less than the Station hydraulic capacity from October 1 to October 5 and October 9 to November 12. In contrast, 22-year average flow values (2000 to

2022) exceeded the hydraulic capacity of the station and varied from 49,911 cfs to 17,919 cfs. Average daily water temperature at the Station forebay during the JASPP varied by almost 19 degrees. Water temperature increased slightly from 60.8°F on October 1 to 64.3°F on November 6 before declining to 42.0°F on November 29. Station generation data for October and November confirm that turbine unit operation sequence followed the JASPP guidelines. The Station forebay sluice gate was operated for 14.5 to 24 hrs daily from October 1 to November 30 to provide downstream passage of juvenile shad . The 7-day, weekly, sluice gate operation schedule is to remain open during hours 1400 to 0700 (overnight), Monday through Friday, and from 1400 hrs on Friday until 0700 hrs on Monday.

1.0 INTRODUCTION

Upstream and downstream fish passage operation at York Haven Hydroelectric Project (FERC No. 1888) is provided for in the Project's FERC License (FERC, 2015) and the Pennsylvania Department of Environmental Protection Water Quality Certification (PA DEP, 2014) issued on December 22, 2015, and August 19, 2014, respectively. During the American Shad upstream passage season, the Project is required to provide a minimum flow of 2,000 cfs in the East Channel and spill 4,000 cfs at the Main Dam. The Project is also required to operate and maintain the East Channel Fishway (Fishway) to allow passage of resident fish species each year from April 1 through the earlier of December 15 or until the average daily river temperature is 40°F for three consecutive days. During resident fish passage operation, the Project is required to provide a minimum stream flow of 400 cfs in the East Channel below the East Channel Dam. In addition, the Project is also required to spill water to provide for the downstream passage of adult and juvenile American Shad from May 1 to June 30 and from October 1 to November 30, respectively.

Fish passage operation is overseen by a Fish Passage Technical Advisory Committee comprised of representatives of the U.S. Department of the Interior represented by the U.S. Fish and Wildlife Service ("USFWS"), the Susquehanna River Basin Commission ("SRBC"), the states of Maryland and Pennsylvania and their involved agencies – Maryland Department of Natural Resources ("MDNR"), Pennsylvania Fish and Boat Commission ("PFBC") and Pennsylvania Department of Environmental Resources ("PADEP"). The FPTAC is responsible for reviewing and monitoring the maintenance and operation of the fish passage facilities at the Project, reviewing and providing comments on the annual report, and recommending studies and/or modifications to improve upstream and downstream passage. YHPC had a conference call with the York Haven FPTAC and other interested agencies on January 30, 2023, to review the 2023 Annual Fish Passage Report and discuss a USFWS request to modify the trigger for staffed Fishway operation during the spring migratory fish passage season. Based on these discussions, YHPC agreed to staff the Fishway in 2023 four days after 500 American Shad were transported from the Conowingo East and West Lifts and stocked downstream of York Haven.

In 2023, Conowingo, in accordance with FPTAC, operated the East and West Lifts to support trap and transport of American Shad and River Herring. Conowingo agreed to transport and release American Shad and River Herring upriver, 80% were to be transported and released above York Haven Dam and the remaining 20% were to be released upstream of Safe Harbor Dam. Conowingo also agreed to remove Northern Snakeheads, Flathead Catfish, and Blue Catfish from the East and West Lift catch, as they are considered to be invasive species by the MDNR. Because volitional passage was suspended at the East Lift, the Resource Agencies and Brookfield Renewable Partners L.P. agreed to suspend lift operations at Holtwood and Safe Harbor Hydroelectric Projects, downstream of York Haven Project.

A total of 10,022 American Shad were collected at the Conowingo East and West Lifts in 2023; 5,632 and 4,390 American Shad were collected at the East and West Lifts, respectively. Some 9,422 American Shad, 16 Alewife, and 370 Blueback Herring were transported upstream from Conowingo in 2023. A total of 1,919 American Shad were transported and released above Safe Harbor Dam at the Columbia Boat Ramp and 7,503 American Shad were released at the Canal Lock Boat Ramp upstream of York Haven (Figure 1 and Figure 1a). A total of 3 Alewife and 21 Blueback Herring transported and released above Safe Harbor Dam at the Columbia Boat Ramp and 13 Alewife and 349 Blueback Herring were released upstream of York Haven.

2.0 YORK HAVEN FISHWAY OPERATIONS

The installation and operation of the Fishway are part of a cooperative private, state and federal effort to restore American Shad (*Alosa sapidissima*) and other migratory fish to the Susquehanna River. In 1997, YHPC and the Resource Agencies reached a settlement agreement to revise the type and location of the York Haven fish passage facility. The Fishway is located in Dauphin County, Pennsylvania at the Three Mile Island end of the East Channel Dam at the Project. The Fishway was placed in service by YHPC in April 2000.

Fishway operation coincides with a springtime minimum flow release in accordance with the Project License and Water Quality Certification. YHPC maintains a spill of up to 4,000 cfs over the Main Dam and a minimum release of approximately 2,000 cfs in the East Channel during spring Fishway operation. River flow in excess of spring minimum flow requirements and station capacity is spilled over the Main and East Channel Dams.

2.1 Project Operation

The hydroelectric station located in York Haven, Pennsylvania built in 1904, is located at River mile 55 in Dauphin and York counties, Pennsylvania (Figure 1). It is the fourth upstream hydroelectric dam on the River. The Project is a 20 unit run-of-river facility capable of producing approximately 19 MW and has an estimated hydraulic capacity of 17,000 cfs. It includes two dams that impound approximately 5 miles of the River forming Lake Frederic. The Main Dam is approximately 5,000 ft long with a maximum height of 17 ft. The East Channel Dam is approximately 925 ft long with a maximum height of 9 ft. When River flow exceeds station hydraulic capacity (55% of the year), water is spilled over the two dams. During the spring spawning season, river flows in excess of spring minimum flow requirements are spilled over the Main and East Channel dams.

2.2 Fishway Design, Maintenance and Operation

2.2.1 Fishway Design

Fishway design incorporated numerous criteria established by the USFWS and the other Resource Agencies. The Fishway has an operating limit of 150,000 cfs River flow (East Channel flow limit of approximately 22,000 cfs). The Fishway includes two sections; a “weir cut” and a vertical notch fish ladder. Figure 2 provides the general arrangement of the Fishway. A detailed description of the Fishway and its major components is included in the York Haven Project Fishway Operation Plan (2023). Volitional passage at the Fishway is to begin on or about April 1, conditions permitting.

2.2.2 Fishway Maintenance

Per the 2023 York Haven Fishway Operation Plan, preparation and maintenance of the Fishway began in early March. Several minor issues undertaken and completed prior to Fishway operation included: the repair and adjustment of Stop Gate limit switches, weight was added to the Stop Gate allowing it to close under high flows, installation of missing section of staff gage at Fishway exit, and the removal of decking material (diamond plate) to account for flex in the left exit gate stem. In addition, due to an abundance of caution, maintenance staff requested that operation of the Exit Gate operation be limited to 4% closed and/or 96% open.

Resident fish passage operation is scheduled to end on December 15 or when the average daily water temperature is ≤ 40 degrees Fahrenheit for three consecutive days. Thus, in the beginning of December, YHPC contacted its supplemental labor contractor and developed a plan and schedule to close the Fishway. During the Fishway closure procedures on December 15 an overall inspection is undertaken, and minor repairs are completed. The Fishway was closed on December 15.

2.2.3 Fishway Operation

Fishway preparations began in early March and volitional passage (not staffed) began on March 31. Between March 31 and April 24, a 25-day period, the entrance and exit gates were opened and the adjustable crowder gate was set to full open (24 inches). The diffuser gate located on the east wall of the ladder, in the energy dissipation pool, was set to full open and allowed supplemental attraction water to pass into and through the diffuser (Figure 2). In addition, during volitional passage, the North fixed wheel gate was opened and set to deliver a minimum of 400 cfs to the East Channel. Based on a 2023 request by the USFWS and the PADEP (Appendix I) to improve internal fish passage efficiencies of fish that find and enter the serpentine vertical notch ladder, the Project will no longer open the diffuser gate that feeds the floor diffuser inside the entrance gate. The diffuser gate will remain closed during fishway operation. The December 2023 York Haven Fishway Operation Plan, Section 5.1, also states that the diffuser gate will remain closed during fishway operation.

The Fishway was staffed beginning on Tuesday, April 25, four days after 500 shad had been transported from the Conowingo East and West Lifts and stocked below York Haven Dam. In 2023, the Fishway was manned on a total of 53 days between April 25 and June 6; high river flows ($\geq 121,000$ cfs) temporarily closed the Fishway from May 2 to May 4. Generally, during manned operation, fish were counted and allowed to pass upstream daily between 0800 and 1600 hrs. At 1600 hours on June 6, Fishway operation was set to provide volitional (unmanned) resident fish passage through December 15 when the Fishway was closed for the year.

Between the afternoon of April 15 and June 6, both fixed wheel gates were fully opened. These gates remained open throughout the spring spawning migration. The entrance gate was the only gate that was adjusted throughout the migratory fish passage season. The differential between the surface water elevation downstream of the entrance and the water elevation in the diffuser area of the fish ladder at the entrance gate was normally 0.5 ft to 0.6 ft. The 7-ft wide stop gate, located between the weir and the fish ladder entrance, remained closed during the entire period of operation.

Excluding the first and last day the Fishway was staffed, the Fishway was typically staffed by one person. This person, a biologist or technician, adjusted the position of the entrance gate, counted and recorded the number and species of fish that passed through the ladder hourly, removed debris from the exit of the ladder, made visual observations of fish activity and movement in and through the ladder. These individuals also recorded water elevations several times each day on staff gauges located throughout the Fishway.

Staffed Fishway operation ended at 1600 hours on June 6 (Appendix I), when the South fixed wheel gate was closed, and the North fixed wheel gate and ladder was set to deliver at least 400 cfs into the East Channel. The Fishway provided volitional passage until it was closed on December 15.

Water temperature was collected in the Fishway at 60-minute intervals from March 31 through December 15 (Appendix II) with an Onset Hobo Water Temperature Pro v2 Data Logger (U22-001) that has a ± 0.4 °F accuracy. The monitor was suspended approximately 4 ft above the bottom (Elev. 274.63 ft) of the Fishway exit flume opposite the counting window on the east side of the exit flume (Figure 2). Average daily water temperature during the spring (Figure 3) increased almost 34 degrees and ranged from a low of 45.6°F on March 31 to a high of 79.5°F on June 2.

2.2.4 Fish Counts

Fish that passed through the ladder were identified to species and enumerated as they passed the counting window by a biologist and/or technician. The Fishway Operation Plan (2023) describes the procedures used to count fish. Fish passage by the viewing window was controlled by opening or closing an aluminum grating gate with an electric hoist that was controlled from inside the viewing room. The stop gate was opened each morning at 0800 hrs and closed nightly at 1600 hrs when the Fishway was manned. Occasionally, it was closed for brief periods of time as needed each day to enable personnel staffing the Fishway to remove debris from screens and the fishway exit as well as conduct other activities as needed. In addition, to improve viewing, the adjustable crowder screen was adjusted as needed to allow all fish that passed to be observed. Adjustable screen settings on the days the Fishway was staffed varied from 6 to 18 inches.

As in previous seasons, fish passage data was entered on a field data sheet and uploaded onto a computer. Files were uploaded each evening, checked and corrected as necessary. Data reporting was PC-based and accomplished by program scripts, or macros, created within Microsoft Excel spreadsheets. Passage data and operational conditions were supplied electronically to YHPC's on-site coordinator/manager and other appropriate YHPC personnel on a daily basis. Passage information was subsequently provided electronically by YHPC personnel to members of the FPTAC.

2.3 Results

2.3.1 Spring Fishway Operation

2.3.1.1 Relative Abundance

During staffed Fishway operation 12,063 fish of 14 taxa were enumerated as they passed upstream into Lake Frederic (Table 1). Gizzard Shad (6,395) was the dominant fish species passed and comprised 53.0% of the fish passed. A total of 69 American Shad were counted as they passed through the ladder. Other predominant fishes passed Smallmouth Bass (2,913), Walleye (617), and Carp (609). Passage varied daily and ranged from 1,404 fish on May 9 when 21.0% of the season total was passed to 4 fish on May 5.

2.3.1.2 American Shad Passage

A total of 69 American Shad passed upstream through the ladder between April 28 and May 13; 67 Shad passed between May 6 and May 9. American Shad passed at water temperatures of 56.2°F to 66.2°F, River flows of 25,400 cfs to 75,600 cfs and East Channel flows of 2,500 cfs to 14,000 cfs (Table 2, Table 3, Figure 3 and Figure 4).

The hourly passage of American Shad through the fish ladder is given in Table 4. Seventy-one percent of the Shad (49) passed between 0801 hrs and 1200 hrs; some 20 Shad passed from 1201 to 1600 hrs. Hourly passage varied from no Shad to 16 Shad. The peak hourly passage of Shad (16) occurred on May 7 between 0800 hrs and 0859 hrs.

2.3.1.3 Other Alosids

No Alewife or Blueback Herring were observed passing the Fishway (Table 1).

2.3.2 Resident Fishway Operation

During resident fish passage, March 31 through April 24, the entrance and exit gates were opened and the North Fixed Wheel Gate was opened and set to deliver a minimum of 400 cfs to the East Channel providing volitional passage of resident fish. Following staffed operation on June 6, resident fish passage resumed and the Fishway was reset when the South fixed wheel gate was closed, and the North fixed wheel gate and ladder was set to deliver at least 400 cfs into the East Channel until it was closed on December 15. From March 31 through December 15, water temperatures varied from 38.4°F to 86.2°F and River flows ranged from 8,850 cfs to 183,000 cfs (Figure 5).

3.0 DOWNSTREAM FISH PASSAGE

Article 401 of the Project license, Conditions III.B.2.b and 3.a.i and ii of the Pennsylvania Department of Environmental Protection (PADEP) Water Quality Certification, and 9.9.6 of the United States Fish and Wildlife Service (USFWS) fishway prescription require downstream passage of adult and juvenile American Shad. Downstream passage of adult American Shad is expected to occur from May 1 to June 30 while downstream passage of juvenile American Shad is to occur from October 1 through November 30. Based on a USFWS request received on January 15, 2021, the Project began collecting water temperature in the Station forebay at 60-minute intervals in 2021 with an Onset Hobo Water Temperature Pro v2 Data Logger (U22-001) that has a $\pm 0.4^{\circ}\text{F}$ accuracy. In 2023, the monitor was suspended in a standpipe on the west side of the forebay approximately 4 ft above the bottom behind the trash rack in the exciter pit area located on the south of Turbine Unit 1. Station personnel downloaded the monitor on February 7, March 22, August 18, and December 1, 2023.

3.1 Adult American Shad Passage

When River flows exceed the sum of Station hydraulic capacity (17,000 cfs), and required flows through the East Channel (2,000 cfs) and required flows over the Main Dam ((4,000 cfs), (Total of 23,000 cfs)), the Project, according to its FERC License and 401 Water Quality Certification, is to open and spill water via the forebay Sluice Gate (~370 cfs) to the extent practicable for a period of 1 to 2 hours during the morning on weekdays, subject to Project personnel availability and access requirements for operations and maintenance purposes and may be provided in connection with opening of the forebay Sluice Gate for purposes of passing debris. During the post-spawned adult downstream passage period, river flow varied from 6,600 cfs to 156,000 cfs (Figure 6). Average daily water temperature varied by 27.8 degrees at the Project (Fishway) and ranged from a low of 51.7°F on May 3 to a high of 79.5°F on June 2.

During the adult downstream passage period, the sluice gate was opened as required (~370 cfs) for up to 2 hours, Monday through Friday, from May 1 to 19, as river flows exceeded a total of 23,000 cfs and requirements for operations and maintenance purposes (Figure 7) river flow dropped below Station hydraulic capacity on Monday, May 22 and remained below Station hydraulic capacity through June 30 and per the Projects License, the downstream bypass was not operated. No physical observations of post-spawned adult American Shad were noted by Station personnel.

3.2 Juvenile American Shad Passage

During the Juvenile American Shad Passage Period (JASPP), October 1 to November 30, YHPC operates the turbines as follows. Depending on available River flow, Units 1-6 (Propeller/Kaplan units) may be operated without restriction up to available River flow. Unit 14 (larger single Francis unit) may be operated if river flow exceeds capacity of Units 1 to 6; Units 7 to 13 and 15 to 20 (double Francis units) may be operated in ascending order if river flow exceeds capacity of Units 1-6 and 14. During the downstream JASPP, the Station is to also open and spill water via the Forebay Sluice Gate (~370 cfs) between the hours of 5 PM to 11 PM EST. If during the downstream passage period, River flow exceeds the sum of Project hydraulic capacity, required flows through the East Channel and required flows over the Main Dam (if any), the Project is also to open and spill water via the forebay sluice gate to the extent

practicable for 1 to 2 hours during the morning, subject to Project access requirements for operations and maintenance purposes.

During the JASPP, Units 1 and 5 were out of service during the JASAPP. River flow varied from 7,000 cfs to 87,500 cfs (Figure 8) and was less than the Station hydraulic capacity (17,000 cfs) on 43 days. Flows were less than the Station hydraulic capacity from October 1 to October 5 and October 9 to November 12. In contrast, 22-year average flow values (2000 to 2022) always exceeded the hydraulic capacity of the station and varied from 49,911 cfs to 17,919 cfs. Average daily water temperature at the Project (Forebay) during the JASPP varied by almost 19 degrees. Water temperature increased slightly from 60.8°F on October 1 to 64.3°F on November 6 before declining to 42.0°F on November 29. Station generation data¹ for October and November, provided in Appendix III, confirm that Turbine Unit operation followed the JASPP operating guidelines. In accordance with the Projects FERC License and 401 Water Quality Certification, the Sluice Gate was generally opened for 14.5 to 24 hrs daily from October 1 to November 30 to provide downstream passage of juvenile shad (Figure 9). Generally, the Sluice Gate was closed from 0700 hrs to 1400 hrs during the week and the Gate was left open from 1400 hrs on Friday until 0700 hrs on Monday.

¹ Station generation data to be provided separately in Excel file.

4.0 LITERATURE CITED

Commonwealth of Pennsylvania Department of Environmental Protection. August 19, 2014. Water Quality Certification for the York Haven Hydroelectric Project and Related Mitigation, DEP File No. –EA67-023: York Haven Power Company, LLC, 65 pp.

Federal Energy Regulatory Commission. December 15, 2015. Order Issuing New License for York Haven Power Company, LLC. 135 pp.

York Haven Power Company, LLC, and Kleinschmidt. 2023. Fishway Operation Plan. FERC Accession No. 20231220-5267.

TABLES

Table 1. Summary of the Daily Number of Fish that Passed by the York Haven Hydroelectric Project through the Serpentine Vertical Notch Ladder at the East Channel Dam in 2023

Date	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	1-May	2-May	3-May	4-May	5-May	6-May	7-May	8-May	9-May	10-May	11-May	12-May	13-May	14-May
Observation Time (hrs.)	4.0	8.0	8.0	8.0	8.0	8.0	8.0	-	-	-	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
Water Temperature (°F)	59.2	59.3	61.4	58.1	57.8	56.1	53.8	52.4	51.7	52.6	54.0	56.2	56.2	59.2	60.9	62.4	64.3	66.9	66.2	65.7
American shad	0	0	0	2	0	0	0	-	-	-	0	15	39	9	2	0	0	0	2	0
Alewife	0	0	3	61	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Blueback herring	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Gizzard shad	15	14	28	15	9	15	0	-	-	-	0	210	557	1,111	1,240	840	732	245	506	215
Hickory shad	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Striped bass	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
White perch	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
American eel	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Brown trout	0	0	1	0	0	0	0	-	-	-	0	0	0	1	0	0	0	0	0	0
Muskellunge	0	2	0	0	0	1	0	-	-	-	0	0	0	0	0	0	0	2	0	0
Carp	0	35	61	28	4	15	2	-	-	-	2	52	37	10	7	31	19	44	32	14
Quillback	0	2	3	6	2	1	0	-	-	-	0	0	10	28	19	11	9	5	3	11
White sucker	0	0	0	0	1	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Shorthead redhorse	0	0	87	69	18	5	2	-	-	-	0	0	18	61	65	18	10	25	6	0
White catfish	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Yellow bullhead	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Brown bullhead	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Channel catfish	0	1	10	1	2	1	2	-	-	-	2	0	12	11	20	19	15	23	16	12
Rock bass	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Redbreast sunfish	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Bluegill	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Smallmouth bass	1	24	137	83	13	2	0	-	-	-	0	1	4	36	41	26	48	156	59	43
Walleye	5	15	38	24	15	5	1	-	-	-	0	0	0	0	7	6	3	6	12	5
River chub	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Northern hog sucker	0	0	0	0	0	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0
Flathead catfish	0	0	0	1	0	0	0	-	-	-	0	0	2	0	3	5	2	4	3	2
Total	21	93	368	290	64	45	7	-	-	-	4	278	679	1,267	1,404	956	838	510	639	302

Table 1 (continued)

Date	15-May	16-May	17-May	18-May	19-May	20-May	21-May	22-May	23-May	24-May	25-May	26-May	27-May	28-May	29-May	30-May	31-May	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	Total
Observation Time (hrs.)	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	316
Water Temperature (°F)	67.6	68.1	66.9	65.7	65.3	67.6	68.4	71.0	72.0	72.7	70.7	70.3	71.9	72.2	73.4	74.6	75.5	77.6	79.5	70.0	76.7	74.8	73.6	-
American shad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
Alewife	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64
Blueback herring	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gizzard shad	34	20	39	14	11	23	0	134	5	13	5	137	0	4	24	4	11	7	11	52	54	13	28	6,395
Hickory shad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Striped bass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White perch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
American eel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brown trout	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Muskellunge	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Carp	13	5	26	7	4	5	15	23	9	6	12	10	3	4	6	11	11	15	6	3	8	10	3	608
Quillback	11	18	7	11	6	2	4	25	3	8	8	7	3	2	1	0	1	1	0	2	2	6	0	238
White sucker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Shorthead redhorse	0	0	7	4	2	8	9	68	18	17	2	5	10	28	17	0	2	0	2	3	2	0	0	588
White catfish	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow bullhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brown bullhead	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Channel catfish	12	6	17	15	11	2	42	42	112	40	14	4	3	2	4	2	2	7	10	11	30	22	9	566
Rock bass	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Redbreast sunfish	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bluegill	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0	2	1	8
Smallmouth bass	55	162	75	95	37	28	5	279	308	221	59	47	50	132	220	105	79	83	64	39	26	43	27	2,913
Walleye	16	5	14	21	21	20	0	19	74	56	18	16	13	16	27	12	20	12	10	3	15	58	9	617
River chub	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Northern hog sucker	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flathead catfish	2	4	2	0	2	0	0	0	0	1	1	3	2	0	2	1	1	0	0	1	3	2	3	52
Total	144	220	187	167	94	88	75	591	529	362	120	229	84	188	301	135	127	126	105	114	140	156	80	12,127

Table 2. Summary of Daily Average River Flow (USGS, Harrisburg Gage), Average Flow in the East Channel, Sum of Average Flow from the Power Station and Main Dam, Water Temperature, Secchi, Stop Log Gate Position, and East Channel and Fishway Water Elevations during Operation of the York Haven Fishway in 2023

Date	American Shad Passage	River Flow (cfs)	East Channel Flow (cfs)	Main Channel Flow (cfs)	Water Temp. (°F)	Secchi (in)			Stop Log Gate	Elevation (ft)					
						Avg.	Min.	Max.		Head Pond			Tailwater		
										Avg.	Min.	Max.	Avg	Min.	Max.
25-Apr	0	21,200	2,500	18,700	59.2	18	18	18	Closed	279.1	279.0	279.1	273.8	273.8	273.8
26-Apr	0	21,900	2,500	19,400	59.3	14	10	18	Closed	279.1	279.0	279.1	273.8	273.8	273.8
27-Apr	0	25,000	2,500	22,500	61.4	18	18	18	Closed	279.1	279.0	279.1	273.5	273.5	273.5
28-Apr	2	25,400	2,500	22,900	58.1	18	18	18	Closed	279.1	279.0	279.1	273.6	273.5	273.7
29-Apr	0	24,800	2,795	22,005	57.8	18	18	18	Closed	279.1	279.1	279.1	274.2	274.2	274.2
30-Apr	0	36,500	2,975	33,525	56.1	18	18	18	Closed	279.3	279.1	279.5	274.3	274.2	274.5
1-May	0	101,000	14,000	87,000	53.8	4	4	4	Closed	281.3	280.8	281.7	277.8	277.0	278.5
2-May	-	159000	-	-	52.4	-	-	-	Closed	-	-	-	-	-	-
3-May	-	152000	-	-	51.7	-	-	-	Closed	-	-	-	-	-	-
4-May	-	121000	-	-	52.6	-	-	-	Closed	-	-	-	-	-	-
5-May	0	92,500	14,000	78,500	54.0	4	4	4	Closed	281.3	280.8	281.7	277.8	277.0	278.5
6-May	15	75,600	12,200	63,400	56.2	3	3	3	Closed	281.0	281.0	281.0	276.9	276.9	276.9
7-May	39	65,700	10,000	55,700	56.2	5	3	6	Closed	280.7	280.6	280.7	276.4	276.3	276.4
8-May	9	58,200	7,250	50,950	59.2	6	6	6	Closed	280.2	280.2	280.2	275.8	275.8	275.8
9-May	2	53,100	7,250	45,850	60.9	6	6	6	Closed	280.2	280.2	280.2	275.3	275.3	275.3
10-May	0	48,700	7,250	41,450	62.4	12	12	12	Closed	280.2	280.2	280.2	275.3	275.3	275.3
11-May	0	43,500	6,200	37,300	64.3	12	12	12	Closed	280.0	280.0	280.0	275.0	275.0	275.0
12-May	0	37,300	6,200	31,100	66.9	12	12	12	Closed	280.0	280.0	280.0	274.8	274.8	274.8
13-May	2	32,700	4,800	27,900	66.2	16	16	16	Closed	279.7	279.7	279.7	274.7	274.7	274.7
14-May	0	29,400	4,000	25,400	65.7	16	16	16	Closed	279.6	279.6	279.6	274.5	274.5	274.5
15-May	0	26,700	2,975	23,725	67.6	12	12	12	Closed	279.3	279.3	279.3	274.5	274.5	274.5
16-May	0	24,100	2,975	21,125	68.1	12	12	12	Closed	279.3	279.3	279.3	274.4	274.4	274.5
17-May	0	22,000	2,500	19,500	66.9	5	3	6	Closed	279.1	279.1	279.1	274.3	274.3	274.3
18-May	0	19,800	2,500	17,300	65.7	12	12	12	Closed	279.1	279.1	279.1	274.2	274.0	274.3
19-May	0	18,300	2,075	16,225	65.3	15	15	15	Closed	278.8	278.8	278.8	274.0	274.0	274.0
20-May	0	17,300	2,075	15,225	67.6	15	15	15	Closed	278.8	278.8	278.8	273.8	273.8	273.9
21-May	0	16,100	2,075	14,025	68.4	15	15	15	Closed	278.8	278.8	278.8	273.7	273.7	273.7
22-May	0	15,100	2,075	13,025	71.0	18	18	18	Closed	278.8	278.8	279.0	273.8	273.8	273.8
23-May	0	14,300	2,075	12,225	72.0	18	18	18	Closed	278.8	278.8	278.6	273.6	273.6	273.6
24-May	0	13,800	2,075	11,725	72.7	18	18	18	Closed	278.8	278.8	278.9	274.0	274.0	274.0
25-May	0	13,000	2,075	10,925	70.7	18	18	18	Closed	278.8	278.8	278.8	273.5	273.5	273.5
26-May	0	12,300	2,075	10,225	70.3	18	18	18	Closed	278.8	278.8	278.8	273.6	273.6	273.6
27-May	0	11,800	2,075	9,725	71.9	18	18	18	Closed	278.8	278.8	278.8	273.8	273.8	273.8
28-May	0	11,200	2,075	9,125	72.2	18	18	18	Closed	278.8	278.8	278.8	273.8	273.8	273.8
29-May	0	10,500	2,075	8,425	73.4	18	18	18	Closed	278.8	278.8	278.8	273.8	273.8	273.8
30-May	0	10,000	2,075	7,925	74.6	18	18	18	Closed	278.8	278.8	278.8	273.8	273.8	273.8
31-May	0	9,560	2,075	7,485	75.5	18	18	18	Closed	278.8	278.8	278.8	273.8	273.8	273.8
1-Jun	0	9,140	2,050	7,090	77.6	18	18	18	Closed	278.7	278.7	278.7	273.8	273.8	273.8
2-Jun	0	8,770	2,050	6,720	79.5	18	18	18	Closed	278.7	278.7	278.7	273.8	273.8	273.8
3-Jun	0	8,430	2,050	6,380	79.0	18	18	18	Closed	278.7	278.7	278.7	273.8	273.8	273.8
4-Jun	0	8,270	2,050	6,220	76.7	18	18	18	Closed	278.7	278.7	278.7	273.8	273.8	273.8
5-Jun	0	8,290	2,050	6,240	74.8	18	18	18	Closed	278.7	278.7	278.7	273.8	273.8	273.8
6-Jun	0	7,510	2,000	5,510	73.6	18	18	18	Closed	278.7	278.7	278.7	273.8	273.8	273.8

Table 3. Summary of Surface Water Elevations Recorded during Operation of the York Haven Fishway in 2023

Date	River Flow (cfs)	Elevation (ft)																				
		Head Pond			Tailwater			Inside Fishway			Inside Weir			Above Counting Room			Below Fixed Wheel Gate			Counting Room		
		Avg.	Min.	Max.	Avg	Min.	Max.	Avg	Min.	Max.	Avg	Min.	Max.	Avg	Min.	Max.	Avg	Min.	Max.	Avg	Min.	Max.
25-Apr	21,200	279.1	279.0	279.1	273.8	273.8	273.8	274.3	274.3	274.3	277.4	277.4	277.4	278.2	278.2	278.2	277.2	277.2	277.2	278.1	278.0	278.1
26-Apr	21,900	279.1	279.0	279.1	273.8	273.8	273.8	274.3	274.3	274.3	277.4	277.3	277.4	278.2	278.2	278.3	277.2	277.2	277.3	278.1	278.1	278.2
27-Apr	25,000	279.1	279.0	279.1	273.5	273.5	273.5	274.0	274.0	274.0	277.4	277.4	277.4	278.5	278.4	278.5	277.3	277.3	277.3	278.2	278.1	278.4
28-Apr	25,400	279.1	279.0	279.1	273.6	273.5	273.7	274.1	274.0	274.2	277.7	277.6	277.7	279.0	278.9	279.0	277.3	277.3	277.5	278.6	278.3	278.7
29-Apr	24,800	279.1	279.1	279.1	274.2	274.2	274.2	274.7	274.7	274.7	277.5	277.5	277.5	278.7	278.7	278.7	277.3	277.3	277.3	278.5	278.5	278.5
30-Apr	36,500	279.3	279.1	279.5	274.3	274.2	274.5	274.8	274.7	275.0	277.7	277.7	277.7	279.1	279.0	279.3	277.5	277.5	277.5	279.0	279.0	279.1
1-May	101,000	281.3	280.8	281.7	277.8	277.0	278.5	277.9	277.0	279.0	278.1	277.5	279.0	280.9	280.5	281.3	278.8	278.5	279.3	280.8	280.3	281.0
2-May	159,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3-May	152,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-May	121,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-May	92,500	281.3	280.8	281.7	277.8	277.0	278.5	278.1	278.0	278.3	279.0	280.9	281.2	281.1	280.9	281.2	279.0	278.9	279.6	280.9	280.9	280.9
6-May	75,600	281.0	281.0	281.0	276.9	276.9	276.9	277.4	277.4	277.4	278.5	278.5	278.5	280.6	280.6	280.6	278.2	278.2	278.2	280.5	280.5	280.5
7-May	65,700	280.7	280.6	280.7	276.4	276.3	276.4	277.1	277.0	277.1	278.3	278.2	278.3	280.5	280.4	280.5	278.1	278.0	278.1	280.2	280.2	280.2
8-May	58,200	280.2	280.2	280.2	275.8	275.8	275.8	276.3	276.3	276.3	278.3	278.3	278.3	280.2	280.1	280.3	277.9	277.8	278.0	280.0	280.0	280.2
9-May	53,100	280.2	280.2	280.2	275.3	275.3	275.3	276.1	276.1	276.1	278.0	278.0	278.0	280.0	280.0	280.0	277.7	277.7	277.7	280.0	280.0	280.0
10-May	48,700	280.2	280.2	280.2	275.3	275.3	275.3	275.8	275.5	275.8	277.8	277.8	277.8	280.0	280.0	280.0	277.5	277.5	277.5	279.7	279.5	279.8
11-May	43,500	280.0	280.0	280.0	275.0	275.0	275.0	275.5	275.5	275.5	278.0	278.0	278.0	279.8	279.8	279.8	277.5	277.5	277.5	279.5	279.5	279.5
12-May	37,300	280.0	280.0	280.0	274.8	274.8	274.8	275.3	275.3	275.3	277.8	277.8	277.8	279.5	279.5	279.5	277.5	277.5	277.5	279.3	279.3	279.3
13-May	32,700	279.7	279.7	279.7	274.7	274.7	274.7	275.2	275.2	275.2	277.5	277.5	277.5	279.3	279.3	279.3	277.3	277.3	277.3	279.1	279.1	279.2
14-May	29,400	279.6	279.6	279.6	274.5	274.5	274.5	275.0	275.0	275.0	277.5	277.5	277.5	279.1	279.1	279.2	277.2	277.2	277.3	278.9	278.9	279.0
15-May	26,700	279.3	279.3	279.3	274.5	274.5	274.5	275.0	275.0	275.0	277.5	277.5	277.5	279.0	279.0	279.0	277.3	277.3	277.3	278.8	278.8	278.8
16-May	24,100	279.3	279.3	279.3	274.4	274.4	274.5	274.9	274.9	275.0	277.4	277.4	277.4	279.0	279.0	279.0	277.3	277.3	277.3	278.5	278.5	278.5
17-May	22,000	279.1	279.1	279.1	274.3	274.3	274.3	274.8	274.8	274.8	277.4	277.4	277.4	278.8	278.8	278.8	277.0	277.0	277.0	278.4	278.4	278.4
18-May	19,800	279.1	279.1	279.1	274.2	274.0	274.3	274.5	274.5	274.8	277.3	277.3	277.3	278.8	278.6	279.0	277.2	277.0	277.3	278.4	278.3	278.5
19-May	18,300	278.8	278.8	278.8	274.0	274.0	274.0	274.5	274.5	274.5	277.3	277.3	277.3	278.5	278.5	278.5	277.0	277.0	277.0	278.3	278.1	278.4
20-May	17,300	278.8	278.8	278.8	273.8	273.8	273.9	274.3	274.3	274.4	277.3	277.3	277.3	278.4	278.4	278.5	277.0	277.0	277.0	278.1	278.1	278.1
21-May	16,100	278.8	278.8	278.8	273.7	273.7	273.7	274.3	274.3	274.3	277.2	277.2	277.3	278.4	278.4	278.4	277.0	277.0	277.0	278.1	278.1	278.1
22-May	15,100	278.8	278.8	279.0	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.2	278.2	278.2	277.0	277.0	277.0	278.0	278.0	278.1
23-May	14,300	278.8	278.8	278.6	273.5	273.5	273.5	274.1	274.1	274.1	277.0	277.0	277.0	278.3	278.3	278.3	276.8	276.8	276.8	278.1	278.1	278.2
24-May	13,800	278.8	278.8	278.9	274.0	274.0	274.0	274.5	274.5	274.5	277.1	277.0	277.1	278.2	278.2	278.2	277.1	277.0	277.1	278.1	278.1	278.1
25-May	13,000	278.8	278.8	278.8	273.5	273.5	273.5	274.0	274.0	274.0	277.0	277.0	277.0	278.3	278.3	278.3	276.8	276.8	276.8	277.9	277.9	277.9
26-May	12,300	278.8	278.8	278.8	273.6	273.6	273.6	274.1	274.1	274.1	277.2	277.2	277.2	278.3	278.3	278.3	276.8	276.8	276.8	277.9	277.9	277.9
27-May	11,800	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.1	278.1	278.1	276.8	276.8	276.8	277.9	277.8	278.0
28-May	11,200	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.3	278.3	278.3	276.8	276.8	276.8	278.0	278.0	278.0
29-May	10,500	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.3	278.3	278.3	276.8	276.8	276.8	277.9	277.9	277.9
30-May	10,000	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.1	278.1	278.1	276.8	276.8	276.8	277.9	277.9	278.0
31-May	9,560	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.1	278.1	278.1	276.8	276.8	276.8	278.0	278.0	278.0
1-Jun	9,140	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.2	278.2	278.2	276.9	276.9	276.9	278.0	278.0	278.0
2-Jun	8,770	278.8	278.8	278.8	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.2	278.2	278.2	276.8	276.8	276.8	278.0	278.0	278.0
3-Jun	8,430	278.7	278.7	278.7	273.9	273.9	273.9	274.4	274.4	274.4	277.0	277.0	277.0	278.2	278.2	278.3	276.8	276.8	276.8	278.1	278.1	278.1
4-Jun	8,270	278.7	278.7	278.7	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.3	278.3	278.3	276.8	276.8	276.8	278.1	278.0	278.1
5-Jun	8,290	278.7	278.7	278.7	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.4	278.4	278.4	276.8	276.8	276.8	278.1	278.1	278.1
6-Jun	7,510	278.7	278.7	278.7	273.8	273.8	273.8	274.3	274.3	274.3	277.0	277.0	277.0	278.3	278.3	278.3	276.8	276.8	276.8	278.0	278.0	278.1

Table 4. Hourly Summary of American Shad Passage through the Serpentine Vertical Notch Fish Ladder at the York Haven Hydroelectric Project in 2023

Date	25-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr	1-May	2-May	3-May
Observation Time (Start)	0800	1400	0800	0800	0800	0800	0800	-	-
Observation Time (End)	1600	1600	1600	1600	1600	1600	1600	-	-

Military Time (Hours)

0800 - 0859	0	0	0	2	0	0	0	-	-
0900 - 0959	0	0	0	0	0	0	0	-	-
1000 - 1059	0	0	0	0	0	0	0	-	-
1100 - 1159	0	0	0	0	0	0	0	-	-
1200 - 1259	0	0	0	0	0	0	0	-	-
1300 - 1359	0	0	0	0	0	0	0	-	-
1400 - 1459	0	0	0	0	0	0	0	-	-
1500 - 1559	0	0	0	0	0	0	0	-	-
Total	0	0	0	2	0	0	0	-	-

Date	4-May	5-May	6-May	7-May	8-May	9-May	10-May	11-May	12-May
Observation Time (Start)	-	1400	0800	0800	0800	0800	0800	0800	0800
Observation Time (End)	-	1600	1600	1600	1600	1600	1600	1600	1600

Military Time (Hours)

0800 - 0859	-	0	0	16	0	0	0	0	0
0900 - 0959	-	0	0	12	0	0	0	0	0
1000 - 1059	-	0	2	6	0	0	0	0	0
1100 - 1159	-	0	5	2	0	2	0	0	0
1200 - 1259	-	0	6	0	0	0	0	0	0
1300 - 1359	-	0	0	0	4	0	0	0	0
1400 - 1459	-	0	2	2	4	0	0	0	0
1500 - 1559	-	0	0	1	1	0	0	0	0
Total	-	0	15	39	9	2	0	0	0

Date	13-May	14-May	15-May	16-May	17-May	18-May	19-May	20-May	21-May
Observation Time (Start)	0800	1400	0800	0800	0800	0800	0800	0800	0800
Observation Time (End)	1600	1600	1600	1600	1600	1600	1600	1600	1600

Military Time (Hours)

0800 - 0859	2	0	0	0	0	0	0	0	0
0900 - 0959	0	0	0	0	0	0	0	0	0
1000 - 1059	0	0	0	0	0	0	0	0	0
1100 - 1159	0	0	0	0	0	0	0	0	0
1200 - 1259	0	0	0	0	0	0	0	0	0
1300 - 1359	0	0	0	0	0	0	0	0	0
1400 - 1459	0	0	0	0	0	0	0	0	0
1500 - 1559	0	0	0	0	0	0	0	0	0
Total	2	0	0	0	0	0	0	0	0

Date	22-May	23-May	24-May	25-May	26-May	27-May	28-May	29-May	30-May
Observation Time (Start)	0800	1400	0800	0800	0800	0800	0800	0800	0800
Observation Time (End)	1600	1600	1600	1600	1600	1600	1600	1600	1600

Military Time (Hours)

0800 - 0859	0	0	0	0	0	0	0	0	0
0900 - 0959	0	0	0	0	0	0	0	0	0
1000 - 1059	0	0	0	0	0	0	0	0	0
1100 - 1159	0	0	0	0	0	0	0	0	0
1200 - 1259	0	0	0	0	0	0	0	0	0
1300 - 1359	0	0	0	0	0	0	0	0	0
1400 - 1459	0	0	0	0	0	0	0	0	0
1500 - 1559	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0

Date	31-May	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun	Total	%
Observation Time (Start)	0800	0800	0800	0800	0800	0800	0800		
Observation Time (End)	1600	1600	1600	1600	1600	1600	1600		

Military Time (Hours)

0800 - 0859	0	0	0	0	0	0	0	20	29.0%
0900 - 0959	0	0	0	0	0	0	0	12	17.4%
1000 - 1059	0	0	0	0	0	0	0	8	11.6%
1100 - 1159	0	0	0	0	0	0	0	9	13.0%
1200 - 1259	0	0	0	0	0	0	0	6	8.7%
1300 - 1359	0	0	0	0	0	0	0	4	5.8%
1400 - 1459	0	0	0	0	0	0	0	8	11.6%
1500 - 1559	0	0	0	0	0	0	0	2	2.9%
Total	0	0	0	0	0	0	0	69	100.0%

FIGURES

Figure 1. General Layout of the York Haven Hydroelectric Project Showing the Location of the Fishway and Canal Lock Boat Ramp

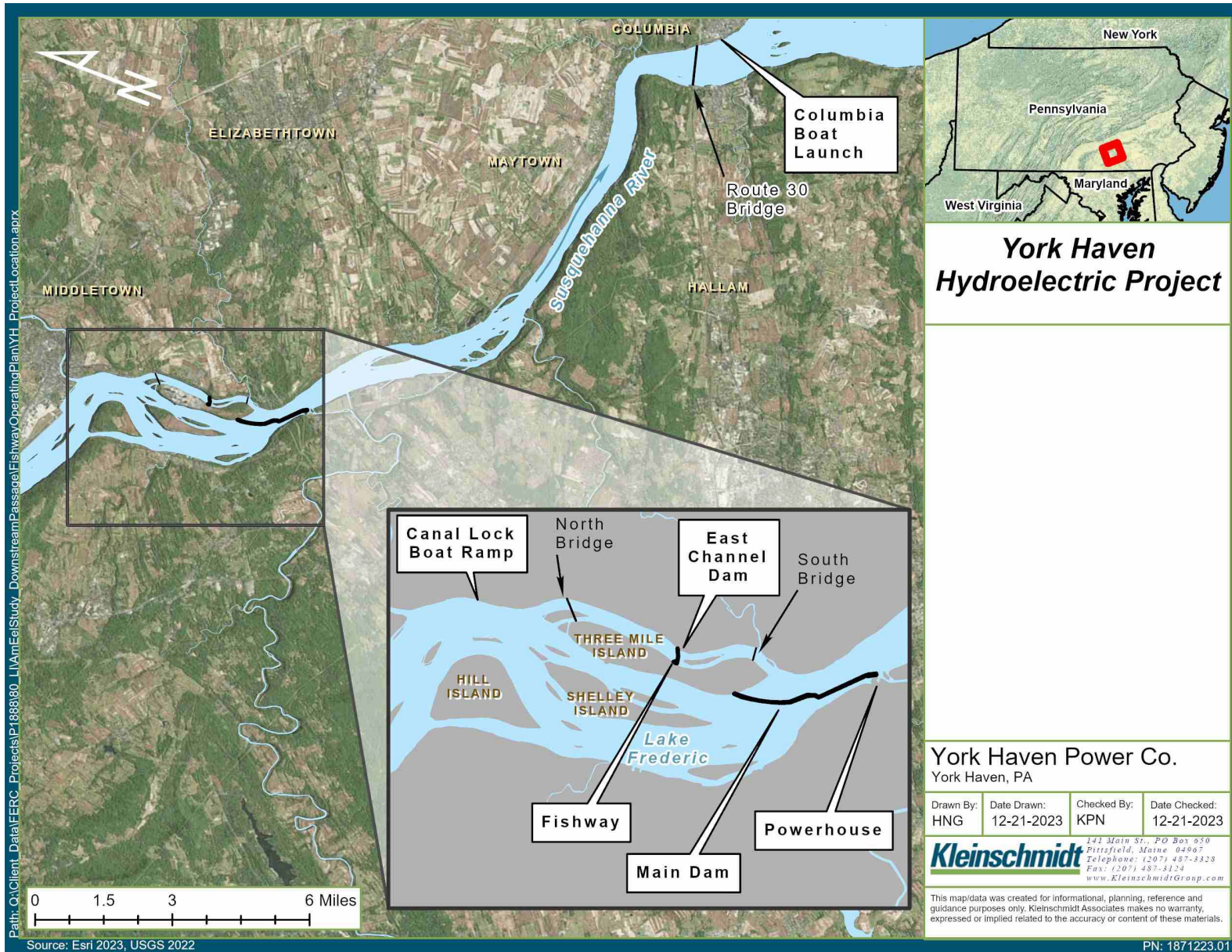


Figure 1a. Location of Four Lower Susquehanna River Hydroelectric Projects and the Columbia Boat Ramp

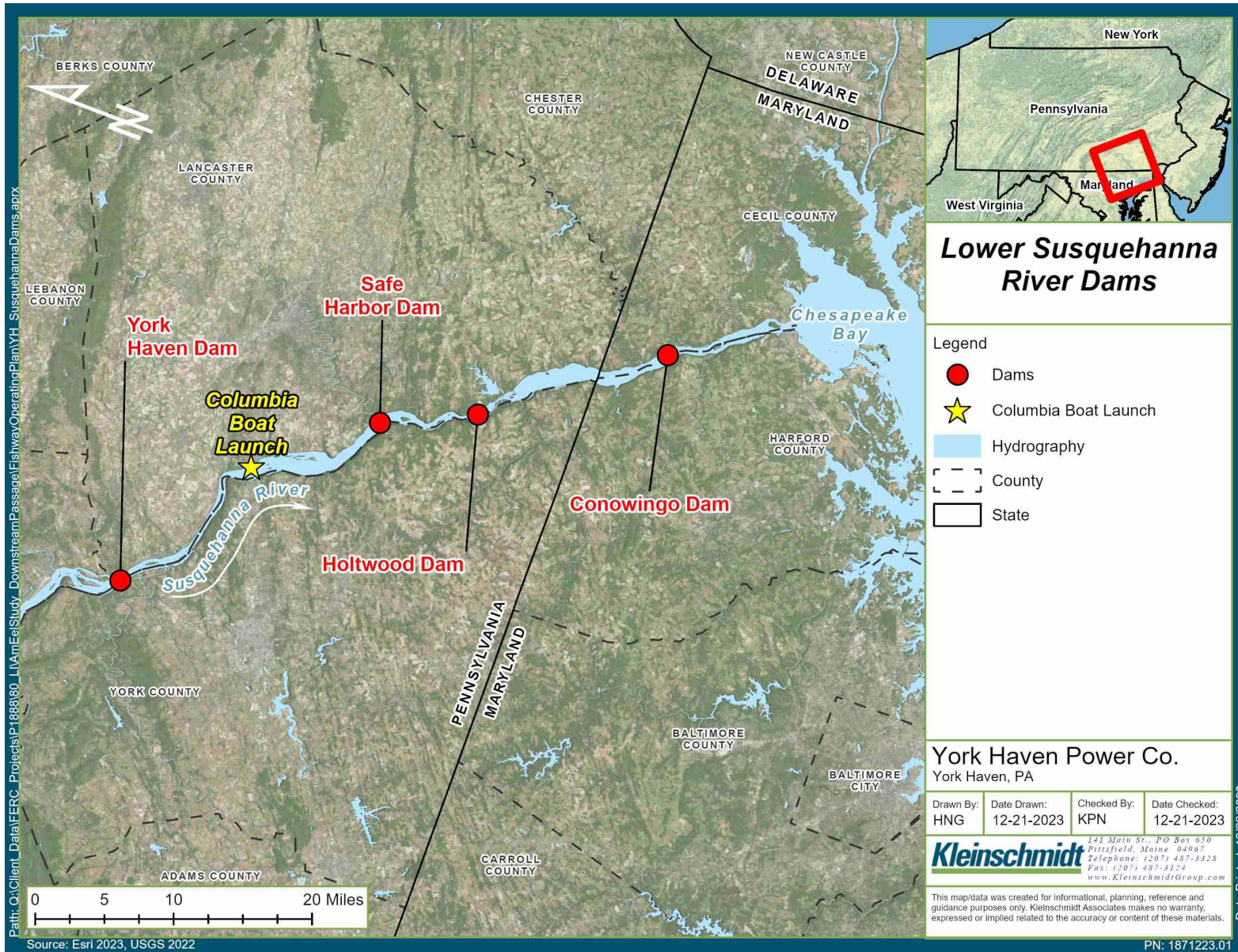


Figure 2. General Arrangement - York Haven Fishway

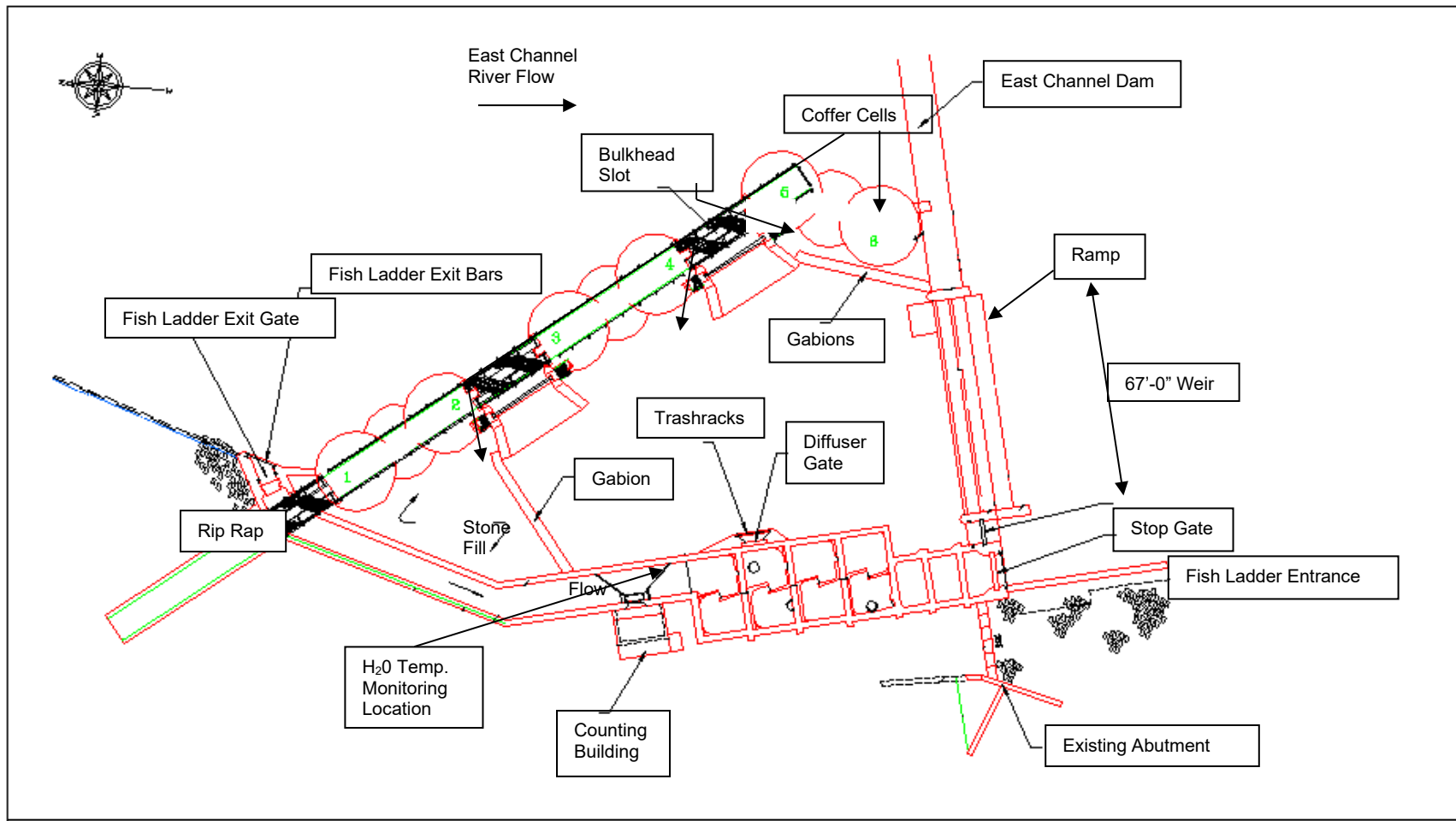


Figure 3. Plot of River Flow (x 1000 cfs) at the USGS Harrisburg Station (01570500) and Average Daily Water Temperature (F) at the York Haven East Channel Fishway in Spring 2023 and 23-Year Average Flow Values (2000-2022)

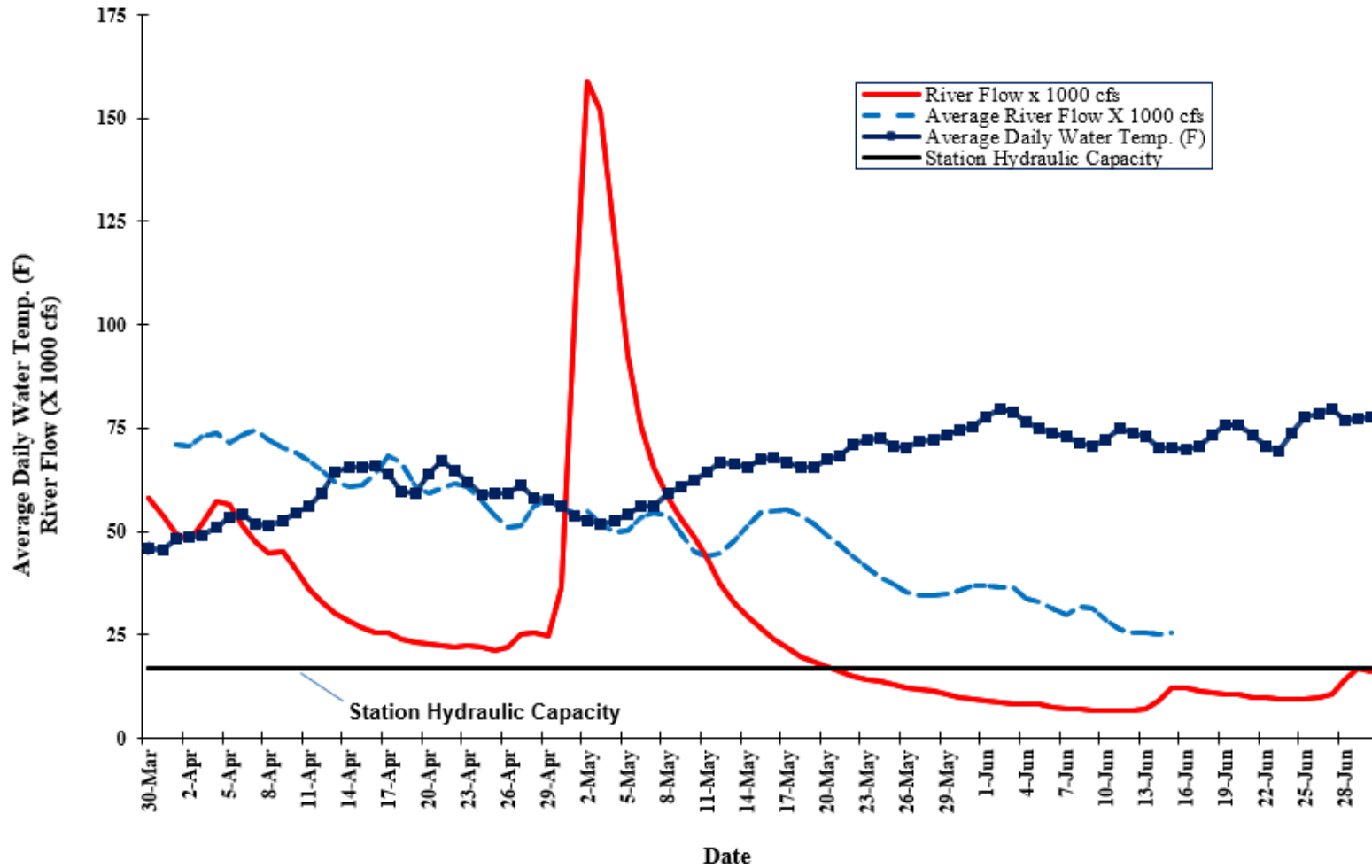


Figure 4. Plot of River Flow (x 1000 cfs) and East Channel Flow (x 1000 cfs) in Relation to the Daily American Shad Passage at the York Haven Fishway in Spring 2023

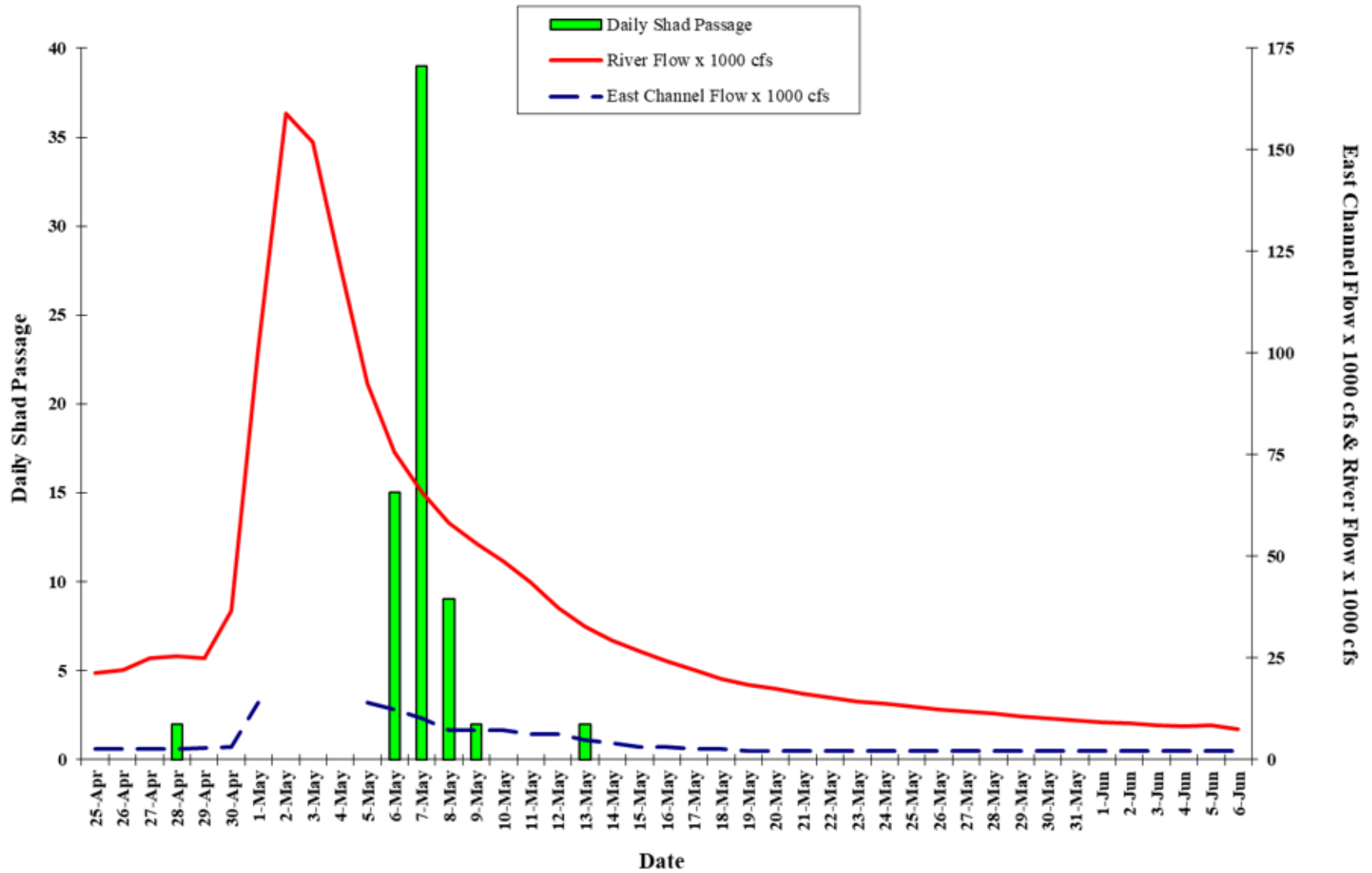


Figure 5. Plot of River Flow (cfs) at the USGS Harrisburg Station (#01570500) and Average Daily Water Temperature (F) at the York Haven East Channel Fishway, March 31 to December 15, 2023

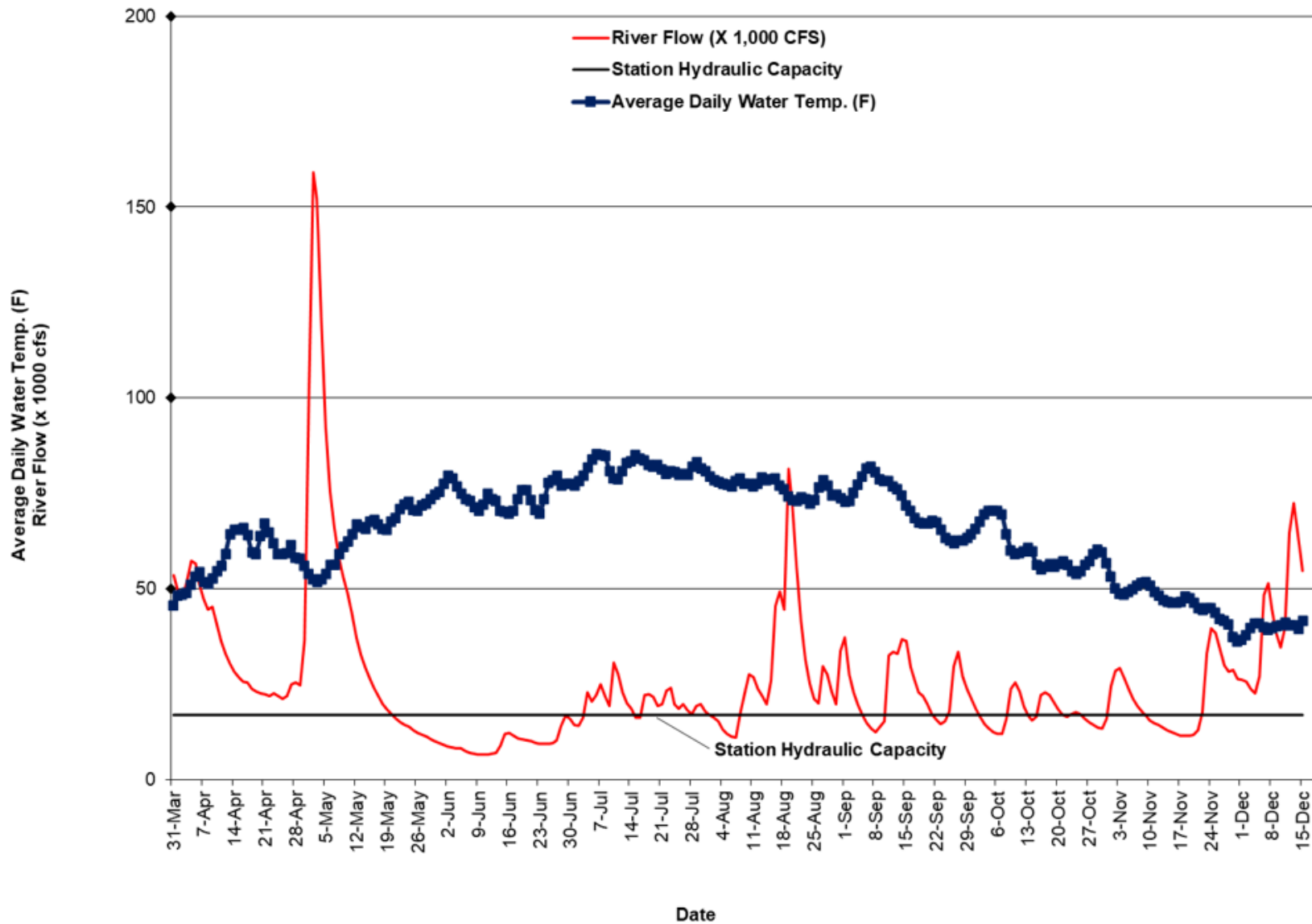


Figure 6. Plot of River Flow (cfs) at the USGS Harrisburg Station (#01570500) and Average Daily Water Temperature (F) in the Headrace of the York Haven Power Station, May 1 to June 30, 2023

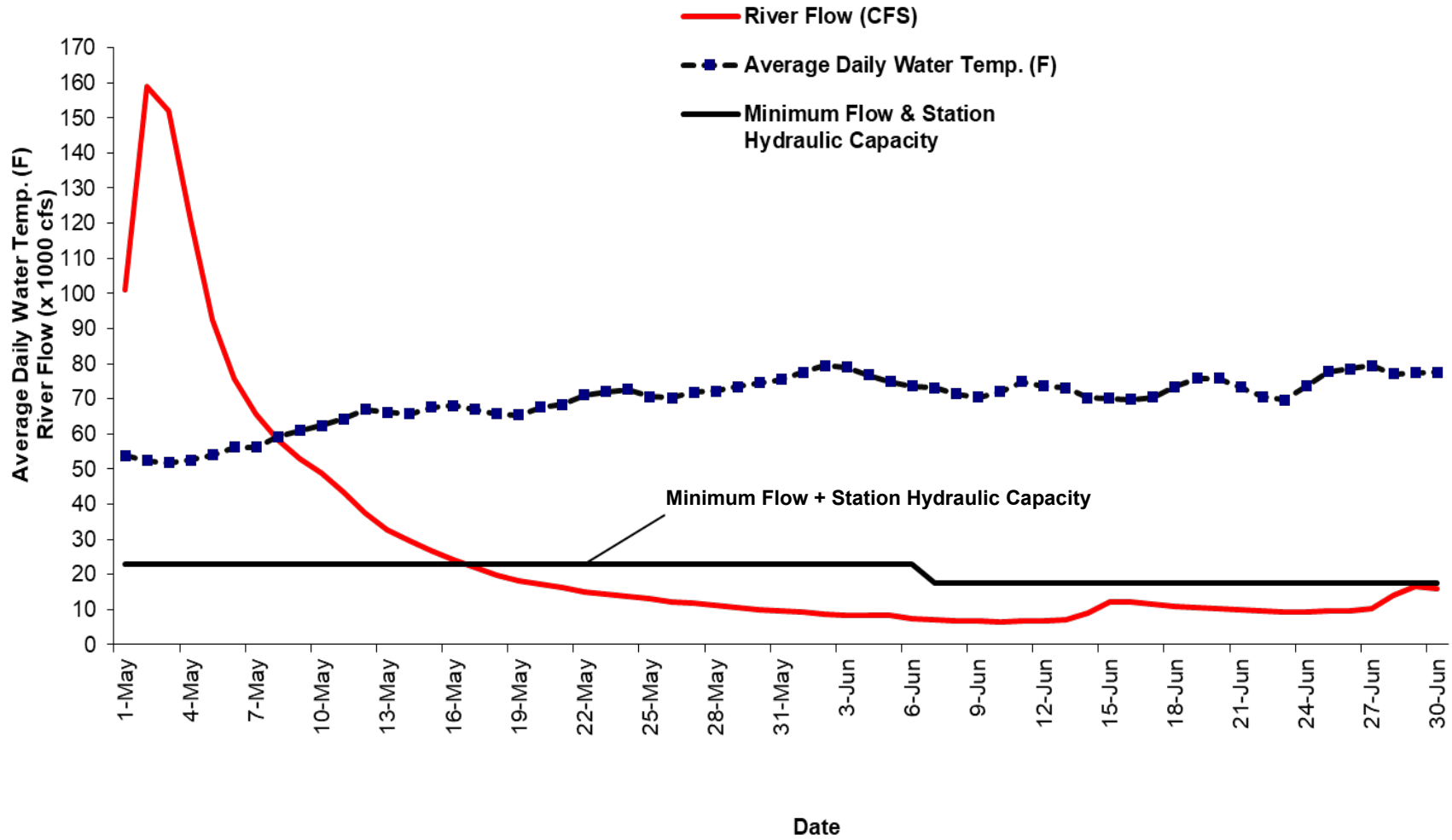


Figure 7 York Haven Sluice Gate Operation, May 1 to June 30, 2023

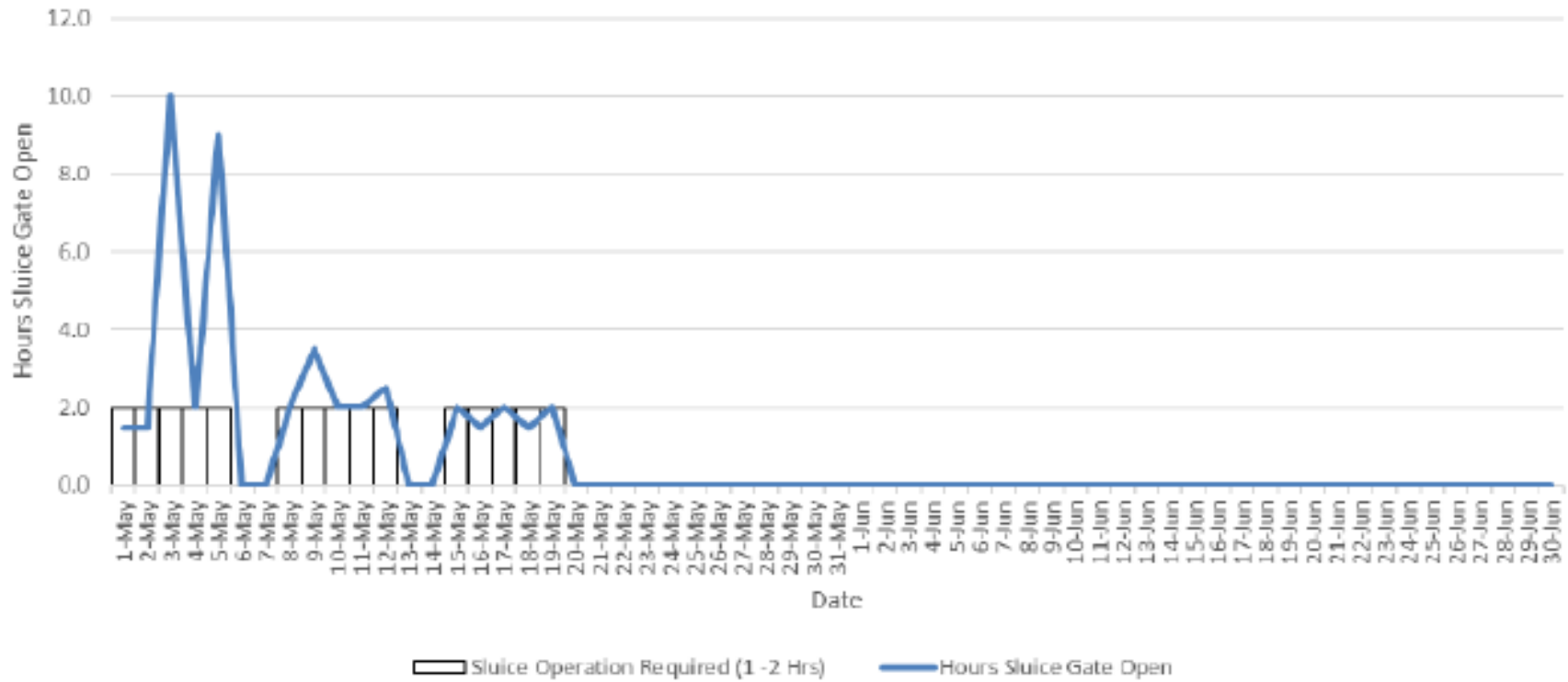


Figure 8. Plot of River Flow (cfs) at the USGS Harrisburg Station (#01570500) and Average Daily Water Temperature (F) at the York Haven East Channel Fishway, October 1 to November 30, 2023 and 23-year Average Flow Values (2000-2022)

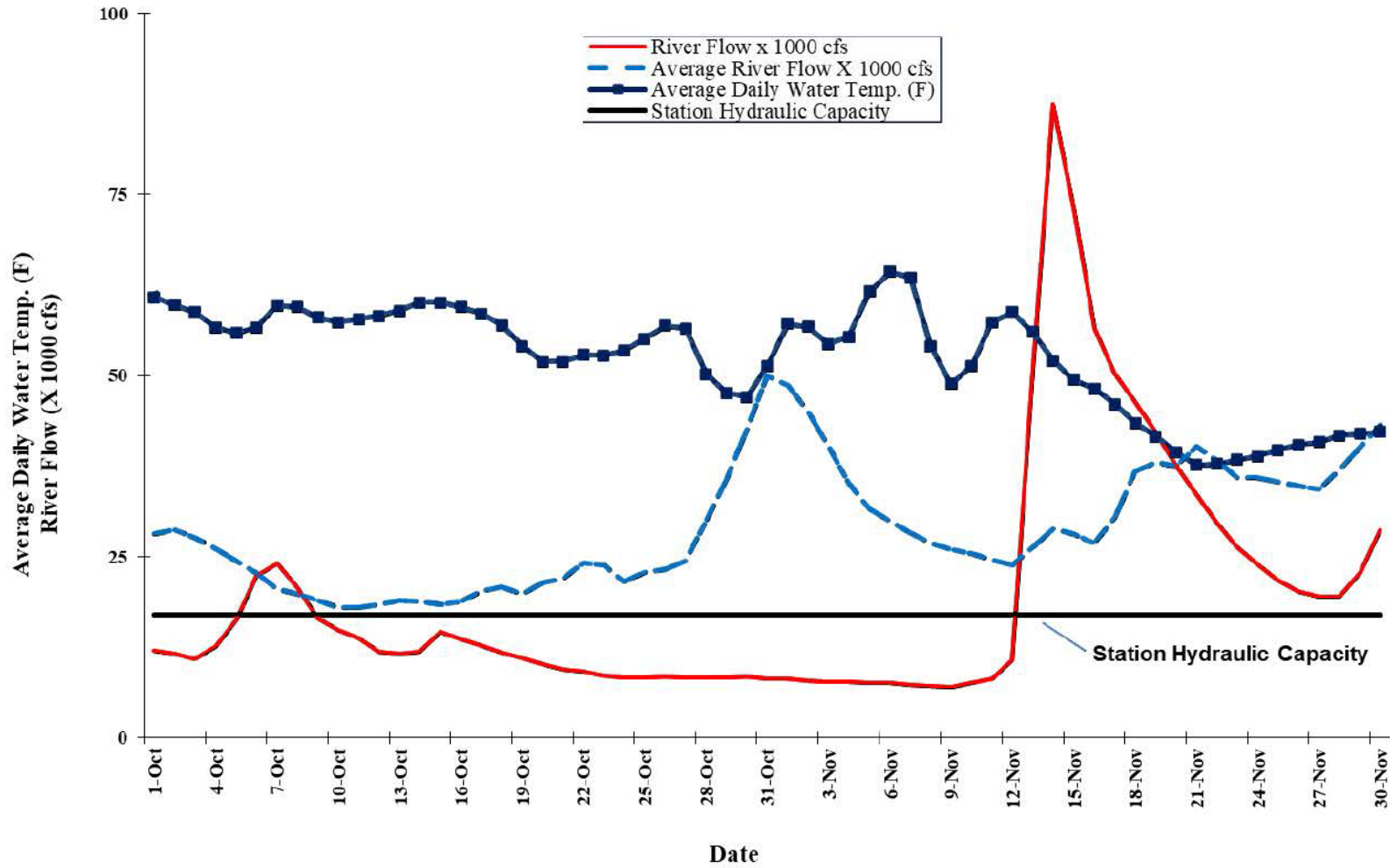
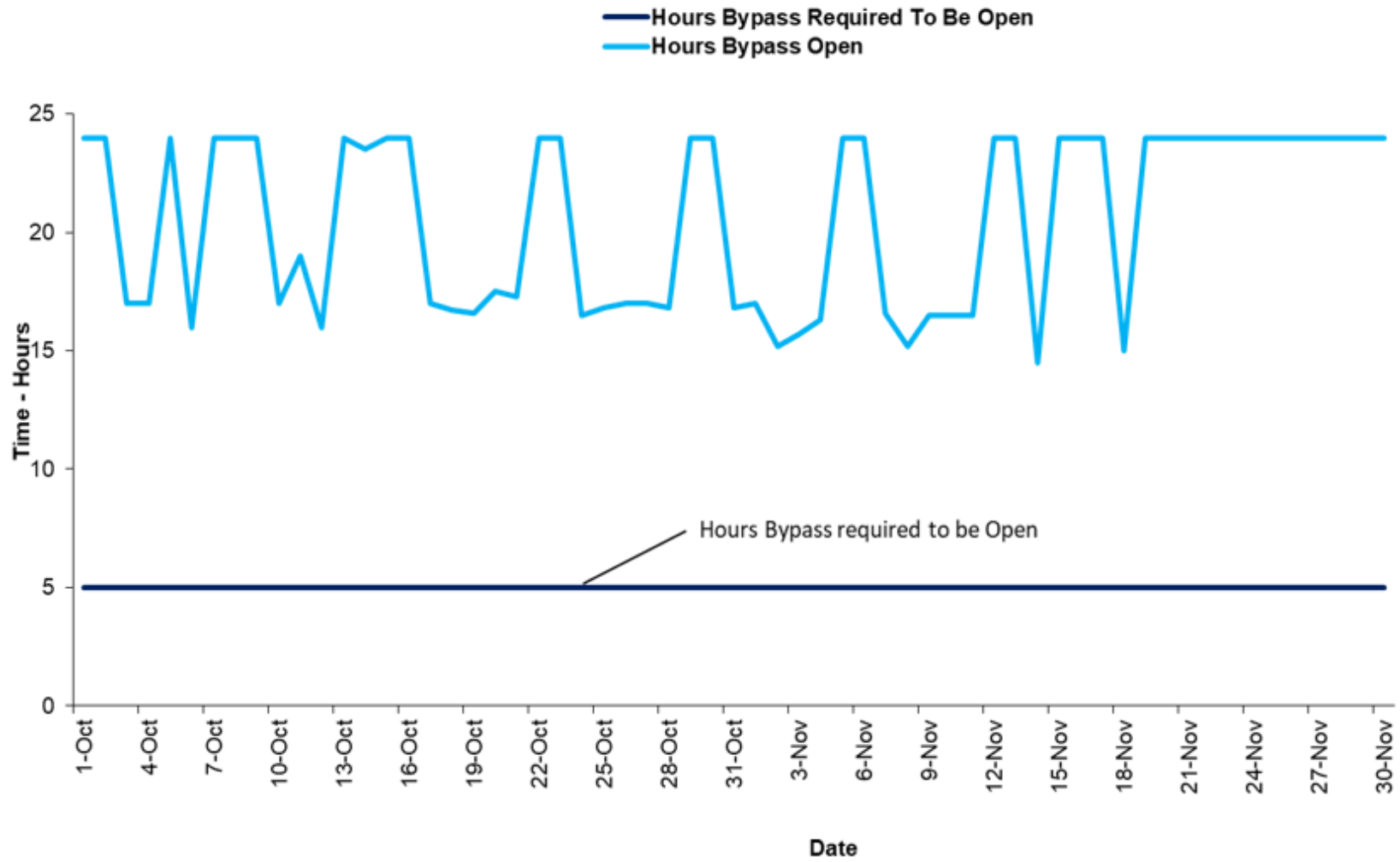


Figure 9. York Haven Sluice Gate Operation, October 1 to November 30, 2023



APPENDIX I

Consultation Record

From: [Eyler, Sheila](#)
To: [Joyce Foster](#); [Josh Tryniewski](#); [Aaron Henning](#); [Miller, Jeremy](#); [Ron Eberts](#); [McCorkle, Richard](#); [Rob Bourdon](#); [Zollweg-Horan, Emily C \(DEC\)](#); shawn.seaman@maryland.gov; [Niewinski, Brian](#)
Cc: [Benjamin Lenz](#); [Jody Smet](#); [Tom O'Connor](#); [Matthew Pyle](#); [Chris Frese](#)
Subject: Re: [EXTERNAL] York Haven (FERC No. 1888) - ECF Manned Operations
Date: Tuesday, June 6, 2023 11:58:50 AM
Attachments: [image001.png](#)

Hi Joyce,

Thank you for your proposal.

After consulting with the other resource agencies (PFBC, PADEP, MDNR, NYSDEC) the resource agencies support YHPC's proposal to end fish counting at the East Channel Fishway at the end of the day today (6/6/2023).

Sheila Eyler
U.S. Fish and Wildlife Service
Mid-Atlantic Fish & Wildlife Conservation Office
717-387-2117

From: Joyce Foster <joyce.foster@eaglecreekre.com>
Sent: Monday, June 5, 2023 5:14 PM
To: Tryniewski, Joshua <jtryniewski@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>; Brian Niewinski <bniewinski@pa.gov>
Cc: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>; Jody Smet <Jody.Smet@eaglecreekre.com>; Tom O'Connor <Tom.OConnor@eaglecreekre.com>; Matthew Pyle <Matthew.Pyle@eaglecreekre.com>; Chris Frese <Chris.Frese@KleinschmidtGroup.com>
Subject: [EXTERNAL] York Haven (FERC No. 1888) - ECF Manned Operations

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good afternoon,

Since upstream trap and transport of American Shad and River Herring will end at Conowingo tomorrow, YHPC is proposing to stop counting fish at the end of the day tomorrow (June 6, 2023). Below is a summary of information used to develop YHPC's rationale/plan to stop counting fish the afternoon of June 6 at the ECF.

Water temperature was 75.5F yesterday.

- May 13 was the last date that an American Shad passed the ECF.
- Sixty-nine American Shad passed the ECF between April 25 and May 13.
- The last transport and release occurred on May 31.

Based on the above information, we would like your support/approval to stop counting fish at the ECF the afternoon of June 6 at 4 pm and operate for resident fish passage.

Please let us know if you have any questions and/or concerns.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Joyce Foster

Sent: Monday, June 5, 2023 4:24 PM

To: Jody Smet <Jody.Smet@eaglecreekre.com>; Tryniniwski, Joshua <jtrynini@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update June 1-4, 2023

My apologies, we are behind.

A total of 126 fish of 7 species passed the ECF on Thursday, 1 June. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 74.0F. Average daily river flow at the Harrisburg gage was 9,140 cfs.

A total of 105 fish of 7 species passed the ECF on Friday, 2 June. No American shad passed the ECF on Friday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 77.5F. Average daily

river flow at the Harrisburg gage was 8,770 cfs.

A total of 114 fish of 8 species passed the ECF on Saturday, 3 June. No American shad passed the ECF on Saturday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 76.5F. Average daily river flow at the Harrisburg gage was 8,430 cfs.

A total of 140 fish of 8 species passed the ECF on Sunday, 4 June. No American shad passed the ECF on Sunday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 75.5F. Average daily river flow at the Harrisburg gage was 8,270 cfs.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Jody Smet <Jody.Smet@eaglecreekre.com>

Sent: Thursday, June 1, 2023 8:46 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 31, 2023

A total of 127 fish of 8 species passed the ECF on Wednesday, 31 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 73.0F. Average daily river flow at the Harrisburg gage was 9,560 cfs.

Because Conowingo is planning to operate this weekend we will also plan to continue counting at

the ECF.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 31, 2023 11:16 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 30, 2023

A total of 135 fish of 6 species passed the ECF on Tuesday, 30 May. No American shad passed the ECF on Tuesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 73.0F. Average daily river flow at the Harrisburg gage was 10,000 cfs.

From: Jody Smet

Sent: Wednesday, May 31, 2023 11:07 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 26-29, 2023

Forgive me, I'm behind!

As of Friday, 26 May a total of 9,840 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,288 American Shad have been collected at the West lift and 5,552 American Shad have been collected at the East lift. Some 32 American Shad were collected at the West lift and 2

American Shad were collected at the East Lift. To date, a total of 9,244 shad have been transported from the Conowingo lifts, 1,812 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 386 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 383 have been collected at the East Lift. Water temperature was 73.0F. Average daily river flow at the Marietta gage was 14,200 cfs.

As of Saturday, 27 May a total of 9,855 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,291 American Shad have been collected at the West lift and 5,564 American Shad have been collected at the East lift. Some 3 American Shad were collected at the West lift and 12 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 386 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 383 have been collected at the East Lift. Water temperature was 73.0F. Average daily river flow at the Marietta gage was 13,500 cfs.

As of Sunday, 28 May a total of 9,906 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,325 American Shad have been collected at the West lift and 5,581 American Shad have been collected at the East lift. Some 34 American Shad were collected at the West lift and 17 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 392 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 389 have been collected at the East Lift. Water temperature was 72.9F. Average daily river flow at the Marietta gage was 12,800 cfs.

As of Monday, 29 May a total of 9,937 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,352 American Shad have been collected at the West lift and 5,585 American Shad have been collected at the East lift. Some 27 American Shad were collected at the West lift and 4 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 394 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 391 have been collected at the East Lift. Water temperature was 69.3F. Average daily river flow at the Marietta gage was 12,100 cfs.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 26, 2023 9:38 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 23-25, 2023

A total of 591 fish of 7 species passed the ECF on Tuesday, 23 May. No American shad passed the ECF on Tuesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 71.5F. Average daily river flow at the Harrisburg gage was 14,300 cfs.

A total of 362 fish of 8 species passed the ECF on Wednesday, 24 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 70.0F. Average daily river flow at the Harrisburg gage was 13,800cfs.

A total of 120 fish of 9 species passed the ECF on Thursday, 25 May. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 71.0F. Average daily river flow at the Harrisburg gage was 12,500 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Tuesday, May 23, 2023 8:10 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 22, 2023

A total of 591 fish of 8 species passed the ECF on Monday, 22 May. No American shad passed the ECF on Monday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 15,100 cfs.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 22, 2023 8:47 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 19-21, 2023

A total of 94 fish of 8 species passed the ECF on Friday, 19 May. No American shad passed the ECF on Friday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 65.5F. Average daily river flow at the Harrisburg gage was 18,300 cfs.

A total of 88 fish of 7 species passed the ECF on Saturday, 20 May. No American shad passed the ECF on Saturday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 66.5F. Average daily river flow at the Harrisburg gage was 17,300 cfs.

A total of 75 fish of 5 species passed the ECF on Sunday, 21 May. No American shad passed the ECF on Sunday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 16,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 19, 2023 6:31 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 18, 2023

A total of 167 fish of 7 species passed the ECF on Thursday, 18 May. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window varied was 12 inches. Average water temperature (bucket grab) was 66.0F. Average daily river flow at the Harrisburg gage was 19,800 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Thursday, May 18, 2023 7:58 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 17, 2023

A total of 187 fish of 8 species passed the ECF on Wednesday, 17 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window varied from 3 to 6 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 22,000 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 17, 2023 8:06 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 16, 2023

A total of 220 fish of 7 species passed the ECF on Tuesday, 16 May. No American shad passed the ECF on Tuesday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 68.0F. Average daily river flow at the Harrisburg gage was 24,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

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From: Jody Smet

Sent: Tuesday, May 16, 2023 8:08 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: RE: YHPC ECF Fish Passage Update May 15, 2023

A total of 144 fish of 8 species passed the ECF on Monday, 15 May. No American shad passed the ECF on Monday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 67.0F. Average daily river flow at the Harrisburg gage was 26,700 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 15, 2023 8:27 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz

<benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 12-14, 2023

A total of 302 fish of 7 species passed the ECF on Sunday, 14 May. No American shad passed the ECF on Sunday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window ranged 16 to 12 inches. Average water temperature (bucket grab) was 65.0F. Average daily river flow at the Harrisburg gage was 29,400 cfs.

A total of 639 fish of 9 species passed the ECF on Saturday, 13 May. Two American shad passed the ECF on Saturday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 16 inches. Average water temperature (bucket grab) was 65.5F. Average daily river flow at the Harrisburg gage was 32,700 cfs.

A total of 510 fish of 9 species passed the ECF on Friday, 12 May. No American shad passed the ECF on Friday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 66.0F. Average daily river flow at the Harrisburg gage was 37,300 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 12, 2023 8:34 AM

To: Tryniewski, Joshua <jtrynnews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 10-11, 2023

A total of 956 fish of 8 species passed the ECF on Wednesday, 10 May. No American shad passed the ECF on Wednesday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 62.5F. Average daily river flows at the Harrisburg gage was 48,700 cfs.

A total of 838 fish of 8 species passed the ECF on Thursday, 11 May. No American shad passed the

ECF on Thursday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 63.5F. Average daily river flow at the Harrisburg gage was 43,500 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 3, 2023 8:17 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 2 May 2023

The East Channel Fishway was not staffed on 2 May but was set to allow volitional passage. Counting has temporarily been suspended at the ECF and is expected to resume later this week when river flows fall below 150,000 cfs. Average river flows at the Harrisburg gage on Tuesday, 2 May was 159,000 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Tuesday, May 2, 2023 8:19 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard

<richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 1 May 2023

No American Shad were observed passing East Channel Fishway on Monday, 1 May (See Attached). A total of 7 fish of 4 species passed the fishway. Surface water temperature (bucket grab) averaged 56.0F. **River flows are projected to exceed 150,000 cfs today and as a result, counting has temporarily been stopped and will resume later this week when flows fall below 150,000 cfs.**

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 1, 2023 6:28 AM

To: Tryniewski, Joshua <jtryniewski@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 30 April 2023

No American Shad were observed passing East Channel Fishway on Sunday, 30 April (See Attached). A total of 45 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 58.0F.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Sunday, April 30, 2023 7:43 PM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 27-29 April 2023

No American Shad were observed passing East Channel Fishway on Saturday, 29 April (See Attached). A total of 64 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 58.0F.

Two American Shad were observed passing East Channel Fishway on Friday, 28 April (See Attached). A total of 229 fish of 9 species passed the fishway. Surface water temperature (bucket grab) averaged 60.5F.

No American Shad were observed passing East Channel Fishway on Thursday, 27 April (See Attached). A total of 365 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 57.0F.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Thursday, April 27, 2023 9:28 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 25-26 April 2023

Agencies,

As agreed, Tuesday, 25 April was the first day the York Haven East Channel Fishway was staffed in 2023. No American Shad were observed passing the ECF on Tuesday (see attached). A total of 21 fish of species of 3 species passed the fishway. Surface water temperature (bucket grab) averaged 54.5F.

No American Shad were observed passing the ECF on Wednesday, 26 April (see attached). A total of 93 fish of species of 7 species passed the fishway. Surface water temperature (bucket grab) averaged 57.0F.

If there are other Agency POCs that should be copied on this email, please let me know.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: [Joyce Foster](#)
To: [Josh Tryniewski](#); [Aaron Henning](#); [Miller, Jeremy](#); [Ron Eberts](#); [McCorkle, Richard](#); [Rob Bourdon](#); [Zollweg-Horan, Emily C \(DEC\)](#); shawn.seaman@maryland.gov; [Eyler, Sheila](#); [Niewinski, Brian](#)
Cc: [Benjamin Lenz](#); [Jody Smet](#); [Tom O'Connor](#); [Matthew Pyle](#); [Chris Frese](#)
Subject: York Haven (FERC No. 1888) - ECF Manned Operations
Date: Monday, June 5, 2023 5:14:22 PM
Attachments: [image001.png](#)
Importance: High

Good afternoon,

Since upstream trap and transport of American Shad and River Herring will end at Conowingo tomorrow, YHPC is proposing to stop counting fish at the end of the day tomorrow (June 6, 2023). Below is a summary of information used to develop YHPC's rationale/plan to stop counting fish the afternoon of June 6 at the ECF.

- Water temperature was 75.5F yesterday.
- May 13 was the last date that an American Shad passed the ECF.
- Sixty-nine American Shad passed the ECF between April 25 and May 13.
- The last transport and release occurred on May 31.

Based on the above information, we would like your support/approval to stop counting fish at the ECF the afternoon of June 6 at 4 pm and operate for resident fish passage.

Please let us know if you have any questions and/or concerns.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Joyce Foster

Sent: Monday, June 5, 2023 4:24 PM

To: Jody Smet <Jody.Smet@eaglecreekre.com>; Tryniewski, Joshua <jtrynnews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update June 1-4, 2023

My apologies, we are behind.

A total of 126 fish of 7 species passed the ECF on Thursday, 1 June. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 74.0F. Average daily river flow at the Harrisburg gage was 9,140 cfs.

A total of 105 fish of 7 species passed the ECF on Friday, 2 June. No American shad passed the ECF on Friday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 77.5F. Average daily river flow at the Harrisburg gage was 8,770 cfs.

A total of 114 fish of 8 species passed the ECF on Saturday, 3 June. No American shad passed the ECF on Saturday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 76.5F. Average daily river flow at the Harrisburg gage was 8,430 cfs.

A total of 140 fish of 8 species passed the ECF on Sunday, 4 June. No American shad passed the ECF on Sunday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 75.5F. Average daily river flow at the Harrisburg gage was 8,270 cfs.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Jody Smet <Jody.Smet@eaglecreekre.com>

Sent: Thursday, June 1, 2023 8:46 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard

<richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 31, 2023

A total of 127 fish of 8 species passed the ECF on Wednesday, 31 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 73.0F. Average daily river flow at the Harrisburg gage was 9,560 cfs.

Because Conowingo is planning to operate this weekend we will also plan to continue counting at the ECF.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 31, 2023 11:16 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 30, 2023

A total of 135 fish of 6 species passed the ECF on Tuesday, 30 May. No American shad passed the ECF on Tuesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 73.0F. Average daily river flow at the Harrisburg gage was 10,000 cfs.

From: Jody Smet

Sent: Wednesday, May 31, 2023 11:07 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy

<jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 26-29, 2023

Forgive me, I'm behind!

As of Friday, 26 May a total of 9,840 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,288 American Shad have been collected at the West lift and 5,552 American Shad have been collected at the East lift. Some 32 American Shad were collected at the West lift and 2 American Shad were collected at the East Lift. To date, a total of 9,244 shad have been transported from the Conowingo lifts, 1,812 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 386 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 383 have been collected at the East Lift. Water temperature was 73.0F. Average daily river flow at the Marietta gage was 14,200 cfs.

As of Saturday, 27 May a total of 9,855 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,291 American Shad have been collected at the West lift and 5,564 American Shad have been collected at the East lift. Some 3 American Shad were collected at the West lift and 12 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 386 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 383 have been collected at the East Lift. Water temperature was 73.0F. Average daily river flow at the Marietta gage was 13,500 cfs.

As of Sunday, 28 May a total of 9,906 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,325 American Shad have been collected at the West lift and 5,581 American Shad have been collected at the East lift. Some 34 American Shad were collected at the West lift and 17 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 392 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 389 have been collected at the East Lift. Water temperature was 72.9F. Average daily river flow at the Marietta gage was 12,800 cfs.

As of Monday, 29 May a total of 9,937 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,352 American Shad have been collected at the West lift and 5,585 American Shad

have been collected at the East lift. Some 27 American Shad were collected at the West lift and 4 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 394 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 391 have been collected at the East Lift. Water temperature was 69.3F. Average daily river flow at the Marietta gage was 12,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 26, 2023 9:38 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 23-25, 2023

A total of 591 fish of 7 species passed the ECF on Tuesday, 23 May. No American shad passed the ECF on Tuesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 71.5F. Average daily river flow at the Harrisburg gage was 14,300 cfs.

A total of 362 fish of 8 species passed the ECF on Wednesday, 24 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 70.0F. Average daily river flow at the Harrisburg gage was 13,800cfs.

A total of 120 fish of 9 species passed the ECF on Thursday, 25 May. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 71.0F. Average daily river flow at the Harrisburg gage was 12,500 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Tuesday, May 23, 2023 8:10 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 22, 2023

A total of 591 fish of 8 species passed the ECF on Monday, 22 May. No American shad passed the ECF on Monday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 15,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 22, 2023 8:47 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz

<benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 19-21, 2023

A total of 94 fish of 8 species passed the ECF on Friday, 19 May. No American shad passed the ECF on Friday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 65.5F. Average daily river flow at the Harrisburg gage was 18,300 cfs.

A total of 88 fish of 7 species passed the ECF on Saturday, 20 May. No American shad passed the ECF on Saturday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 66.5F. Average daily river flow at the Harrisburg gage was 17,300 cfs.

A total of 75 fish of 5 species passed the ECF on Sunday, 21 May. No American shad passed the ECF on Sunday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 16,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 19, 2023 6:31 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 18, 2023

A total of 167 fish of 7 species passed the ECF on Thursday, 18 May. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window varied was 12 inches. Average water temperature (bucket grab) was 66.0F. Average daily river flow at the Harrisburg gage was 19,800 cfs.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs

Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Thursday, May 18, 2023 7:58 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 17, 2023

A total of 187 fish of 8 species passed the ECF on Wednesday, 17 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window varied from 3 to 6 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 22,000 cfs.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 17, 2023 8:06 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard'

<richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 16, 2023

A total of 220 fish of 7 species passed the ECF on Tuesday, 16 May. No American shad passed the ECF on Tuesday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 68.0F. Average daily river flow at the Harrisburg gage was 24,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Tuesday, May 16, 2023 8:08 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: RE: YHPC ECF Fish Passage Update May 15, 2023

A total of 144 fish of 8 species passed the ECF on Monday, 15 May. No American shad passed the ECF on Monday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 67.0F. Average daily river flow at the Harrisburg gage was 26,700 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 15, 2023 8:27 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 12-14, 2023

A total of 302 fish of 7 species passed the ECF on Sunday, 14 May. No American shad passed the ECF on Sunday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window ranged 16 to 12 inches. Average water temperature (bucket grab) was 65.0F. Average daily river flow at the Harrisburg gage was 29,400 cfs.

A total of 639 fish of 9 species passed the ECF on Saturday, 13 May. Two American shad passed the ECF on Saturday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 16 inches. Average water temperature (bucket grab) was 65.5F. Average daily river flow at the Harrisburg gage was 32,700 cfs.

A total of 510 fish of 9 species passed the ECF on Friday, 12 May. No American shad passed the ECF on Friday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 66.0F. Average daily river flow at the Harrisburg gage was 37,300 cfs.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 12, 2023 8:34 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan,

Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>
Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 10-11, 2023

A total of 956 fish of 8 species passed the ECF on Wednesday, 10 May. No American shad passed the ECF on Wednesday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 62.5F. Average daily river flows at the Harrisburg gage was 48,700 cfs.

A total of 838 fish of 8 species passed the ECF on Thursday, 11 May. No American shad passed the ECF on Thursday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 63.5F. Average daily river flow at the Harrisburg gage was 43,500 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 3, 2023 8:17 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 2 May 2023

The East Channel Fishway was not staffed on 2 May but was set to allow volitional passage. Counting has temporarily been suspended at the ECF and is expected to resume later this week when river flows fall below 150,000 cfs. Average river flows at the Harrisburg gage on Tuesday, 2 May was 159,000 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Tuesday, May 2, 2023 8:19 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 1 May 2023

No American Shad were observed passing East Channel Fishway on Monday, 1 May (See Attached). A total of 7 fish of 4 species passed the fishway. Surface water temperature (bucket grab) averaged 56.0F. **River flows are projected to exceed 150,000 cfs today and as a result, counting has temporarily been stopped and will resume later this week when flows fall below 150,000 cfs.**

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 1, 2023 6:28 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 30 April 2023

No American Shad were observed passing East Channel Fishway on Sunday, 30 April (See Attached). A total of 45 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 58.0F.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

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Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Sunday, April 30, 2023 7:43 PM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 27-29 April 2023

No American Shad were observed passing East Channel Fishway on Saturday, 29 April (See Attached). A total of 64 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 58.0F.

Two American Shad were observed passing East Channel Fishway on Friday, 28 April (See Attached). A total of 229 fish of 9 species passed the fishway. Surface water temperature (bucket grab) averaged 60.5F.

No American Shad were observed passing East Channel Fishway on Thursday, 27 April (See Attached). A total of 365 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 57.0F.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

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message in error, please notify sender immediately and delete this message from your system. If you are not the intended recipient, you must not use, disclose, distribute or copy any part of this message.

From: Jody Smet

Sent: Thursday, April 27, 2023 9:28 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 25-26 April 2023

Agencies,

As agreed, Tuesday, 25 April was the first day the York Haven East Channel Fishway was staffed in 2023. No American Shad were observed passing the ECF on Tuesday (see attached). A total of 21 fish of species of 3 species passed the fishway. Surface water temperature (bucket grab) averaged 54.5F.

No American Shad were observed passing the ECF on Wednesday, 26 April (see attached). A total of 93 fish of species of 7 species passed the fishway. Surface water temperature (bucket grab) averaged 57.0F.

If there are other Agency POCs that should be copied on this email, please let me know.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: [Joyce Foster](#)
To: [Eyler, Sheila](#); [Josh Tryniewski](#); [Aaron Henning](#); [Miller, Jeremy](#); [Ron Eberts](#); [McCorkle, Richard](#); [Rob Bourdon](#); [Zollweg-Horan, Emily C \(DEC\)](#); shawn.seaman@maryland.gov; [Niewinski, Brian](#)
Cc: [Benjamin Lenz](#); [Jody Smet](#); [Tom O'Connor](#); [Matthew Pyle](#); [Chris Frese](#)
Subject: RE: [EXTERNAL] York Haven (FERC No. 1888) - ECF Manned Operations
Date: Tuesday, June 6, 2023 12:10:33 PM
Attachments: [image001.png](#)

Thank you all for getting back to us so quickly. It is much appreciated.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Eyler, Sheila <sheila_eyler@fws.gov>

Sent: Tuesday, June 6, 2023 11:59 AM

To: Joyce Foster <joyce.foster@eaglecreekre.com>; Tryniewski, Joshua <jtryniewski@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <rebarts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Brian Niewinski <bniewinski@pa.gov>

Cc: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>; Jody Smet <Jody.Smet@eaglecreekre.com>; Tom O'Connor <Tom.OConnor@eaglecreekre.com>; Matthew Pyle <Matthew.Pyle@eaglecreekre.com>; Chris Frese <Chris.Frese@KleinschmidtGroup.com>

Subject: Re: [EXTERNAL] York Haven (FERC No. 1888) - ECF Manned Operations

[This email originated OUTSIDE of Eagle Creek. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email.]

Hi Joyce,

Thank you for your proposal.

After consulting with the other resource agencies (PFBC, PADEP, MDNR, NYSDEC) the resource agencies support YHPC's proposal to end fish counting at the East Channel Fishway at the end

of the day today (6/6/2023).

Sheila Eyler
U.S. Fish and Wildlife Service
Mid-Atlantic Fish & Wildlife Conservation Office
717-387-2117

From: Joyce Foster <joyce.foster@eaglecreekre.com>
Sent: Monday, June 5, 2023 5:14 PM
To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>; Brian Niewinski <bniewinski@pa.gov>
Cc: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>; Jody Smet <Jody.Smet@eaglecreekre.com>; Tom O'Connor <Tom.OConnor@eaglecreekre.com>; Matthew Pyle <Matthew.Pyle@eaglecreekre.com>; Chris Frese <Chris.Frese@KleinschmidtGroup.com>
Subject: [EXTERNAL] York Haven (FERC No. 1888) - ECF Manned Operations

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good afternoon,

Since upstream trap and transport of American Shad and River Herring will end at Conowingo tomorrow, YHPC is proposing to stop counting fish at the end of the day tomorrow (June 6, 2023). Below is a summary of information used to develop YHPC's rationale/plan to stop counting fish the afternoon of June 6 at the ECF.

- Water temperature was 75.5F yesterday.
- May 13 was the last date that an American Shad passed the ECF.
- Sixty-nine American Shad passed the ECF between April 25 and May 13.
- The last transport and release occurred on May 31.

Based on the above information, we would like your support/approval to stop counting fish at the ECF the afternoon of June 6 at 4 pm and operate for resident fish passage.

Please let us know if you have any questions and/or concerns.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Joyce Foster

Sent: Monday, June 5, 2023 4:24 PM

To: Jody Smet <Jody.Smet@eaglecreekre.com>; Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update June 1-4, 2023

My apologies, we are behind.

A total of 126 fish of 7 species passed the ECF on Thursday, 1 June. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 74.0F. Average daily river flow at the Harrisburg gage was 9,140 cfs.

A total of 105 fish of 7 species passed the ECF on Friday, 2 June. No American shad passed the ECF on Friday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 77.5F. Average daily river flow at the Harrisburg gage was 8,770 cfs.

A total of 114 fish of 8 species passed the ECF on Saturday, 3 June. No American shad passed the ECF on Saturday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 76.5F. Average daily river flow at the Harrisburg gage was 8,430 cfs.

A total of 140 fish of 8 species passed the ECF on Sunday, 4 June. No American shad passed the ECF on Sunday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 75.5F. Average daily river flow at the Harrisburg gage was 8,270 cfs.

Joyce A. Foster | Director, Licensing and Compliance
Eagle Creek Renewable Energy

Mobile: 804 338 5110

Email: joyce.foster@eaglecreekre.com



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From: Jody Smet <Jody.Smet@eaglecreekre.com>

Sent: Thursday, June 1, 2023 8:46 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 31, 2023

A total of 127 fish of 8 species passed the ECF on Wednesday, 31 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 73.0F. Average daily river flow at the Harrisburg gage was 9,560 cfs.

Because Conowingo is planning to operate this weekend we will also plan to continue counting at the ECF.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Wednesday, May 31, 2023 11:16 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 30, 2023

A total of 135 fish of 6 species passed the ECF on Tuesday, 30 May. No American shad passed the ECF on Tuesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 73.0F. Average daily river flow at the Harrisburg gage was 10,000 cfs.

From: Jody Smet

Sent: Wednesday, May 31, 2023 11:07 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 26-29, 2023

Forgive me, I'm behind!

As of Friday, 26 May a total of 9,840 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,288 American Shad have been collected at the West lift and 5,552 American Shad have been collected at the East lift. Some 32 American Shad were collected at the West lift and 2 American Shad were collected at the East Lift. To date, a total of 9,244 shad have been transported from the Conowingo lifts, 1,812 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 386 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 383 have been collected at the East Lift. Water temperature was 73.0F. Average daily river flow at the Marietta gage was 14,200 cfs.

As of Saturday, 27 May a total of 9,855 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,291 American Shad have been collected at the West lift and 5,564 American Shad have been collected at the East lift. Some 3 American Shad were collected at the West lift and 12 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported

from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 386 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 383 have been collected at the East Lift. Water temperature was 73.0F. Average daily river flow at the Marietta gage was 13,500 cfs.

As of Sunday, 28 May a total of 9,906 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,325 American Shad have been collected at the West lift and 5,581 American Shad have been collected at the East lift. Some 34 American Shad were collected at the West lift and 17 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 392 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 389 have been collected at the East Lift. Water temperature was 72.9F. Average daily river flow at the Marietta gage was 12,800 cfs.

As of Monday, 29 May a total of 9,937 American Shad have been collected at the Conowingo Fish Lifts. A total of 4,352 American Shad have been collected at the West lift and 5,585 American Shad have been collected at the East lift. Some 27 American Shad were collected at the West lift and 4 American Shad were collected at the East Lift. To date, a total of 9,289 shad have been transported from the Conowingo lifts, 1,857 have been stocked at the Columbia boat ramp downstream of York Haven and 7,432 shad have been stocked at the Canal Lock ramp upstream of York Haven. A total of 18 Alewife have been collected at the Lifts; 17 have been collected at the West Lift and 1 was collected at the East Lift. A total of 394 Blueback have been collected at the Lifts; 3 have been collected at the West lift and 391 have been collected at the East Lift. Water temperature was 69.3F. Average daily river flow at the Marietta gage was 12,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

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From: Jody Smet

Sent: Friday, May 26, 2023 9:38 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-'

<shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz

<benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 23-25, 2023

A total of 591 fish of 7 species passed the ECF on Tuesday, 23 May. No American shad passed the ECF on Tuesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 71.5F. Average daily river flow at the Harrisburg gage was 14,300 cfs.

A total of 362 fish of 8 species passed the ECF on Wednesday, 24 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 70.0F. Average daily river flow at the Harrisburg gage was 13,800cfs.

A total of 120 fish of 9 species passed the ECF on Thursday, 25 May. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 71.0F. Average daily river flow at the Harrisburg gage was 12,500 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

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Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Tuesday, May 23, 2023 8:10 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz

<benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 22, 2023

A total of 591 fish of 8 species passed the ECF on Monday, 22 May. No American shad passed the ECF on Monday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 18 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 15,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
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From: Jody Smet

Sent: Monday, May 22, 2023 8:47 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 19-21, 2023

A total of 94 fish of 8 species passed the ECF on Friday, 19 May. No American shad passed the ECF on Friday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 65.5F. Average daily river flow at the Harrisburg gage was 18,300 cfs.

A total of 88 fish of 7 species passed the ECF on Saturday, 20 May. No American shad passed the ECF on Saturday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 66.5F. Average daily river flow at the Harrisburg gage was 17,300 cfs.

A total of 75 fish of 5 species passed the ECF on Sunday, 21 May. No American shad passed the ECF on Sunday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window was 15 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 16,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 19, 2023 6:31 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 18, 2023

A total of 167 fish of 7 species passed the ECF on Thursday, 18 May. No American shad passed the ECF on Thursday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window varied was 12 inches. Average water temperature (bucket grab) was 66.0F. Average daily river flow at the Harrisburg gage was 19,800 cfs.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Thursday, May 18, 2023 7:58 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 17, 2023

A total of 187 fish of 8 species passed the ECF on Wednesday, 17 May. No American shad passed the ECF on Wednesday, to date, a total of 69 American Shad have passed the fishway. Visibility (secchi) at the counting window varied from 3 to 6 inches. Average water temperature (bucket grab) was 67.5F. Average daily river flow at the Harrisburg gage was 22,000 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

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Mobile: 804 382 1764

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From: Jody Smet

Sent: Wednesday, May 17, 2023 8:06 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 16, 2023

A total of 220 fish of 7 species passed the ECF on Tuesday, 16 May. No American shad passed the ECF on Tuesday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 68.0F. Average daily river flow at the Harrisburg gage was 24,100 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

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From: Jody Smet

Sent: Tuesday, May 16, 2023 8:08 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller,

Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; 'Eyler, Sheila' <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: RE: YHPC ECF Fish Passage Update May 15, 2023

A total of 144 fish of 8 species passed the ECF on Monday, 15 May. No American shad passed the ECF on Monday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 67.0F. Average daily river flow at the Harrisburg gage was 26,700 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

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From: Jody Smet

Sent: Monday, May 15, 2023 8:27 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 12-14, 2023

A total of 302 fish of 7 species passed the ECF on Sunday, 14 May. No American shad passed the ECF on Sunday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window ranged 16 to 12 inches. Average water temperature (bucket grab) was 65.0F. Average daily river flow at the Harrisburg gage was 29,400 cfs.

A total of 639 fish of 9 species passed the ECF on Saturday, 13 May. Two American shad passed the ECF on Saturday, to date, a total of 67 American Shad have passed the fishway. Visibility (secchi) at the counting window was 16 inches. Average water temperature (bucket grab) was 65.5F. Average daily river flow at the Harrisburg gage was 32,700 cfs.

A total of 510 fish of 9 species passed the ECF on Friday, 12 May. No American shad passed the ECF on Friday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 66.0F. Average daily river flow at the Harrisburg gage was 37,300 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Friday, May 12, 2023 8:34 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update May 10-11, 2023

A total of 956 fish of 8 species passed the ECF on Wednesday, 10 May. No American shad passed the ECF on Wednesday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 62.5F. Average daily river flows at the Harrisburg gage was 48,700 cfs.

A total of 838 fish of 8 species passed the ECF on Thursday, 11 May. No American shad passed the ECF on Thursday, to date, a total of 65 American Shad have passed the fishway. Visibility (secchi) at the counting window was 12 inches. Average water temperature (bucket grab) was 63.5F. Average daily river flow at the Harrisburg gage was 43,500 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet
Sent: Wednesday, May 3, 2023 8:17 AM
To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>
Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>
Subject: YHPC ECF Fish Passage Update, 2 May 2023

The East Channel Fishway was not staffed on 2 May but was set to allow volitional passage. Counting has temporarily been suspended at the ECF and is expected to resume later this week when river flows fall below 150,000 cfs. Average river flows at the Harrisburg gage on Tuesday, 2 May was 159,000 cfs.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet
Sent: Tuesday, May 2, 2023 8:19 AM
To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>
Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>
Subject: YHPC ECF Fish Passage Update, 1 May 2023

No American Shad were observed passing East Channel Fishway on Monday, 1 May (See Attached). A total of 7 fish of 4 species passed the fishway. Surface water temperature (bucket grab) averaged 56.0F. **River flows are projected to exceed 150,000 cfs today and as a result, counting has temporarily been stopped and will resume later this week when flows fall below 150,000 cfs.**

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs

Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Monday, May 1, 2023 6:28 AM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 30 April 2023

No American Shad were observed passing East Channel Fishway on Sunday, 30 April (See Attached). A total of 45 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 58.0F.

Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs Eagle Creek Renewable Energy

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Sunday, April 30, 2023 7:43 PM

To: Tryninewski, Joshua <jtryninews@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Ron Eberts <reberts@pa.gov>; McCorkle, Richard <richard_mccorkle@fws.gov>; Rob Bourdon <robert.bourdon@maryland.gov>; Zollweg-Horan, Emily C (DEC) <emily.zollweg-horan@dec.ny.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 27-29 April 2023

No American Shad were observed passing East Channel Fishway on Saturday, 29 April (See Attached). A total of 64 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 58.0F.

Two American Shad were observed passing East Channel Fishway on Friday, 28 April (See Attached). A total of 229 fish of 9 species passed the fishway. Surface water temperature (bucket grab) averaged 60.5F.

No American Shad were observed passing East Channel Fishway on Thursday, 27 April (See Attached). A total of 365 fish of 8 species passed the fishway. Surface water temperature (bucket grab) averaged 57.0F.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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From: Jody Smet

Sent: Thursday, April 27, 2023 9:28 AM

To: 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Aaron Henning' <ahenning@srbc.net>; 'Miller, Jeremy' <jeremmille@pa.gov>; 'Ron Eberts' <reberts@pa.gov>; 'McCorkle, Richard' <richard_mccorkle@fws.gov>; 'Rob Bourdon' <robert.bourdon@maryland.gov>; 'Zollweg-Horan, Emily C (DEC)' <emily.zollweg-horan@dec.ny.gov>; 'Shawn Seaman -DNR-' <shawn.seaman@maryland.gov>; Eyler, Sheila <sheila_eyler@fws.gov>

Cc: Joyce Foster <joyce.foster@eaglecreekre.com>; Benjamin Lenz <benjamin.lenz@eaglecreekre.com>

Subject: YHPC ECF Fish Passage Update, 25-26 April 2023

Agencies,

As agreed, Tuesday, 25 April was the first day the York Haven East Channel Fishway was staffed in 2023. No American Shad were observed passing the ECF on Tuesday (see attached). A total of 21 fish of species of 3 species passed the fishway. Surface water temperature (bucket grab) averaged 54.5F.

No American Shad were observed passing the ECF on Wednesday, 26 April (see attached). A total of 93 fish of species of 7 species passed the fishway. Surface water temperature (bucket grab) averaged 57.0F.

If there are other Agency POCs that should be copied on this email, please let me know.

**Jody J. Smet, AICP | Senior Vice President Engineering & Regulatory Affairs
Eagle Creek Renewable Energy**

7315 Wisconsin Ave | Suite 1100W | Bethesda, MD 20814

Mobile: 804 382 1764

Email: jody.smet@eaglecreekre.com

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To: [Benjamin Lenz](#); [Eberts, Ron](#); [Aaron Henning](#); [Miller, Jeremy](#); [Jesus Morales](#); shawn.seaman@maryland.gov; [Niewinski, Brian](#); [Williamson, Scott](#); [Emily Zollweg-Horan](#)
Cc: [Tom O'Connor](#); [Jeremy Burnell](#); [Joyce Foster](#); [Chris Frese](#); [Jody Smet](#)
Subject: Re: [EXTERNAL] York Haven Hydro Project (FERC No. 1888) - 2023 Fishway Operation Plan Annual Report DRAFT for review
Date: Monday, January 22, 2024 12:21:14 PM
Attachments: [image001.png](#)
[York Haven 2023 Fishway Inspection Letter.pdf](#)

Ben,

Thank you for sharing a draft of the 2023 Fishway Operating Plan Annual Report for the York Haven Hydro Project.

The Service has reviewed the report and has no specific comments on the report. We do request that an excel file be provided to the Service containing all the operational, environmental, and fish passage data provided in the report when the final report is distributed to the agencies.

On a related note, the Service submitted a fishway inspection report to York Haven Power Company on August 4, 2023. The inspection report is attached here again for your reference. In that report, the Service suggests not operating the diffuser gate that feeds the floor diffuser in the entrance channel to reduce upwelling and turbulence in the fishway for the 2024 season. The Service is requesting that York Haven Power Company consider this operational change for the 2024 season.

Thanks again for the opportunity to review, and let me know if you have any questions.

Sheila Eyler
U.S. Fish and Wildlife Service
Mid-Atlantic Fish & Wildlife Conservation Office
717-387-2117

From: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>
Sent: Thursday, December 28, 2023 4:03 PM
To: Eyler, Sheila <sheila_eyler@fws.gov>; Eberts, Ron <reberts@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Morales, Jesus J <jesus_morales@fws.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Niewinski, Brian <bniewinski@pa.gov>; Williamson, Scott <scwilliams@pa.gov>; Emily Zollweg-Horan <emily.zollweg-horan@dec.ny.gov>
Cc: Tom OConnor <Tom.OConnor@eaglecreekre.com>; Jeremy Burnell <Jeremy.Burnell@eaglecreekre.com>; Joyce Foster <joyce.foster@eaglecreekre.com>; Chris Frese <Chris.Frese@KleinschmidtGroup.com>; Jody Smet <Jody.Smet@eaglecreekre.com>
Subject: [EXTERNAL] York Haven Hydro Project (FERC No. 1888) - 2023 Fishway Operation Plan

Annual Report DRAFT for review

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Agencies –

Attached is a draft of the 2023 York Haven fishway operation annual report for your review and comment.

Please submit written comments on the draft report by **January 31, 2024**.

I'm still working on a date and time to schedule the annual meeting in January 2024. Currently, Jan. 24 and 25 are the two dates with the most potential. I'll send a Teams invitation as soon as the meeting time is confirmed.

Thank you,

Ben E. Lenz | Licensing and Compliance Manager
Eagle Creek Renewable Energy

Mobile: 203 240 3664

Email: benjamin.lenz@eaglecreekre.com



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From: [Eberts, Ron](#)
To: [Benjamin Lenz](#); [Eyler, Sheila](#); [Aaron Henning](#); [Miller, Jeremy](#); [Jesus Morales](#); shawn.seaman@maryland.gov; [Niewinski, Brian](#); [Williamson, Scott](#); [Emily Zollweg-Horan](#)
Cc: [Tom O'Connor](#); [Jeremy Burnell](#); [Joyce Foster](#); [Chris Frese](#); [Jody Smet](#)
Subject: RE: [External] York Haven Hydro Project (FERC No. 1888) - 2023 Fishway Operation Plan Annual Report DRAFT for review
Date: Wednesday, January 24, 2024 10:18:03 AM
Attachments: [image001.png](#)
[2023 York Haven Fishway Operations Summary Draft for Review 12-28-2023.pdf](#)
[York Haven 2023 Fishway Inspection Letter.pdf](#)

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Ben,

PA DEP has reviewed the attached report and has no specific comments.

PA DEP supports the Service's suggestion, as noted within the attached 2023 Fishway Inspection Letter, to not operate the diffuser gate that feeds the floor diffuser in the entrance channel to reduce upwelling and turbulence in the fishway for the 2024 season. Please consider this operational change for the 2024 season.

Regards,

Ronald C. Eberts, Jr. | Environmental Protection Compliance Specialist
Department of Environmental Protection
Southcentral Regional Office
Waterways & Wetlands Program
909 Elmerton Avenue | Harrisburg, PA 17110
Phone: 717.705.4819 | Fax: 717.705.4760
THE SOUTHCENTRAL REGIONAL OFFICE AFTER HOURS REPORTING & 24 HOUR EMERGENCY
RESPONSE NUMBER: 1-800-541-2050.

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From: Benjamin Lenz <benjamin.lenz@eaglecreekre.com>
Sent: Thursday, December 28, 2023 4:03 PM
To: Sheila Eyler <Sheila_Eyler@fws.gov>; Eberts, Ron <reberts@pa.gov>; Aaron Henning <ahenning@srbc.net>; Miller, Jeremy <jeremmille@pa.gov>; Morales, Jesus J <jesus_morales@fws.gov>; Shawn Seaman -DNR- <shawn.seaman@maryland.gov>; Niewinski, Brian <bniewinski@pa.gov>; Williamson, Scott <scwilliams@pa.gov>; Emily Zollweg-Horan <emily.zollweg-horan@dec.ny.gov>

Cc: Tom OConnor <Tom.OConnor@eaglecreekre.com>; Jeremy Burnell <Jeremy.Burnell@eaglecreekre.com>; Joyce Foster <joyce.foster@eaglecreekre.com>; Chris Frese <Chris.Frese@KleinschmidtGroup.com>; Jody Smet <Jody.Smet@eaglecreekre.com>
Subject: [External] York Haven Hydro Project (FERC No. 1888) - 2023 Fishway Operation Plan Annual Report DRAFT for review

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Agencies –

Attached is a draft of the 2023 York Haven fishway operation annual report for your review and comment.

Please submit written comments on the draft report by **January 31, 2024**.

I'm still working on a date and time to schedule the annual meeting in January 2024. Currently, Jan. 24 and 25 are the two dates with the most potential. I'll send a Teams invitation as soon as the meeting time is confirmed.

Thank you,

Ben E. Lenz | Licensing and Compliance Manager
Eagle Creek Renewable Energy

Mobile: 203 240 3664

Email: benjamin.lenz@eaglecreekre.com



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APPENDIX II

Fishway Water Temperature (°F) - March 31 through December 15, 2023

**Average Daily Water Temperature
at the East Channel Fishway,
March 31 to December 15, 2023**

3/31/23	45.6
4/1/23	48.2
4/2/23	48.5
4/3/23	48.9
4/4/23	51.2
4/5/23	53.3
4/6/23	54.3
4/7/23	51.7
4/8/23	51.3
4/9/23	52.8
4/10/23	54.7
4/11/23	56.1
4/12/23	59.2
4/13/23	64.3
4/14/23	65.5
4/15/23	65.3
4/16/23	66.0
4/17/23	64.0
4/18/23	59.5
4/19/23	59.2
4/20/23	63.8
4/21/23	67.2
4/22/23	64.8
4/23/23	61.9
4/24/23	59.0
4/25/23	59.2
4/26/23	59.3
4/27/23	61.4
4/28/23	58.1
4/29/23	57.8
4/30/23	56.1
5/1/23	53.8
5/2/23	52.4
5/3/23	51.7
5/4/23	52.6
5/5/23	54.0
5/6/23	56.2
5/7/23	56.2
5/8/23	59.2
5/9/23	60.9
5/10/23	62.4
5/11/23	64.3
5/12/23	66.9
5/13/23	66.2

5/14/23	65.7
5/15/23	67.6
5/16/23	68.1
5/17/23	66.9
5/18/23	65.7
5/19/23	65.3
5/20/23	67.6
5/21/23	68.4
5/22/23	71.0
5/23/23	72.0
5/24/23	72.7
5/25/23	70.7
5/26/23	70.3
5/27/23	71.9
5/28/23	72.2
5/29/23	73.4
5/30/23	74.6
5/31/23	75.5
6/1/23	77.6
6/2/23	79.5
6/3/23	79.0
6/4/23	76.7
6/5/23	74.8
6/6/23	73.6
6/7/23	73.1
6/8/23	71.3
6/9/23	70.5
6/10/23	72.0
6/11/23	74.8
6/12/23	73.6
6/13/23	73.1
6/14/23	70.3
6/15/23	70.1
6/16/23	69.8
6/17/23	70.5
6/18/23	73.4
6/19/23	75.8
6/20/23	75.8
6/21/23	73.2
6/22/23	70.7
6/23/23	69.6
6/24/23	73.6
6/25/23	77.7
6/26/23	78.4
6/27/23	79.5
6/28/23	77.1
6/29/23	77.4

6/30/23	77.6
7/1/23	77.1
7/2/23	78.3
7/3/23	79.5
7/4/23	81.8
7/5/23	83.8
7/6/23	85.4
7/7/23	85.0
7/8/23	84.8
7/9/23	80.9
7/10/23	78.8
7/11/23	78.6
7/12/23	80.9
7/13/23	82.9
7/14/23	83.4
7/15/23	85.0
7/16/23	84.1
7/17/23	83.6
7/18/23	82.5
7/19/23	82.0
7/20/23	82.5
7/21/23	81.3
7/22/23	80.2
7/23/23	80.7
7/24/23	80.6
7/25/23	79.9
7/26/23	80.2
7/27/23	79.9
7/28/23	82.0
7/29/23	83.1
7/30/23	81.5
7/31/23	80.8
8/1/23	79.3
8/2/23	78.4
8/3/23	78.0
8/4/23	77.5
8/5/23	77.4
8/6/23	76.7
8/7/23	78.3
8/8/23	79.0
8/9/23	77.5
8/10/23	77.5
8/11/23	76.8
8/12/23	77.4
8/13/23	79.1
8/14/23	78.5
8/15/23	78.7

8/16/23	78.8
8/17/23	76.9
8/18/23	76.2
8/19/23	74.1
8/20/23	73.2
8/21/23	73.1
8/22/23	73.8
8/23/23	73.4
8/24/23	72.3
8/25/23	73.2
8/26/23	76.6
8/27/23	78.4
8/28/23	76.9
8/29/23	74.3
8/30/23	74.8
8/31/23	73.8
9/1/23	72.7
9/2/23	72.9
9/3/23	75.2
9/4/23	77.2
9/5/23	79.4
9/6/23	81.5
9/7/23	82.0
9/8/23	80.6
9/9/23	78.8
9/10/23	78.2
9/11/23	78.1
9/12/23	76.7
9/13/23	76.1
9/14/23	74.3
9/15/23	71.9
9/16/23	70.5
9/17/23	68.5
9/18/23	67.4
9/19/23	67.0
9/20/23	67.2
9/21/23	67.7
9/22/23	67.4
9/23/23	65.5
9/24/23	63.3
9/25/23	62.7
9/26/23	61.9
9/27/23	62.5
9/28/23	62.7
9/29/23	63.3
9/30/23	64.3
10/1/23	65.8

10/2/23	67.6
10/3/23	69.4
10/4/23	70.3
10/5/23	70.4
10/6/23	70.3
10/7/23	69.4
10/8/23	64.3
10/9/23	60.1
10/10/23	59.2
10/11/23	59.3
10/12/23	59.8
10/13/23	60.7
10/14/23	59.7
10/15/23	56.4
10/16/23	55.1
10/17/23	55.8
10/18/23	56.4
10/19/23	55.7
10/20/23	56.6
10/21/23	57.2
10/22/23	56.2
10/23/23	54.6
10/24/23	53.9
10/25/23	54.6
10/26/23	56.2
10/27/23	57.2
10/28/23	59.0
10/29/23	60.4
10/30/23	59.7
10/31/23	56.8
11/1/23	53.2
11/2/23	50.1
11/3/23	48.8
11/4/23	48.5
11/5/23	49.3
11/6/23	49.9
11/7/23	50.9
11/8/23	51.5
11/9/23	51.8
11/10/23	50.8
11/11/23	49.3
11/12/23	48.3
11/13/23	47.0
11/14/23	46.5
11/15/23	46.3
11/16/23	46.5
11/17/23	46.7

11/18/23	48.0
11/19/23	47.5
11/20/23	46.4
11/21/23	44.9
11/22/23	44.5
11/23/23	45.0
11/24/23	45.0
11/25/23	43.7
11/26/23	42.0
11/27/23	41.7
11/28/23	40.6
11/29/23	37.4
11/30/23	36.2
12/1/23	36.6
12/2/23	37.8
12/3/23	39.7
12/4/23	40.9
12/5/23	40.8
12/6/23	39.9
12/7/23	39.3
12/8/23	39.7
12/9/23	40.2
12/10/23	40.4
12/11/23	41.1
12/12/23	40.4
12/13/23	40.4
12/14/23	39.6
12/15/23	41.6