CONOWINGO HYDROELECTRIC PROJECT
FERC PROJECT NUMBER 405

FISHWAY OPERATION AND MAINTENANCE PLAN
2022 ANNUAL REPORT

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LIST OF ABBREVIATIONS

cfs	cubic feet per second
Conowingo Project or Project	Conowingo Hydroelectric Project (FERC Project Number 405)
Constellation	Constellation Energy Generation, LLC
CWECF	Conowingo West Eel Collection Facility
EFL	East Fish Lift
(°F)	degrees Fahrenheit
FERC	Federal Energy Regulatory Commission
FOMP	Fishway Operation and Maintenance Plan
gpm	gallon per minute
MDE	Maryland Department of the Environment
MDNR	Maryland Department of Natural Resources
mg/L	milligrams per liter
PADEP	Pennsylvania Department of Environmental Protection
PFBC	Pennsylvania Fish and Boat Commission
Service or USFWS	United States Fish and Wildlife Service
SRBC	Susquehanna River Basin Commission
USGS	United States Geological Survey
WFL	West Fish Lift

EXECUTIVE SUMMARY

Constellation Energy Generation, LLC (Constellation), has operated fish collection facilities at its Conowingo Hydroelectric Project (Conowingo Project or Project) since 1972. These operations are part of a cooperative private, state, and federal effort to restore American Shad (*Alosa sapidissima)* and other migratory fishes to the Susquehanna River Basin.

The start of operation for the West Fish Lift (WFL) began on March 22, 2022, and the start of operation for the East Fish Lift (EFL) began on March 23, 2022. The WFL and EFL operations continued to June 15, 2022.

The WFL operated for 70 days in 2022 collecting American Shad for transporting upriver to the Columbia Riverfront Park Boat Ramp and the Canal Lock Boat Ramp. The number of lifts conducted in 2022 was 1,397 and fishing time totaled 812 hours and 8 minutes. A total of 489,026 fish of 36 species along with four (4) Tiger Trout (*Salmo trutta* × *Salvelinus fontinalis*), two (2) Splake (*Salvelinus namaycush x Salvelinus fontinalis*), fifteen (15) Tiger Muskellunge (*Esox masquinongy* × *Esox Lucius*) and nine (9) Striped Bass (*Morone saxatilis*) hybrids were collected and identified in the WFL sorting tank. Gizzard Shad (*Dorosoma cepedianum*) (468,662), American Shad (2,314), Channel Catfish (*Ictalurus punctatus*) (7,644), and Shorthead Redhorse (*Moxostoma macrolepidotum*) (4,179) dominated the catch and comprised nearly 98.7% of the total fish collected. Gizzard Shad alone accounted for 95.8% of the total fish collected.

The Conowingo East Fish Lift (EFL) operated for 74 days in 2022 collecting American Shad for transporting upriver to the Columbia Riverfront Park Boat Ramp and the Canal Lock Boat Ramp. The number of lifts conducted in 2022 was 1,599 and fishing time totaled 818 hours and 17 minutes. A total of 1,467,565 fish of 35 species along with one (1) Splake, and two (2) Tiger Muskellunge hybrids were collected and identified in the EFL sorting tank. Gizzard Shad (1,456,797), American Shad (2,283), Channel Catfish (2,999), and Shorthead Redhorse (1,080) dominated the catch and comprised nearly 99.7% of the total fish collected. Gizzard Shad alone accounted for 99.3% of the total fish collected.

The Conowingo West Eel Collection Facility (CWECF) was placed in service on April 30, 2022. The facility operated a total of 204 consecutive days from May 1 to November 20, 2022. A total of 139,798 juvenile eels were collected at the CWECF.

1 INTRODUCTION

Constellation Energy Generation, LLC (Constellation), is the licensee for the 570.15-megawatt Conowingo Hydroelectric Project (Conowingo Project or Project). The Project is located on the Susquehanna River in Pennsylvania and Maryland. Conowingo Dam is located at river mile 10 in Maryland connecting Cecil and Harford counties, as is the lowermost six miles of the Project reservoir, Conowingo Pond. The remaining eight miles of Conowingo Pond are in Pennsylvania, within York and Lancaster counties.

Constellation filed an Initial Fishway Operation and Maintenance Plan (FOMP) describing Constellation's fish passage operations and maintenance activities with the Federal Energy Regulatory Commission (FERC) on February 2, 2021. An annual update to the FOMP was filed on January 24, 2022. Project operations through 2022 were in accordance with the January 24, 2022, version of the FOMP, as described within this annual report.

A new 50-year license for the Project was issued to Constellation on March 19, 2021, and this annual report is required by Article 401 and FERC License, Appendix 1, U.S. Department of the Interior Modified Fishway Prescription for the Conowingo Hydroelectric Project No. 405, Section 12.4, which reads,

> *By December 31 of each year, the Licensee shall provide an annual report to the Service, FERC, and resource agencies detailing: the implementation of the FOMP, including any deviations from the FOMP and a process to prevent those deviations in the future; any proposed modifications to the FOMP, or in the case of emergencies or project outages, the steps taken by the Licensee to minimize adverse effects on fisheries including any proposed modifications to those steps to further enhance their effectiveness in the future; and operational data for both fishways and the Project to allow the Parties to examine correlations between particular operational patterns and successful or unsuccessful fishway operation, and to confirm, once an operational regime with known effectiveness is settled upon, that the Project continues to operate under that regime. The Service understands that details of operation constitute confidential business information and agrees to protect them from disclosure as such to the extent it is able to do so by law.*

2 IMPLEMENTATION

2.1 Project Operational and Supporting Data

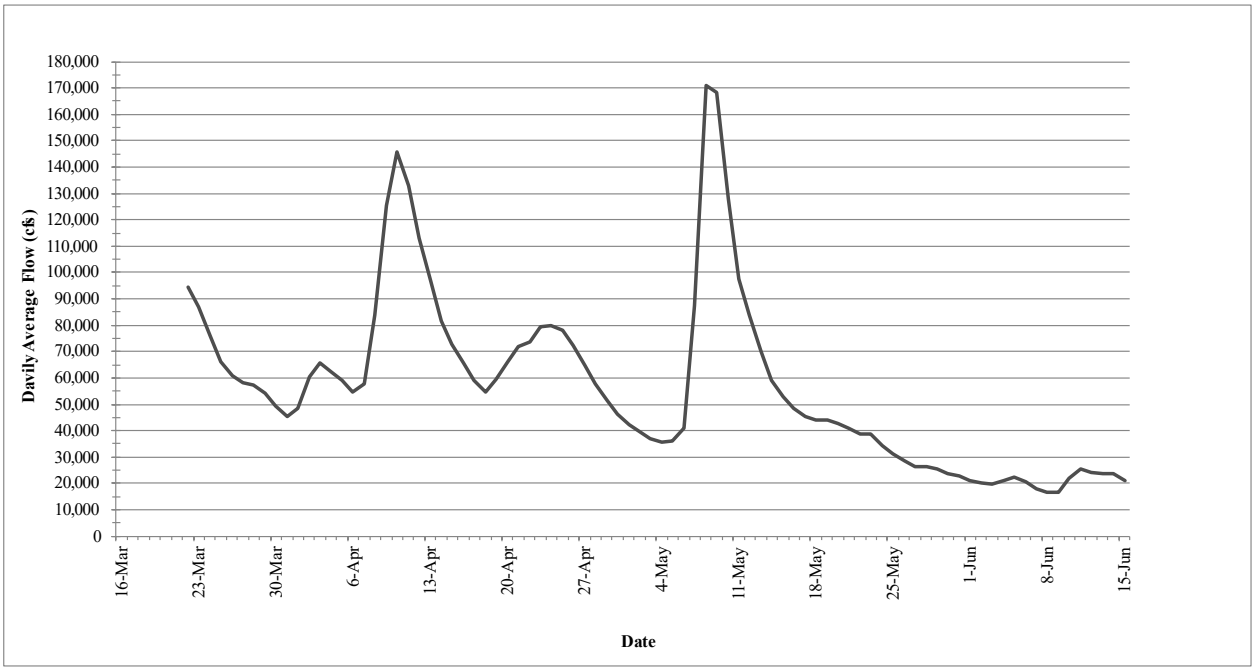
2.1.1 Flow Data USGS Marietta Gage

Maximum, average, median, and minimum daily flows from United States Geological Survey (USGS) streamflow gage located at Marietta, PA (USGS gage no. 01576000) are shown in Table 2.1.1-1 for the 2022 fish passage season (March 22 through June 15). Figure 2.1.1-1 shows a time series of the data, and all values are contained in Appendix A.

Table 2.1.1-1. Summary of 2022 Flow Data USGS Marietta Gage

Period	Maximum Daily Flow (cfs)	Average Daily Flow (cfs)	Median Daily Flow (cfs)	Minimum Daily Flow (cfs)
March 22 -June 15, 2022	170,833	57,185	53,504	16,527

Figure 2.1.1-1. 2022 Average Daily Flow Data USGS Marietta Gage



2.1.2 Water Quality Data

The maximum, average, median, and minimum daily dissolved oxygen concentrations[1] and water temperature[2] are shown in Table 2.1.2-1 and Table 2.1.2-2, respectively, for the 2022 fish passage season (March 22 through June 15). Figure 2.1.2-1 shows a time series of the dissolved oxygen data, and Figure 2.1.2-2 contains a time series of recorded water temperature data. All water quality values are contained in Appendix B.

Table 2.1.2-1. Summary of 2022 Dissolved Oxygen Data

Period	Maximum Daily Average Dissolved Oxygen (mg/L)	Average Daily Average Dissolved Oxygen (mg/L)	Median Daily Average Dissolved Oxygen (mg/L)	Minimum Daily Average Dissolved Oxygen (mg/L)
March 22 -June 15, 2022	13.1	10.0	10.3	6.4

[1] For the March 22-April 30 period dissolved oxygen values were recorded twice daily at the WFL while in operation (at 8:00 AM and 6:00 PM). For the May 1-June 15 period dissolved oxygen values were recorded on a 30-minute interval at Monitoring Station 643 located in the Conowingo tailrace, approximately 0.6 miles downstream from the dam.

[2] For the entire 2022 fish passage season, temperature values were recorded twice daily at the WFL while in operation (at 8:00 AM and 6:00 PM). Daily average water temperature and dissolved oxygen data recorded from Station 643 has been included for non-operational days during the fish passage season (after May 1).

Table 2.1.2-2. Summary of 2022 Water Temperature Data

Period	Maximum Daily Average Water Temperature (°F)	Average Daily Average Water Temperature (°F)	Median Daily Average Water Temperature (°F)	Minimum Daily Average Water Temperature (°F)
March 22 -June 15, 2022	79.9	60.9	57.2	43.7

Figure 2.1.2-1. 2022 Dissolved Oxygen Data

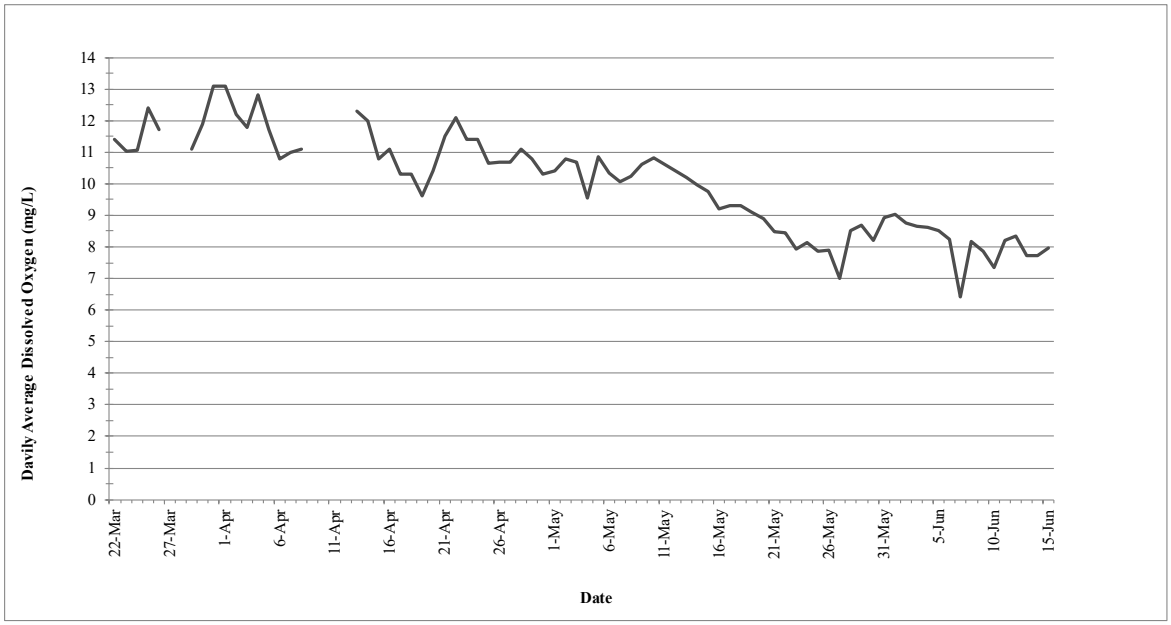
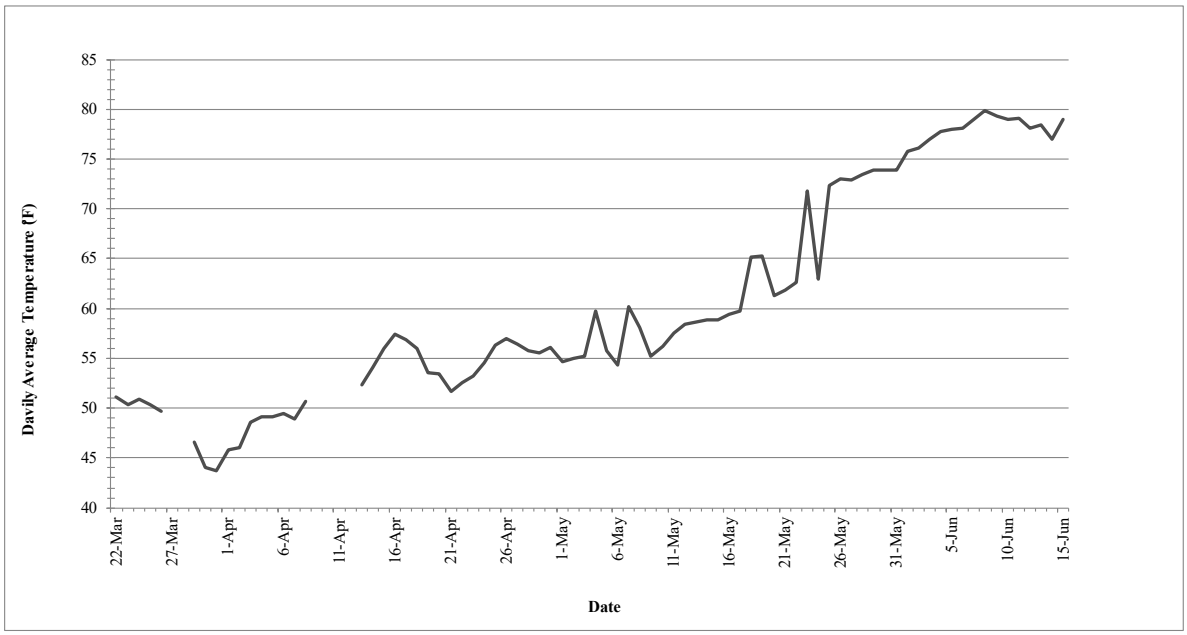


Figure 2.1.2-2. 2022 Water Temperature Data



2.1.3 Project Operations Data

Hourly individual turbine unit operations information, recorded as part of Project operations data, is provided in Appendix C[3]. For each hourly increment throughout the 2022 fish passage season, the operational status of each turbine is presented as "on" or "off". Turbines generally began or ended their operation at or near the end of hourly intervals. In instances where turbines are operated less than 30 minutes throughout an hourly period, they are considered "off".

The planned sequence of turbine operation is provided in Table 2.1.3-1 below and in Section 3.1 of the January 24, 2022 FOMP, which also describes that the schedule may be altered based on unit outages and other operational requirements. Deviations from this sequence occurred in approximately 33% of operating hour time intervals (682 of 2,052 hourly intervals)[4] during the 2022 fish season. The following equipment outages (Table 2.1.3-2) accounted for approximately 49% of the deviations (333 of 682 hourly intervals).

Table 2.1.3-1: Turbine Operating Sequence

Sequence ON/OFF	Unit No. ON	Unit No. OFF
1st	5	1
2nd	7	2
3rd	3	4
4th	6	8

[3] Project operations data is provided from March 22 through November 20, 2022, in Appendix C. However, operations data for September 27, 2022, is missing and not available from the Project operational records.

[4] The WFL ran for 812 hours and 8 minutes of total time and reflect partial hourly intervals (e.g., end time at 1603 hours), however the turbine operation data reflect whole hourly intervals (e.g., end time at 1700 hours).

Sequence ON/OFF	Unit No. ON	Unit No. OFF
5th	10	9
6th	11	11
7th	9	10
8th	8	6
9th	4	3
10th	2	7
11th	1	5

Table 2.1.3-2: Planned, Unplanned, and Maintenance Outages during 2022 Fish Passage Season (March 22 to June 15, 2022)

Unit No.	Outage Start Time	Outage End Time
6	3/25/2022 @23:23 hours	3/26/2022 @ 21:32 hours
10	4/15/2022 @ 14:15 hours	4/15/2022 23:20 hours
11	4/15/2022 @ 14:15 hours	4/15/2022 23:20 hours
1	5/2/2022 @ 04:00 hours	5/21/2022 @ 19:52 hours
4	5/2/2022 @ 04:00 hours	5/21/2022 @ 23:31 hours
2	5/2/2022 @ 04:00 hours	5/21/2022 @ 19:52 hours
4	5/21/2022 @ 23:32 hours	5/25/2022 @ 23:50 hours
3	5/22/2022 @ 01:00 hours	6/10/2022 @ 12:07 hours
10	5/22/2022 @ 20:54 hours	5/27/2022 @ 18:27 hours
11	5/22/2022 @ 20:54 hours	5/27/2022 @ 12:55 hours
1	5/24/2022 @ 06:00 hours	5/26/2022 @ 00:36 hours
2	5/24/2022 @ 06:00 hours	5/25/2022 @ 23:50 hours
1	5/26/2022 @ 13:00 hours	5/26/2022 @ 14:11 hours
2	5/26/2022 @ 13:00 hours	5/26/2022 @ 14:11 hours
5	6/2/2022 @ 13:00 hours	6/2/2022 @ 14:48 hours
6	6/2/2022 @ 13:00 hours	6/2/2022 @ 14:48 hours
2	6/6/2022 @ 04:00 hours	6/8/2022 @ 11:27 hours
10	6/6/2022 @ 13:00 hours	6/6/2022 @ 15:07 hours
11	6/6/2022 @ 13:00 hours	6/6/2022 @ 15:09 hours
10	6/6/2022 @ 14:40 hours	6/6/2022 @ 19:15 hours
11	6/6/2022 @ 14:40 hours	6/6/2022 @ 19:15 hours

Unit No.	Outage Start Time	Outage End Time
4	6/8/2022 @ 06:00 hours	6/8/2022 @ 11:29 hours
3	6/13/2022 @ 13:00 hours	6/13/2022 @ 14:31 hours
4	6/13/2022 @ 13:00 hours	6/13/2022 @ 14:33 hours
5	6/14/2022 @ 04:00 hours	8/25/2022 @ 16:35 hours
6	6/15/2022 @ 01:00 hours	6/15/2022 @ 18:40 hours
4	6/15/2022 @ 01:00 hours	6/15/2022 @ 18:40 hours

The hourly individual turbine discharge data and the hourly discharge through the spillway gates for the 2022 American shad and American eel passage seasons (March 22-November 20, 2022) is provided in Appendix C. Constellation records the daily average discharge of each individual turbine rather than recording each turbine's hourly total discharge. Therefore, the discharge data provided is calculated using each turbine's daily average discharge and the hourly "on" or "off" status. These values were compared to the Project's recorded hourly total discharge, which is a record of the discharge from the powerhouse and through the spillway and were generally in agreement. However, values were observed differing at the start and end of a turbine's operational period. This difference is a result of the calculated data incorporating daily average discharge and therefore not capturing the ramping up or down of the turbine as it begins or ends operation. Additionally, values differ during periods of spillage (e.g., April 8 through April 13, 2022), as the recorded plant discharge includes spillage information.

Minimum flow releases from the Project during the upstream fish passage season followed the schedule outlined in the FERC license. Minimum flows of 3,500 cfs and 10,000 cubic feet per second (cfs) or natural river flow (whichever is less), as measured at the USGS gage at Marietta, PA were maintained for the periods of March 22 to 31 and April 1 to 30, respectively. A minimum flow of 7,500 cfs or natural river flow (as previously noted) was maintained for the period of May 1 to 31. A minimum flow of 5,000 cfs or natural river flow (as previously noted) was maintained for the period of June 1 to September 14. A minimum flow of 3,500 cfs or natural river flow (as previously noted) was maintained for the period of September 15 to November 30.

2.2 Fish Passage Facilities

2.2.1 Conowingo West Fish Lift

2.2.1.1 Staffing

During the 2022 fish passage facility operating season, trained and qualified individuals were on site to operate the West Fish Lift (WFL). The WFL operating crew included a supervising biologist, lift operator, and biological technicians. All fishway operational personnel reviewed and understood the FOMP.

The supervising biologists and lift operators were responsible for operating mechanical and electrical equipment associated with the WFL. The lift operators set the equipment as directed by the supervising biologist. The lift operators adjusted equipment settings throughout the course of each day as hydraulic conditions changed so attraction flows from, and in, the WFL were optimized. The supervising biologists provided technical guidance on all aspects of daily operation at the WFL and were responsible for fine tuning the operation to assure the best possible efficiency. In addition, the supervising biologist was responsible for establishing fishing time and lift frequency, and mobilizing transport units and personnel, which is based on fish abundance that can change throughout the day and the season. The supervising

biologist oversaw collection of all data, ensure their accuracy, produced daily and weekly reports, and distributed reports via email to all pertinent Constellation and resource agency personnel.

2.2.1.2 Maintenance

Pre-season maintenance and post-season maintenance measures took place as outlined in the January 24, 2022 version of the FOMP.

Constellation utilizes an electronic work management platform to manage maintenance tasks including tasks associated with the pre-season and post-season maintenance activities of the fish passage facilities. Several tasks are setup in the work orders for pre- and post-season maintenance. Completion of activities is recorded in the work management system as well as any findings and follow up required. Work orders are included in Appendix D and are scheduled well in advance of the completion date to allow time for vendors to be on-site. Pre-season and post-season maintenance checklists from this work management platform were completed in accordance with the FOMP.

2.2.1.3 Operation

The 2022 fish passage season at the WFL began on March 22 and continued through June 15[5]. The WFL operated for a total of 812 hours and 8 minutes and completed 1,397 lifts for the 2022 season (Table 2.2.1.3-1). The hours of daily operation, including the starting and ending time of daily fish operations, are listed in Appendix E.

Table 2.2.1.3-1: Summary of Operations at the Conowingo West Fish Lift, March 22 – June 15, 2022

Total Number of Days Operations Occurred	Total Time of Operation (hr:min)	Total Number of Lifts Operated
70	812:08	1,397

2.2.1.3.1 Fish Counts, Transport, and Stocking

A total of 489,026 fish of 36 species along with four (4) Tiger Trout (*Salmo trutta* × *Salvelinus fontinalis*), two (2) Splake (*Salvelinus namaycush x Salvelinus fontinalis*), fifteen (15) Tiger Muskellunge (*Esox masquinongy* × *Esox Lucius*) and nine (9) Striped Bass (*Morone saxatilis*) hybrids were collected and identified in the WFL sorting tank during the 2022 season.

Target native and non-native fish counts are summarized in Table 2.2.1.3.1-1. Of the 3,275 target native species collected, 181 were sacrificed and there was a total of 28 mortalities. All target non-native species collected were sacrificed except for one Northern Snakehead, which is due to one escaping (leaping) from the WFL sorting tank prior to the technicians entering the WFL sorting tank. The count[6] of all fish species captured at the lift are additionally contained in Appendix E. The number of fish species trapped and transported, including date, time, and location of release is additionally provided in Appendix F.

During the 2022 season, the WFL collected one (1) American Shad (*Alosa sapidissima*) that was previously captured, Floy-tagged and released downstream of Conowingo Dam by the Maryland Department of

[5] The WFL did not operate on March 27 and 28, April 9-12, May 7-11 and 23, and June 4, 5, 11, and 12, 2022.
[6] During trap and transport operations, the counts are recorded per each lift, not by the hour.

Natural Resources (MDNR). Per the 2022 FOMP operational guidelines, all re-captured MDNR tagged American Shad from the current year (2022) were transported upriver. Any MDNR tagged American Shad collected from previous years (prior to 2022) were to be sacrificed for study. No MDNR tagged American Shad from previous years were collected in 2022. A summary of Floy-tagged American Shad collected at the WFL is provided in Table 2.2.1.3.1-2.

Table 2.2.1.3.1-1: Conowingo West Fish Lift Counts, March 22 - June 15, 2022

Species	Total Collected	Percent of Total Collected	Total Transported	Total Stocked	Total Sacrificed	Holding Mortalities	Lift Mortalities	Transport Mortalities
Target Native Species								
Alewife	778	0.16%	681	681	78	14	3	0
American Shad	2,314	0.47%	2,161	2,156	47	6	0	5
Blueback Herring	183	0.04%	127	127	56	0	0	0
Target Non-native Species								
Blue Catfish	24	0.00%	0	0	24	n/a	n/a	n/a
Flathead Catfish	767	0.16%	0	0	767	n/a	n/a	n/a
Northern Snakehead	738	0.15%	0	0	737	n/a	n/a	n/a
Dominant Species								
Gizzard Shad	468,662	95.84%	0	0	n/a	n/a	n/a	n/a
Channel Catfish	7,644	1.56%	0	0	n/a	n/a	n/a	n/a
Shorthead Redhorse	4,179	0.85%	0	0	n/a	n/a	n/a	n/a
All Species	***489,026***							

Table 2.2.1.3.1 2: Summary of Floy-tagged American Shad Collected at the Conowingo West Fish Lift, March 22 - June 15, 2022

Tag Number	Sex of Fish	Date Tagged[7]	Date Collected	Days at Large	Disposition
10022	F	4/29/2022	5/17/2022	18	Transported

2.2.1.4 Biological Sampling

Life history information (length, weight, sex, spawning condition, scales and otolith samples) was taken from American Shad that were sacrificed or died (lift, holding, or transport mortalities). During the 2022 season, a total of 0 lift mortalities, 6 holding mortalities, and 5 transport mortalities of American Shad occurred at WFL. A total of 47 American Shad were sacrificed from the WFL catch for life history information, comprised of 30 males and 17 females.

Several river herring, (778 Alewife (*Alosa pseudoharengus*) and 183 Blueback Herring (*Alosa aestivalis*)) were collected during the 2022 season. A total of 78 alewife and 56 blueback river herring were sacrificed from the WFL catch for life history information.

The collected biological sampling information from sacrificed adult American Shad and river herring is provided in Appendix G. Additionally, summaries of American Shad mortalities are included in Appendix F.

2.2.2 Conowingo East Fish Lift

2.2.2.1 Staffing

During the 2022 fish passage facility operating season, trained and qualified individuals were on site to operate the East Fish Lift (EFL). The EFL operating crew included a supervising biologist, lift operator, and biological technicians. All fishway operational personnel reviewed and understood the FOMP.

The supervising biologists and lift operators were responsible for operating mechanical and electrical equipment associated with the EFL. The lift operators set the equipment as directed by the supervising biologist. The lift operators adjusted equipment settings throughout the course of each day as hydraulic conditions changed so attraction flows from, and in, the EFL were optimized. The supervising biologists provided technical guidance on all aspects of daily operation at the EFL and were responsible for fine tuning the operation to assure the best possible efficiency. In addition, the supervising biologist was responsible for establishing fishing time and lift frequency, and mobilizing transport units and personnel, which is based on fish abundance that can change throughout the day and the season. The supervising biologist oversaw collection of all data, ensure their accuracy, produced daily and weekly reports, and distributed reports via email to all pertinent Constellation and resource agency personnel.

2.2.2.2 Maintenance

Pre-season maintenance and post-season maintenance measures took place as outlined in the January 24, 2022 version of the FOMP. Work orders are included in Appendix D. Pre-season and post-season maintenance checklists from this work management platform were completed in accordance with the FOMP.

[7] Date Floy tagged provided by Maryland Department of Natural Resources (MDNR).

2.2.2.3 Operation

The 2022 fish passage season at the EFL began on March 23 and continued through June 15[8]. The EFL operated for a total of 818 hours and 17 minutes and completed 1,599 lifts for the 2022 season (Table 2.2.2.3-1). The hours of daily operation, including the starting and ending time of daily fish operations, are listed in Appendix E.

Table 2.2.2.3-1: Summary of Operations at the Conowingo East Fish Lift, March 23 – June 15, 2022

Total Number of Days Operations Occurred	Total Time of Operation (hr:min)	Total Number of Lifts Operated
74	818:17	1,599

2.2.2.3.1 Fish Counts, Transport, and Stocking

A total of 1,467,565 fish of 35 species along with one (1) Splake, and two (2) Tiger Muskellunge hybrids were collected and identified in the EFL sorting tank during the 2022 season.

Target native and non-native fish counts are summarized in Table 2.2.2.3.1-1. The count[9] of all fish species captured at the lift are additionally contained in Appendix E. The number of fish species trapped and transported, including date, time, and location of release is additionally provided in Appendix F.

During the 2022 season, the EFL collected six (6) American Shad (*Alosa sapidissima*) that was previously captured, Floy-tagged and released downstream of Conowingo Dam by MDNR. Per the 2022 FOMP operational guidelines, all re-captured MDNR tagged American Shad from the current year (2022) were transported upriver. Any MDNR tagged American Shad collected from previous years (prior to 2022) were to be sacrificed for study. No MDNR tagged American Shad from previous years were collected in 2022. A summary of Floy-tagged American Shad collected at the EFL is provided in Table 2.2.2.3.1-2.

[8] The EFL did not operate on March 27 and 28, April 10-11, May 8-10, and June 4, 5, 11, and 12, 2022.
[9] During trap and transport operations, the counts are recorded per each lift, not by the hour.

Table 2.2.2.3.1-2: Conowingo East Fish Lift Counts, March 23 - June 15, 2022

Species	Total Collected	Percent of Total Collected	Total Transported	Total Stocked	Total Sacrificed	Holding Mortalities	Lift Mortalities	Transport Mortalities	Whooshh Fish (Test & Control	Transfer Skid
Target Native Species										
Alewife	1	0.00%	0	0	1	0	0	0	n/a	n/a
American Shad	2,283	0.16%	1,846	1,845	45	24	0	1	91	37
Blueback Herring	94	0.01%	40	0	51	0	0	0	n/a	2
Target Non-native Species										
Blue Catfish	8	0.00%	0	0	8	n/a	n/a	n/a	n/a	n/a
Flathead Catfish	0	0.00%	0	0	n/a	n/a	n/a	n/a	n/a	n/a
Northern Snakehead	128	0.01%	0	0	128	n/a	n/a	n/a	n/a	n/a
Dominant Species										
Gizzard Shad	1,456,797	99.27%	0	0	n/a	n/a	n/a	n/a	n/a	n/a
Channel Catfish	2,999	0.20%	0	0	n/a	n/a	n/a	n/a	n/a	n/a
Shorthead Redhorse	1,080	0.07%	0	0	n/a	n/a	n/a	n/a	n/a	n/a
All Species	***1,467,565***									

Table 2.2.2.3.1 2: Summary of Floy-tagged American Shad Collected at the Conowingo East Fish Lift, March 23 - June 15, 2022

Tag Number	Sex of Fish	Date Tagged[10]	Date Collected	Days at Large	Disposition
N/A	N/A	4/27 or 4/29	5/5/2022	6 or 8	N/A
10027	M	5/5/2022	5/19/2022	14	10027
10051	M	5/5/2022	5/20/2022	15	10051
10093	M	5/16/2022	5/20/2022	4	10093
10109	F	5/17/2022	5/27/2022	10	10109
10119	M	5/23/2022	5/27/2022	4	10119

2.2.2.4 Biological Sampling

Life history information (length, weight, sex, spawning condition, scales and otolith samples) was taken from American Shad that were sacrificed or died (lift, holding, or transport mortalities). During the 2022 season, a total of 0 lift mortalities, 24 holding mortalities, and 1 transport mortality of American Shad occurred at EFL. In addition, there were a total of 37 American shad and two (2) blueback herring transfer skid mortalities. Also, there were 91 American shad mortalities from fish that were collected and held for potential use in the American Shad pneumatic transport system study. These fish were not actually used in the study data. See 100% survival of test fish in Table 2.2.2.4.1.-1. A total of 45 American Shad were sacrificed from the EFL catch for life history information, comprised of 27 males and 18 females.

Several river herring, (1 Alewife (*Alosa pseudoharengus*) and 94 Blueback Herring (*Alosa aestivalis*)) were collected during the 2022 season. A total of 1 alewife and 51 blueback river herring were sacrificed from the EFL catch for life history information.

The collected biological sampling information from sacrificed adult American Shad and river herring is provided in Appendix G. Additionally, summaries of American Shad mortalities are included in Appendix F.

2.2.2.4.1 Gizzard Shad and American Shad Whooshh System Testing Summary

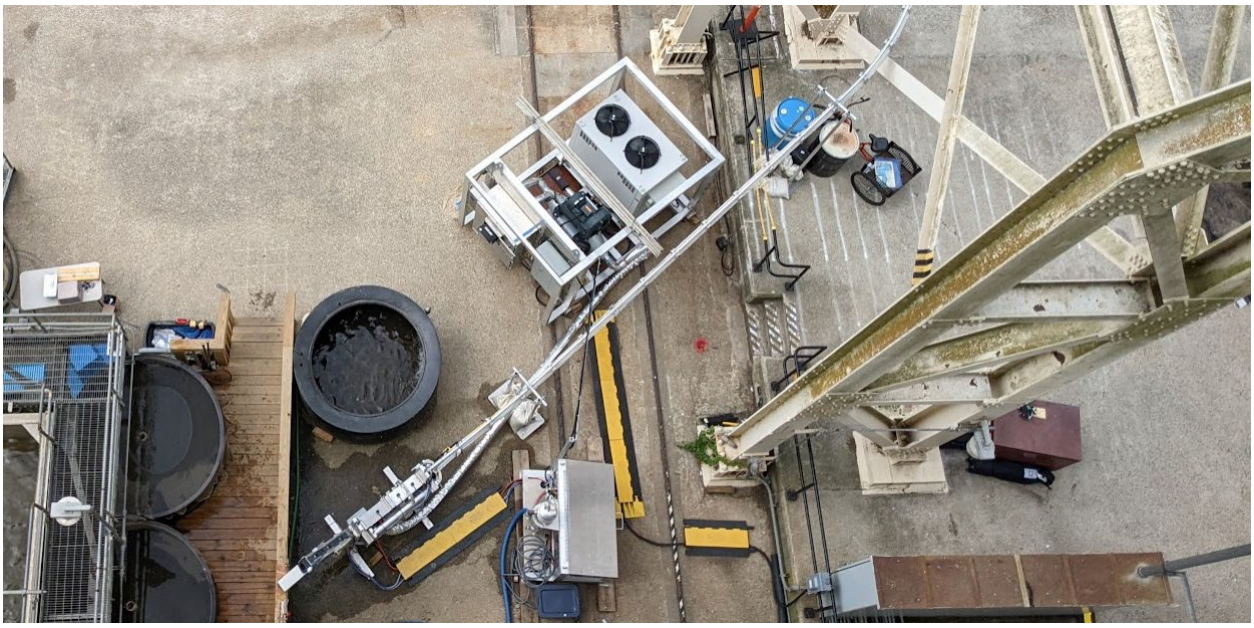
A custom hand fed pneumatic American Shad transport system was installed on the downstream face of the Conowingo Dam as a means of transferring live adult American Shad from the EFL to the WFL (Figure 2.2.2.4.1-1). The shad transport system goals were to reduce transport time of American Shad from the EFL to the WFL, streamline the American Shad handling and manual loading process, improve operational safety in the powerhouse, and was evaluated for reduced fish stress as measured by mortalities. A single Whooshh Migrator™ T-123 sized tube was selected for the 2022 test evaluation, to ensure passage of the largest American shad anticipated based on historical size data. Gizzard and American Shad actually used in the studies per study protocol are described below in Table 2.2.2.4.1-2.

[10] Date Floy tagged provided by Maryland Department of Natural Resources (MDNR).

Pre-American Shad: Test Results – Gizzard Shad at Conowingo

A Gizzard Shad test was conducted in advance of the American Shad arrival in the spring of 2022, utilizing the Gizzard Shad as a surrogate for American Shad passage assessment. American Shad and river herring species are sensitive, they do no fair well when held for multiple days, they lose scales when handled and hemorrhage easily, including when held in a tank or container for extended periods. The Whooshh Innovations Inc. made American Shad transport system was used and tested for safe passage as compared to an EFL tank held, non-transferred, control group of Gizzard Shad.

Figure 2.2.2.4.1-1. American Shad Study Handling Transfer Area



The pre-test and separate testing of Gizzard Shad were completed before drafting the operational protocol and transitioning to the American Shad testing. Gizzard Shad were collected at the EFL, and the height of each fish was measured for suitability for transport through the American Shad T-123 transport system. The Gizzard study protocol defined the transport fish size limits, blower speed settings for safe passage and re-entry speed into the WFL receiving tank, holding time <48 hours (spanning fish lift, sorting tank, transport and overnight tank hold), randomization of study group fish with test and control group sizes ~equal. After each fish was measured, Floy-tagged, and quickly assessed for any injuries, it was placed in a holding tank at the EFL until enough fish were tagged and documented for passage through the Whooshh system.

On any day, once the Whooshh system was turned on and readied for fish transport, each fish was carefully netted, Floy tag number recorded, then alternately placed in the Whooshh system and transported to the WFL receiving tank ("Test Fish") or an EFL control holding tank without transport ("Control Fish"). Fish were held overnight, and on the following morning all fish in the EFL control and WFL test holding tanks were inspected for injuries and/or mortality.

For the Gizzard Shad pre-test, a total of 196 fish were sent through the Whooshh system and 195 fish were placed in the control holding tank. During the post-assessments the next day, all transported test and all control fish were observed to be alive, however some of the test fish had additional observed injuries. The

purpose of the pre-test period was to apply adaptive management processes, to identify potential injury sources, and to make system adjustments to optimize the conditions for safe passage of Gizzard Shad.

Actual Gizzard Shad testing of the Whooshh system occurred on April 9 and 13 (Table 2.2.2.4.1-1). A total of 103 test fish were released through the Whooshh system and 105 control fish were placed in the control holding tank on April 9. Post-assessment on April 10 revealed 102 alive test and 105 alive control fish. One fish was removed because it was dropped when placing it into the Whooshh system. An additional test was conducted on April 13, when 110 test and 110 control fish were utilized. Post-assessment on April 14 revealed 109 alive and 1 dead test fish. All control fish were alive at the post-assessment. It was determined that there was no statistical difference between the control fish and the test fish and the American shad study could go forward.

Changes made prior to American Shad Testing

After the completion of the Gizzard Shad testing, a very small number of American Shad started to be collected at the fish lifts. April 21-23, with only five American Shad available at the EFL, Whooshh personnel adapted the system to the profile of American Shad: tube rails adjusted, fish size limits with specific blower speeds defined to ensure safe passage and safe tube exit speeds which were added to the American Shad protocol. With the limited numbers of American Shad available for system calibration, the collected fish were recycled and re-used for repeated tube transport. As for the Gizzard Shad, there was an American shad pre-test phase wherein the testing procedure was modified to facilitate protocol test conditions were met. Active adaptive management of the on-site procedures to ensure normal system operation, such as increasing the frequency to daily replacement of the tube misting filters, after a higher water event increased trapped sediment and reduced tube misting performance when not maintained daily, was observed during the testing phase for American Shad.

Note: the average width of the American Shad is substantially larger than that of the average Gizzard Shad, however, it was only learned and confirmed on site by Whooshh personnel that the average size of the American Shad has been decreasing in the last decade resulting in a 2022 American Shad population that was generally too small for optimal passage through the installed T123 tube, which had been selected based size data collected more than a decade prior. Not having a smaller T-105 tube installed meant that for study purposes only the larger American Shad, appropriate for the T-123 tube could be properly evaluated.

American Shad Test Procedures at Conowingo

American Shad were collected at the EFL, and the height of each fish was measured to thereby approximate the fish girth size and suitability for the installed T-123 tube. [Typically girth size is automatically measured by the Whooshh FishL™ Recognition system, but it was determined that in 2022 such function would be performed manually, and the delivered Whooshh FishL Recognition system would be used to collect images of invasive species for potential future sorting algorithm AI use]. After each fish was measured, Floy-tagged, and visually assessed for any injuries, it was placed in a separate holding tank at the EFL until enough appropriately sized American Shad were tagged and documented for (i) passage through the test transport system and (ii) the control group.

American Shad collected and transported on May 4th through May 17th define the American Shad study period. As the American Shad testing continued over an extended number of days due to low count numbers at the EFL as well as lack of shad that were the proper size for the tube, it was determined that the extra handling during height measurements, Floy tagging, and injury assessment was adding extra stress to the fish. Therefore, as water temperatures increased, only the American Shad minimum height was checked to

make sure the fish was suitable for the T-123 sized transport system. Unfortunately, during this time there was a high-water event that shut down the EFL and WFL for a week with the American shad returning slowly and in smaller numbers, thereafter, limiting American Shad availability. An agency demonstration day was planned May 18-19 and the few American shad captured over the previous days were held to ensure some fish availability for the demonstration. On the demonstration days, all the collected fish were transported through the Whooshh system. No fish were held as controls and the overall study operational protocol was not strictly followed. In addition, during morning testing on the demonstration day, there was a miscommunication as to the readiness status at the WFL receiving tank and fish were transported to a WFL holding tank without adequate water, causing injury and impacting survival. This further reduced the available test fish and control fish. For these reasons, the fish used for the demonstration day were excluded from the study period.

American Shad Test Results at Conowingo

Presented below are the data for which complete datasheets recorded by Normandeau were paired with Whooshh autonomously generated control system transport data. Note the dates correspond to the date of fish group assignment as test (Whooshh transport) or control (EFL hold). These encompass the dates May 4 through May 17, 2022 and exclude all demonstration day data for the reasons described in the previous section. The known histories of the American Shad that were transported through the Whooshh system and the control American shad that were held without transport are presented. The American Shad where the study protocol were achieved are presented in Table 2.2.2.4.1-2 below.

Of the total 144 control and test fish that satisfied the study protocol criteria, 96% of the control American Shad survived and 100% of the Whooshh test shad transport system fish survived. Table 2.2.2.4.1-2 data only includes test and control fish that were collected and handled per study protocol. Study Protocol specifications met were:

- Fish size (height)
- Fish holding time
- Blower speed setting with specified range
- Correct equipment operation
- Comparable Test and Control groups
- Randomization of group assignment

The individual fish data and calculations are shown in Table 2.2.2.4.1-2.

Summary Results

The study plan goals were two test scenarios of 50 American Shad per test/control group, but only after the first 50 pre-test American Shad to work through operational familiarity and system installation adjustments from Gizzard Shad to American Shad. The low American Shad fish counts at EFL and available for the study meant that more test days, with smaller numbers and batches, were conducted in an attempt to achieve a total evaluation > 100 fish per group, while maintaining the protocol defined conditions related to fish size, fish holding time, blower speed, proper equipment operation, comparable test and control groups, and randomization of group assignment. The Per Protocol data set numbers did not quite achieve the 100 fish

count (Table 2.2.2.4.1-2, 67 test and 77 controls). However, the 100% test group survival and 96% control group survival rates of the Per Protocol data suggest that the Whooshh system provides safe, rapid, effective, and efficient fish passage after approximately 900 feet of transport.

Table 2.2.2.4.1-1. Gizzard Shad testing through the Whooshh System at Conowingo Dam, Spring 2022

Release Date	Release Time (hr)	Test/Control	Number	Post Assessment		Alive	Dead
				Date			
4/9/2022	1315-1445	Test	103	4/10/2022	All fish checked after overnight holding period.	102	1*
	1315-1445	Control	105	4/10/2022	All fish checked after overnight holding period.	105	
4/13/2022	1230-1400	Test	110	4/14/2022	All fish checked after overnight holding period.	109	1
	1230-1400	Control	110	4/14/2022	All fish checked after overnight holding period.	110	

* Fish removed from sample size due to being dropped.

Table 2.2.2.4.1-2. American Shad Study and Control per Study Protocol – Number and Percentage

Passage Assignment Date	Study Group	Alive	Mortality	Per Protocol Survival (%)
5/4/2022	Control Fish Test Fish	14 12	0 0	
5/5/2022	Control Fish Test Fish	14 0	2 0	
5/6/2022	Control Fish Test Fish	23 24	1 0	
5/7/2022	Control Fish Test Fish	7 7	0 0	
5/13/2022	Control Fish Test Fish	0 0	0 0	
5/14/2022	Control Fish Test Fish	7 9	0 0	
5/15/2022	Control Fish Test Fish	0 0	0 0	
5/16/2022	Control Fish Test Fish	12 14	0 0	
5/17/2022	Control Fish Test Fish	0 1	0 0	
DEMO Days Excluded – no controls, atypical operation process				
Per Protocol Total	**Control Fish**	**77**	**3**	**96%**
Per Protocol Total	**Test Fish**	**67**	**0**	**100%**
Total Protocol		**144**	**3**	

[Note: Two additional tables are presented in Appendix H which include American Shad which did not meet the study protocol criteria for one or more reasons (e.g., were held too many days prior to test/assessment). It was determined that the data presented in the two tables in Appendix H cannot be included in study test results in Table 2.2.2.4-.1-2 above without introducing variable uncertainty. Further, there are no "Unknown fish group" or "Unknown Status" data included in in any table in this report for fish collected at the EFL for potential use in the American Shad study. Total American Shad count recorded by on site personnel included a total of 152 unknown fish and 149 of unknown status at the EFL. These "unknown" fish are excluded from the study and have been omitted for purposes of this test/study report but are referenced in Appendix H, but only for the purposes of providing insight into the total American Shad EFL counted by on-site personnel. For these reasons, only the data presented in Table 2.2.2.4.1-2 above should be relied upon for the American Shad Study, and not the additional data presented in the tables in Appendix H.]

2.2.3 Conowingo West Eel Collection Facility

The Conowingo West Eel Collection Facility (CWECF) was operated as described in the January 24, 2022 FOMP. Operation began on May 1, 2022 and continued to November 20, 2022.

2.2.3.1 Staffing

Trained and qualified individuals operated the facility throughout the eel passage season. A supervising biologist oversaw all operations with the assistance of biologists and biological technicians. Daily facility checks were completed by a crew of two trained personnel. All personnel had reviewed and understood the FOMP.

2.2.3.2 Maintenance

Pre-season Maintenance

In April 2022, all eel passage facility components, including the eel ramp, collection, overflow, and holding tanks, as well as the associated water lines were installed and tested. All components were in working order before the facility was placed into service on April 30, 2022.

Post-season Maintenance

After the season ended on November 20, 2022, the eel facility components were dismantled, cleaned and stored. The collection, overflow, and holding tanks, as well as the water lines were stored appropriately for the winter period.

2.2.3.3 Operation

Throughout the 2022 season, the eel passage facility monitoring crew notified pertinent Station personnel of their arrival each day, conducted a pre-job safety briefing, informed the Station that eel passage operations will commence, and asked for a dissolved oxygen (DO) tailrace reading and if any issues have been recorded since completion of the last eel passage facility check.

Flow rates for the trapping, collecting, and holding processes are the primary metric used to evaluate whether the facility is operating within design parameters. If flows are within the design parameters, then the facility would be operating properly. Additionally, continuous measurements of water temperature and dissolved oxygen as well as visual inspections during daily operation determine if the facility is operating normally and that conditions are suitable for collecting and holding juvenile eels. The continuous monitors are equipped with alarms that alert personnel when any of the measured parameters are not within design parameters. The proper operation of the continuous monitors and associated alarms was verified regularly. When daily eel sampling was complete, the eel passage facility monitoring crew notified pertinent Station personnel of any major changes to the facility and that the crew is leaving the site.

There were no significant problems encountered with the trapping, collecting, or holding systems. The total attraction flow of the facility varied throughout the season dependent upon which tanks were in-service, but an attraction flow was always being discharged down the ramp and shoreline. Periodically throughout the season, low flow alarms did occur. Slight adjustments made to the individual tank feed pipes to adjust the output to these feed pipes to obtain a constant water flow into the tanks resolved this issue. Cleaning and calibration activities were conducted at least weekly during the season. Table 2.2.3.3-1 provides a summary of the alarm notifications and corrective action taken during the season.

The statistics of the operational parameters for the main components of the CWECF are provided in Table 2.2.3.3-2. The total attraction flow, collection tank fill, and collection tank drain information was

collected as part of the calibration of flows at the CWECF. Calibration of the ramp flow was executed each week after cleaning, using a 19-L graduated bucket. Multiple locations at the facility were checked for calibration purposes - the spray bar, the collection tank fill and drain, scent line, and the drains of each of the holding tanks that were in-service. Some of the water from the spray bar that was not used for attracting eels up the ramp but used to help slide eels into the collection tank was identified as the backside of ramp flow. The backside of ramp flow was calculated by adding the scent line to the collection tank drain and subtracting the collection tank fill. The attraction flow at the top of the ramp (top attraction) was calculated by subtracting the backside of ramp flow from the spray bar amount. Bottom of ramp attraction is a sum of the collection tank drain and the drains of the in-service holding tanks. Total attraction flow is equal to the collection tank fill, the spray bar and the drains of the holding tanks. Details and calibration records are provided in Appendix I. After calibration readings were taken adjustments, if necessary, were made to the facility to ensure that at least 70 gallon per minute (gpm) of attraction flow was provided.

Daily temperature measurements were taken in the CWECF collection tank and the dissolved oxygen records were collected from the Project control room (Station 643).

2.2.3.3.1 Eel Counts, Transport and Stocking

A total of 120,755 American Eel (*Anguilla rostrata*) were collected and 120,666[11] were stocked within the Susquehanna River watershed. Figure 2.2.3.3.1-1 provides a summary of the annual American Eel catches at the CWECF from the 2017 through 2022 seasons. There was a total of 50 mortalities observed during collection and 215[12] (0.5% mortality) juvenile eels were recovered dead from the holding tanks over the entire season.

The CWECF data required as part of this annual report (i.e., the estimated number of juvenile eels captured each day, number of eels in the holding tanks, and calibration records) has been extracted from the 2022 Conowingo West Eel Collection Facility report and are provided in Appendix J.

Table 2.2.3.3-1. Conowingo West Eel Collection Facility 2022 Alarms and Corrective Actions

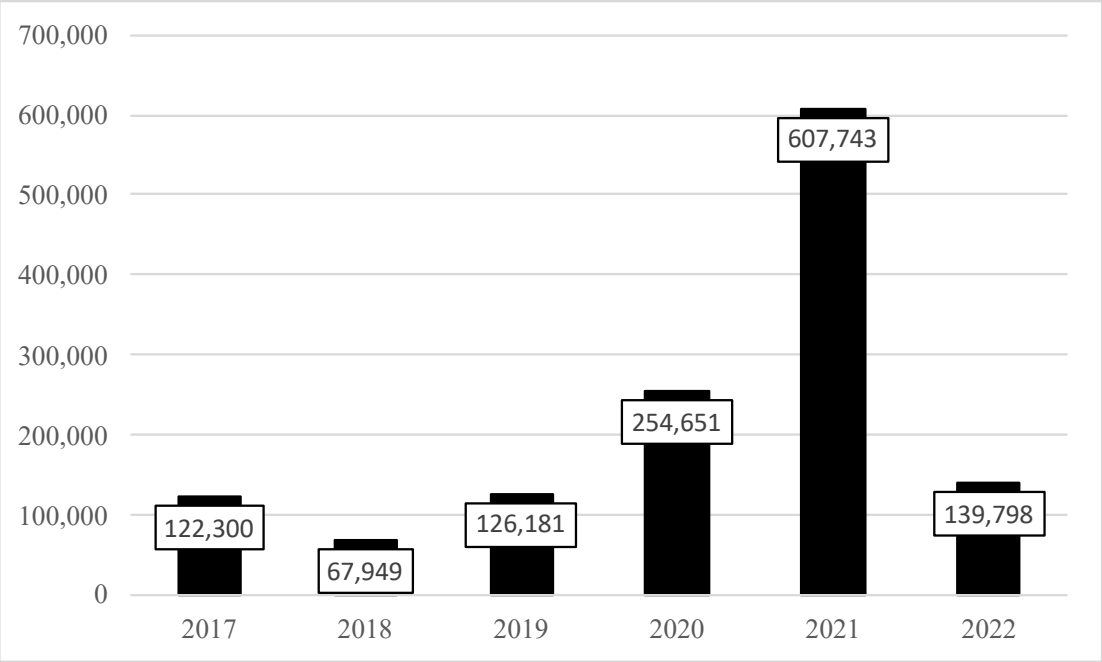
Date	Time	Alarm	Corrective Action
6/3/2022	1805	Collection Tank- low DO	Replaced Malfunctioning DO/Temp Probe
7/22/2022	0748	Collection Tank - low flow	Increased flow into tank
7/22/2022	1034	Collection Tank - low flow	Increased flow into tank
7/22/2022	1036	Holding Tank - low DO	False alarm, tank was disabled, no eels being held
7/22/2022	1040	Collection Tank - low flow	Increased flow into tank
7/25/2022	0815	Collection Tank - low DO	Alarm occurred when probe was out of water when removing eels during daily check
8/8/2022	0654	Holding Tank 1 - low DO	Changed an oxygen bottle
8/24/2022	0757	Collection Tank - low flow	Increased flow into tank
9/8/2022	1556	Collection Tank - low flow	Increased flow into tank

[11] American Eels collected from Constellation's Octoraro Creek Eel Collection Facility are included in this total.
[12] American Eels collected from Constellation's Octoraro Creek Eel Collection Facility are included in this total.

Table 2.2.3.3-2. Conowingo West Eel Collection Facility 2022 Operations Summary

Operational Parameter	Maximum Value	Average Value	Minimum Value
Total Attraction Flow (gpm)	87.8	69.5	44.9
Collection Tank Fill (gpm)	28.0	15.7	8.5
Collection Tank Drain (gpm)	27.5	16.3	9.0
Collection Tank Temperature (°F)	86.0	72.0	45.1
Dissolved Oxygen at Station 643 (mg/L)	12.9	8.2	5.6

Figure 2.2.3.3.1-1: Annual Number of Eels Captured at the Conowingo West Eel Collection Facility, 2017-2022



3 DEVIATIONS

Aside from the turbine operation sequence deviations noted in Section 2.1.3, operations data is missing and not available from the Project operational records for September 27, 2022, and is therefore not included in Appendix C. The Conowingo upstream fish passage facilities experienced no deviations from the approved January 24, 2022 FOMP during the 2022 fish passage season, and operations and maintenance of the facilities were conducted in conformance with the FOMP.

4 PROPOSED MODIFICATIONS

No major modifications are proposed for the 2023 fish passage at either the EFL, WFL, or CWECF. The Resource Agencies and Constellation agreed that Constellation will continue to implement sorting of all fish that enter the EFL and WFL, and no volitional passage will occur.

The EFL and WFL will be operated for trap and transport using existing sorting and holding tank(s). In accordance with the License conditions, Constellation will trap and transport up to 80% of the American Shad and river herring run above York Haven Dam (RM 56.1). However, the remaining portion of the American Shad and river herring run will be transported and discharged upstream of the Safe Harbor Dam (RM 32.2), rather than pass volitionally. To accomplish this, Constellation will transport American Shad and river herring from every fifth transport (20%) above Safe Harbor Dam, and the remaining four transports (80%) will be made above York Haven Dam. As the season progresses, the transport targets will be assessed on a weekly basis, and transports will be adjusted as needed to achieve the 80%/20% proportion

Constellation will also continue to monitor and remove the following invasive species during the 2023 fish passage season: Northern Snakehead (*Channa argus*), Blue Catfish (*Ictalurus furcatus*), and Flathead Catfish (*Pylodictis olivaris*). These species will be managed in accordance with Article 419 of the new license, paragraphs (b), (c), and (d) specifically collecting these species from both the EFL and WFL and placing them in totes and in a freezer that will be provided by MDNR. MDNR will remove the totes and beneficially reuse the aquatic invasive species. Constellation will also begin to monitor and alert the Resource Agencies if any of the following invasives are observed in the EFL or WFL during the 2023 fish passage season: Silver Carp (*Hypophthalmichthys molitrix*), Bighead Carp (*Hypophthalmichthys nobilis*) and Grass Carp (*Ctenopharyngodon idella*).

5 REFERENCES

Exelon Generation Company, LLC. (2016). *Conowingo Hydropower Project Settlement Agreement Between Exelon Generation Company, LLC and the United States Department of the Interior Fish & Wildlife Service.*

Exelon Generation Company, LLC and the Maryland Department of the Environment. (2019). *Joint Offer of Settlement and Explanatory Statement Of Exelon Generation Company, LLC and the Maryland Department of the Environment.*

Federal Energy Regulatory Commission. (2015). *Final Multi-Project Environmental Impact Statement For Hydropower Licenses.* Federal Energy Regulatory Commission, Office of Energy Projects, Division of Hydropower Licensing. Washington, DC: Federal Energy Regulatory Commission.

APPENDIX A. FLOW DATA USGS MARIETTA GAGE

Appendix A. Flow Data USGS Marietta Gage

Date	Average Daily Flow (cfs)
3/22/2022	94,604
3/23/2022	86,963
3/24/2022	75,758
3/25/2022	66,096
3/26/2022	60,633
3/27/2022	58,296
3/28/2022	57,275
3/29/2022	54,338
3/30/2022	49,529
3/31/2022	45,529
4/1/2022	48,508
4/2/2022	60,458
4/3/2022	65,600
4/4/2022	61,988
4/5/2022	58,858
4/6/2022	54,654
4/7/2022	57,871
4/8/2022	83,950
4/9/2022	125,496
4/10/2022	145,875
4/11/2022	132,792
4/12/2022	113,208
4/13/2022	96,458
4/14/2022	81,483
4/15/2022	72,858
4/16/2022	65,854
4/17/2022	59,258
4/18/2022	54,767
4/19/2022	59,696
4/20/2022	66,342
4/21/2022	71,692
4/22/2022	73,842
4/23/2022	79,404
4/24/2022	80,008
4/25/2022	77,954
4/26/2022	72,158
4/27/2022	64,763
4/28/2022	57,700
4/29/2022	51,504
4/30/2022	46,363
5/1/2022	42,333
5/2/2022	39,446
5/3/2022	36,763
5/4/2022	35,708
5/5/2022	36,288
5/6/2022	40,888

Date	Average Daily Flow (cfs)
5/7/2022	87,458
5/8/2022	170,833
5/9/2022	168,250
5/10/2022	128,167
5/11/2022	97,738
5/12/2022	84,046
5/13/2022	69,959
5/14/2022	58,952
5/15/2022	52,671
5/16/2022	48,632
5/17/2022	45,229
5/18/2022	44,098
5/19/2022	44,038
5/20/2022	42,685
5/21/2022	40,738
5/22/2022	38,877
5/23/2022	38,917
5/24/2022	34,467
5/25/2022	31,165
5/26/2022	28,742
5/27/2022	26,504
5/28/2022	26,138
5/29/2022	25,277
5/30/2022	23,883
5/31/2022	22,879
6/1/2022	20,940
6/2/2022	19,973
6/3/2022	19,894
6/4/2022	20,979
6/5/2022	22,269
6/6/2022	20,402
6/7/2022	18,100
6/8/2022	16,688
6/9/2022	16,527
6/10/2022	22,042
6/11/2022	25,346
6/12/2022	24,285
6/13/2022	23,590
6/14/2022	23,521
6/15/2022	21,165

APPENDIX B. WATER QUALITY DATA

Date	Daily Avg. DO (mg/L)	Daily Avg. Water Temperature (°F)
3/22/2022	11.4	51.1
3/23/2022	11.0	50.4
3/24/2022	11.1	50.9
3/25/2022	12.4	50.4
3/26/2022	11.7	49.6
3/27/2022		
3/28/2022		
3/29/2022	11.1	46.6
3/30/2022	11.9	44.1
3/31/2022	13.1	43.7
4/1/2022	13.1	45.9
4/2/2022	12.2	46.0
4/3/2022	11.8	48.6
4/4/2022	12.8	49.1
4/5/2022	11.7	49.1
4/6/2022	10.8	49.5
4/7/2022	11.0	48.9
4/8/2022	11.1	50.7
4/9/2022		
4/10/2022		
4/11/2022		
4/12/2022		
4/13/2022	12.3	52.3
4/14/2022	12.0	54.1
4/15/2022	10.8	55.9
4/16/2022	11.1	57.4
4/17/2022	10.3	56.8
4/18/2022	10.3	55.9
4/19/2022	9.6	53.6
4/20/2022	10.4	53.4
4/21/2022	11.5	51.6
4/22/2022	12.1	52.5
4/23/2022	11.4	53.2
4/24/2022	11.4	54.5
4/25/2022	10.6	56.3
4/26/2022	10.7	57.0
4/27/2022	10.7	56.5
4/28/2022	11.1	55.8
4/29/2022	10.8	55.6
4/30/2022	10.3	56.1
5/1/2022	10.4	54.7
5/2/2022	10.8	55.0
5/3/2022	10.7	55.2
5/4/2022	9.6	59.7
5/5/2022	10.9	55.8
5/6/2022	10.3	54.3

Date	Daily Avg. DO (mg/L)	Daily Avg. Water Temperature (°F)
5/7/2022	10.1	60.2
5/8/2022	10.2	58.1
5/9/2022	10.6	55.2
5/10/2022	10.8	56.2
5/11/2022	10.6	57.5
5/12/2022	10.4	58.5
5/13/2022	10.2	58.6
5/14/2022	10.0	58.8
5/15/2022	9.8	58.8
5/16/2022	9.2	59.4
5/17/2022	9.3	59.7
5/18/2022	9.3	65.1
5/19/2022	9.1	65.3
5/20/2022	8.9	61.3
5/21/2022	8.5	61.9
5/22/2022	8.4	62.6
5/23/2022	7.9	71.8
5/24/2022	8.1	63.0
5/25/2022	7.9	72.3
5/26/2022	7.9	73.0
5/27/2022	7.0	72.9
5/28/2022	8.5	73.4
5/29/2022	8.7	73.9
5/30/2022	8.2	73.9
5/31/2022	8.9	73.9
6/1/2022	9.0	75.7
6/2/2022	8.8	76.1
6/3/2022	8.7	77.0
6/4/2022	8.6	77.8
6/5/2022	8.5	77.9
6/6/2022	8.2	78.1
6/7/2022	6.4	79.0
6/8/2022	8.2	79.9
6/9/2022	7.9	79.3
6/10/2022	7.3	79.0
6/11/2022	8.2	79.1
6/12/2022	8.3	78.1
6/13/2022	7.7	78.4
6/14/2022	7.7	77.0
6/15/2022	8.0	79.0

APPENDIX C. PROJECT OPERATIONS DATA- CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE BUSINESS CONFIDENTIAL

APPENDIX D. CONOWINGO WEST AND EAST FISH LIFT MAINTENANCE WORK ORDERS

Facility: SEC CONOWINGO HYDROELECTRIC GENERATING
Unit : CONENV Project : 100AOBSLP
W/O Type: MO Priority: C1 W/O Dspln: O
Planner : U003DM0 MCKEOWN D J
W/O Title : CONOWINGO - WINTER READINESS
W/O Task Title: C - EFL REMOVAL OF EQUIPMENT FOR WINTERIZATION
Written To : EAST FISH LIFT
Task Dspln : O Due Date: 11/15/03 Late Date:

Work Order Package

99243952 08

Constellation

Work Order Task Written To

Facility : SEC
Division :
Equipment : LIFT EAST FISH
Work Item :
Equip. Tag:
UTC :
Catalog ID:
Client/Act:
Location :
Location 2:

PMRQ :
Unit : CONENV
Area :
Component:
Eqt. List:
Alt:
Tbl/Brkdwn: (Past 12 mo)
Job Type : PM UCR:

PM Cat Cd:
Op Sys :
Sys/Cls: EFT
Ops Review Reqd: N

EAST END OF POWERHOUSE

Signature/Authorization/Approval/Review:

	Name	Date	Time
Shift Authorization to start work :			
Work Started :			
Work Stopped :			
Supv Review of Work Completion :			
ANI Review of work package :			

Work Order Task Instructions

Verify that the model work order #98302153 to remove the E.F.L. equipment is scheduled to work for winter readiness.
Remove EFL Cylinders.
Remove EFL Cameras.
Remove EFL Trough Plugs
Rebuild EFL Cylinders.
EFL Electrical Components
EFL Dog Hoist Screens
Open EFL Air Lines and Remove Filters.

Rework/Approval

Deficiency Tag No.: Loc: Tag Removed:
ReWork Job : N Comments:

Post Maintenance Test Info

PMT Work Order/Task:

QC Requirements/Comments

NO QC REQUIREMENTS FOR THE WORK ORDER TASK

Major Failure/Action Taken

Major Failure :
Deficiency Tag Loc:
Deficiency Tag No.:
Action Taken :
Removed (Y/N):
Limited Cond Operation:

Work Performed

DESCRIBE AS FOUND SYSTEM CONDITIONS:

DESCRIBE AS FOUND EQUIPMENT CONDITIONS (Circle One:)
(A)Better than Expctd) (C)As-Expctd (D)Worse than Expctd (F)Failed (N)N/A

WORK PERFORMED:

Continued on Additional Sheets? _

Facility: SEC CONOWINGO HYDROELECTRIC GENERATING
Unit : CONENV Project : 107HREONM
W/O Type: MM Priority: C2 W/O Dspln: S
Planner : E060898 JASPER JR M G
W/O Title : EAST FISH LIFT START UP
W/O Task Title: EAST FISH LIFT START UP
Written To : EAST FISH LIFT
Task Dspln : S Due Date: Late Date:

Work Order Package

99636780 01

Constellation

Work Order Task Written To

PMRQ : PM Cat Cd:
Facility : SEC Unit : CONENV Op Sys :
Division : Area : Sys/Cls: EFT
Equipment : LIFT EAST FISH Component:
Work Item : Eqt. List: Ops Review Reqd: N
Equip. Tag: Alt:
UTC : Tbl/Brkdwn: (Past 12 mo)
Catalog ID: Job Type : PM UCR:
Client/Act:
Location : EAST END OF POWERHOUSE
Location 2:

Signature/Authorization/Approval/Review:	Name	Date	Time
Shift Authorization to start work :			
Work Started :			
Work Stopped :			
Supv Review of Work Completion :			
ANI Review of work package :			

Work Order Task Instructions

1.---PROVIDE FOR DIVER INSPECTION OF SLOPED AREA OUTSIDE OF FISH ENTERANCE GATES. CHECK FOR ACCUMULATION OF SEDIMENT, ROCKS ETC.
**********NOTE**********
THIS WORK TO BE SCHEDULED AND COMPLETED IN CONJUNCTION WITH WEST FISH COLLECTOR DIVER WORK.
.
2.---UNWATER FISH TRAP FOR INSPECTION AND REPAIR OF ALL LOWER COMPONENTS LUBRICATE ALL LOWER COMPONENTS AS REQUIRED.
.
3.---OPEN MAIN AIR SUPPLY VALVE AND PURGE SYSTEM.
.
4.---CROWDER
A.--CHECK ALL AIR LINES AND CONNECTIONS.
B.--LUBRICATE ALL CABLES, SHEAVES AND PULLEYS, WHEELS AND ALL CROWDER MOVING PARTS AND MATING SURFACES.
C.--RE-INSTALL CROWDER AIR CYLINDERS AND CHECK OPERATION.

D.--OPERATE AND LUBRICATE CROWDER DOORS AND DRIVE ASSEMBLY.
CHECK / ADJUST ALL LIMITS AND STOPS.
E.--CHECK / CORRECT TAKE-UP ON HOSE REELS. LUBRICATE AS REQUIRED.

.

5.---HOPPER
A.--LUBRICATE ALL CABLES, SHEAVES, WHEELS AND ALL HOPPER MOVING PARTS AND MATING SURFACES.
B.--CHECK CONDITION OF HOPPER AIR HOSES AND CONNECTIONS.
C.--RAISE HOPPER TO TROUGH GATE. CHECK ALL LIMITS AND STOPS. LUBRICATE AS REQUIRED.
D.--INSPECT HOPPER CHECK VALVES, GRATING AND SCREENING.
E.--RE-INSTALL ALUMINUM SLIDE PLATES.
F.--RE-INSTALL HOPPER AIR CYLINDERS.
G.--OPERATE HOPPER DUMP DOORS AND INSPECT FOR WEAR OF SEALS. REPAIR AS NEEDED.

.

6.---GATES, SCREENS AND TRASH RACKS
A.--CHECK ALL SETTINGS ON GATES, RACKS AND SCREEN LIMIT AND TORQUE SWITCHES. ADJUST AS REQUIRED. PROVIDE A WRITTEN REPORT OF AS-FOUND AND AS-LEFT SETTINGS.
B.--INSTALL ALL TRASH RACKS AND SCREENS.
C.--EXERCISE GATES, SCREENS AND RACKS. CLEAN AND LUBRICATE STEMS AND DRIVE OPERATORS.
D.--LUBRICATE MAIN HOPPER HOISTS, TRASH RACK HOIST, SCREEN HOISTS AND MONORAIL HOISTS.
E.--EXERCISE HANDWHEEL OPERATED TRASH RACKS AT HEADWORKS TRASH GATE.

7.---SORTING TANK WATER SUPPLY SYSTEM.DISREGARD THIS SYSTEM NOT IN USE
A.--RE-INSTALL CASING PLUGS IN PUMP CASING.
B.--LUBRICATE PUMP AS REQUIRED.
C.--OPEN MAIN SUPPLY VALVE AND START-UP TANK WATER SUPPLY.
D.--RE-ADJUST PUMP PACKING AS REQUIRED.
E.--TEST SPRAYERS AND INSTALL STRAINERS.

. DISREGARD THIS SYSTEM NOT IN USE.| 8&9 ¢

8.---PRIOR TO INSTALLATION OF STEEL PLATES "BURY"/ STORE TAILRACE STOPLOGS. *NOT IN 1997 - B.P.

9.---INSTALL SIX (6) STEEL PLATES BETWEEN STOPLOG CRANE RAILS AT FISH TRANSFER AREA. INSTALL PORTABLE RAMP FOR FORK TRUCK.*NOT IN 1997

.

10.--INSTALL VIEWING WINDOW GATE CYLINDER AND TEST.

. .

11.--CLEAN ELEVATION MARKERS.

. THE MAIN BREAKER AND EACH INDIVIDUAL BREAKER FOR THE ACTUATORS, SCREENS AND HOIST ARE IN THE GRAY BREAKER CABINET ON 48ELV. NEXT TO THE LIFT.THE MAIN BREAKER ALSO FEEDS THE CONTROL ROOM CAMERA ON TOP OF THE LIFT. IF YOU HAVE TO SHUT THE MAIN OFF NOTIFY THE CONTROL ROOM OPERATOR.

Rework/Approval

Deficiency Tag No.: Loc: Tag Removed:
ReWork Job : Comments:

Work Order: **99639609 02** Date: 11/10/22 Page: 1

Facility: SEC CONOWINGO HYDROELECTRIC GENERATING
Unit : CONENV Project : 100FHLFTP
W/O Type: PM Priority: C2 W/O Dspln: S
Planner : U002SAD XXINACTIVE-DELP S A
W/O Title : C- WEST FISH LIFT START UP PM
W/O Task Title: W.F.L. START UP
Written To : WEST FISH LIFT
Task Dspln :

Work Order Package

99639609 02

Due Date: 04/07/22 Late Date:

Constellation

Work Order Task Written To

Facility : SEC
Division :
Equipment : LIFT WEST FISH
Work Item :
Equip. Tag:
UTC :
Catalog ID:
Client/Act:
Location :
Location 2:

PMRQ :
Unit : CONENV
Area :
Component:
Eqt. List:
Alt:
Tbl/Brkdwn: (Past 12 mo)
Job Type : PM UCR:

PM Cat Cd:
Op Sys :
Sys/Cls: WFT
Ops Review Reqd:

WEST END OF POWERHOUSE

Signature/Authorization/Approval/Review:

	Name	Date	Time
Shift Authorization to start work :			
Work Started :			
Work Stopped :			
Supv Review of Work Completion :			
ANI Review of work package :			

("Work Started" date above shall be the "Credit Date" unless otherwise explained)

Complete one of the following:

Verify Credit Date

_____
_____
_____

****Credit Predefine Per another WO#** _____

- ☐ Complete Sat - Credit Predefine
- ☐ Complete w/Portions Unsat - Credit Predefine
- ☐ No Work Performed - Credit Predefine
- ☐ * Failed - Do Not Credit
- ☐ * No Work Performed - Do Not Credit
- ☐ * Partial - Do Not Credit
- ☐ Comments: _____

* Predefine Due/Late Dates will NOT advance
** If crediting per-another-WO# verify "Credit Date" is "Work Started Date" of the referenced WO#.

Work Order Task Instructions

**********PPE'S REQUIRED**********.

.
ENVIRONMENTAL AND SAFETY: BECAREFUL WITH PETROLEUM PRODUCTS
AROUND WATER.
.
LOCATION: WEST FISH LIFT
.
SCOPE: INSTALL MOTORS AND WIRE, INSTALL PUMPS, HOSES, CHECK GEAR CASES AND MOTOR FOR HOPPER HOIST, CHECK HOPPER DRIVE MOTORS AND GEAR CASES, CHECK CHAIN BLOCK THAT RAISES DOWN RIVER SCREEN, SET UP DECK AND TANKS NEEDED TO OPERATE. LUBE AND TEST EVERYTHING TO HAVE READY FOR OPERATION.

Rework/Approval

Deficiency Tag No.: Loc: Tag Removed:
ReWork Job : Comments:

Task Permits

Fac	Pmt Type	Permit Number	From Date	Thru Date	Duration
SEC	C/R	00185067			

Permit Desc: CLEARANCE REQUEST
Comments : sct on breaker

Post Maintenance Test Info

PMT Work Order/Task:

QC Requirements/Comments

NO QC REQUIREMENTS FOR THE WORK ORDER TASK

Task Holds Not Released

Hold Code : CCL
Responsible: TAG Hold Date: 02/06/2022 18:00
Hold Code : CLR
Responsible: TAG Hold Date: 02/06/2022 18:00

Major Failure/Action Taken

Major Failure :
Deficiency Tag Loc:
Deficiency Tag No.:
Action Taken :
Removed (Y/N):
Limited Cond Operation:

Work Order: **99652133 01** Date: 11/10/22 Page: 1

Facility: SEC CONOWINGO HYDROELECTRIC GENERATING
Unit : CONENV Project : 100AOBSLP
W/O Type: PM Priority: C2 W/O Dspln: S
Planner : C108253 APPLETON D D
W/O Title : WEST FISH LIFT LAY UP
W/O Task Title: W. LIFT LAY-UP
Written To : WEST FISH LIFT
Task Dspln : S Due Date: 10/31/22 Late Date:

Work Order Package

99652133 01

Constellation

Work Order Task Written To

Facility : SEC
Division :
Equipment : LIFT WEST FISH
Work Item :
Equip. Tag:
UTC :
Catalog ID:
Client/Act:
Location :
Location 2:

PMRQ :
Unit : CONENV
Area :
Component:
Eqt. List:
Alt:
Tbl/Brkdwn: (Past 12 mo)
Job Type : PM UCR:

PM Cat Cd:
Op Sys :
Sys/Cls: WFT
Ops Review Reqd:

WEST END OF POWERHOUSE

Signature/Authorization/Approval/Review:

	Name	Date	Time
Shift Authorization to start work :			
Work Started :			
Work Stopped :			
Supv Review of Work Completion :			
ANI Review of work package :			

("Work Started" date above shall be the "Credit Date" unless otherwise explained)

Complete one of the following:

Verify Credit Date

_____
_____
_____

****Credit Predefine Per another WO#** _____

- ☐ Complete Sat - Credit Predefine
- ☐ Complete w/Portions Unsat - Credit Predefine
- ☐ No Work Performed - Credit Predefine
- ☐ * Failed - Do Not Credit
- ☐ * No Work Performed - Do Not Credit
- ☐ * Partial - Do Not Credit
- ☐ Comments: _____

* Predefine Due/Late Dates will NOT advance
** If crediting per-another-WO# verify "Credit Date" is "Work Started Date" of the referenced WO#.

Work Order Task Instructions

SAFETY: USE PROPER PPE AND RIGGING PRACTICES. CRANE MUST BE GROUNDED.

TEST BEFORE TOUCH.
SA-EP-200, PERSONAL PROTECTIVE EQUIPMENT
OP-EP-40, EP-EQ LOTO PROGRAM
OP-EP-106-1, PRE-JOB BRIEF / CHECKLIST
SA-EP-403, RIGGING PRACTICES
HYDRO ENVIRONMENTAL CHECKLIST
.
. ENVIRONMENTAL: COVER OPEN DRAINS WHEN USING CRANE .
.
SCOPE:CROWDER, UPRIVER DOORS OPEN & STRONGBACK INSTALLED, HOPPER UP AND DOOR OPEN. DETERM. ELECTRICAL CONNECTIONS.
*****ELECTRICIANS TO RE-LABEL ALL DEGRADED WIRE MARKERS*****
.
ORDER CRANE FROM HENLELS. 410-378-2773, OR CALL RICHARD WARD {THE PERSON THEY'LL CALL} AT 410-658-7109
REMOVE AND STORE MOTORS AND PUMPS.
PUMPS GO IN CLOSET NEXT TO ELEVATOR ON 1ST FLOOR.
HOSES ROLLED UP TIED TOGETHER MARKED {FISH LIFT PUMPS ONLY} AND STORED IN TOOL ROOM.
DECK MOVED AND TUCKED IN NEXT TO HANDRAIL BY SPOT LIGHT LEAVING ENOUGH ROOM TO GET TO LIGHT.

Rework/Approval

Deficiency Tag No.: Loc: Tag Removed:
ReWork Job : Comments:

Task Permits

Fac	Pmt Type	Permit Number	From Date	Thru Date	Duration
SEC	C/R	00186931			

Permit Desc: CLEARANCE REQUEST
Comments :

Post Maintenance Test Info

PMT Work Order/Task:

QC Requirements/Comments

NO QC REQUIREMENTS FOR THE WORK ORDER TASK

Task Holds Not Released

Hold Code : CCL
Responsible: TAG Hold Date: 09/14/2022 08:10
Hold Code : CLR
Responsible: TAG Hold Date: 09/14/2022 08:10

APPENDIX E. CONOWINGO WEST AND EAST FISH LIFT OPERATION DATA AND FISH COUNTS

Conowingo WFL			
Date	Start Time	End Time	Total Daily Operation Time
3/22/2022	8:50	18:40	9:50
3/23/2022	7:05	18:45	11:40
3/24/2022	7:20	18:50	11:30
3/25/2022	7:17	18:40	11:23
3/26/2022	7:15	18:45	11:30
3/27/2022	--	--	--
3/28/2022	--	--	--
3/29/2022	12:20	18:40	6:20
3/30/2022	10:30	18:40	8:10
3/31/2022	7:10	18:45	11:35
4/1/2022	6:50	19:05	12:15
4/2/2022	6:40	19:12	12:32
4/3/2022	6:50	19:15	12:25
4/4/2022	6:52	19:10	12:18
4/5/2022	6:37	19:15	12:38
4/6/2022	6:30	19:10	12:40
4/7/2022	7:54	17:59	10:05
4/8/2022	9:00	19:10	10:10
4/9/2022	--	--	--
4/10/2022	--	--	--
4/11/2022	--	--	--
4/12/2022	--	--	--
4/13/2022	7:15	19:14	11:59
4/14/2022	6:37	19:10	12:33
4/15/2022	6:42	19:12	12:30
4/16/2022	6:40	19:05	12:25
4/17/2022	6:27	19:10	12:43
4/18/2022	6:45	19:08	12:23
4/19/2022	6:40	19:10	12:30
4/20/2022	6:45	19:10	12:25
4/21/2022	6:30	19:10	12:40
4/22/2022	6:40	19:10	12:30
4/23/2022	6:35	19:10	12:35
4/24/2022	6:30	19:10	12:40
4/25/2022	6:42	19:07	12:25
4/26/2022	9:20	19:10	9:50
4/27/2022	6:45	19:10	12:25
4/28/2022	7:30	19:10	11:40
4/29/2022	6:50	19:10	12:20
4/30/2022	6:40	19:10	12:30
5/1/2022	6:00	19:40	13:40
5/2/2022	6:15	19:45	13:30
5/3/2022	6:15	19:40	13:25
5/4/2022	6:15	19:25	13:10

Date	Start Time	End Time	Total Daily Operation Time
5/5/2022	6:20	19:45	13:25
5/6/2022	6:30	19:32	13:02
5/7/2022	--	--	--
5/8/2022	--	--	--
5/9/2022	--	--	--
5/10/2022	--	--	--
5/11/2022	--	--	--
5/12/2022	6:15	19:40	13:25
5/13/2022	6:05	19:40	13:35
5/14/2022	6:10	19:26	13:16
5/15/2022	6:05	19:40	13:35
5/16/2022	6:15	19:35	13:20
5/17/2022	6:00	19:50	13:50
5/18/2022	6:15	18:52	12:37
5/19/2022	6:55	19:30	12:35
5/20/2022	6:15	19:30	13:15
5/21/2022	6:22	19:41	13:19
5/22/2022	6:20	19:25	13:05
5/23/2022	--	--	--
5/24/2022	6:20	19:40	13:20
5/25/2022	6:15	19:35	13:20
5/26/2022	6:15	19:30	13:15
5/27/2022	6:12	19:27	13:15
5/28/2022	6:12	19:33	13:21
5/29/2022	6:16	19:30	13:14
5/30/2022	6:15	19:34	13:19
5/31/2022	6:05	19:30	13:25
6/1/2022	6:20	19:33	13:13
6/2/2022	6:25	13:30	7:05
6/3/2022	6:35	13:30	6:55
6/4/2022	--	--	--
6/5/2022	--	--	--
6/6/2022	6:42	13:32	6:50
6/7/2022	6:48	13:30	6:42
6/8/2022	6:20	13:40	7:20
6/9/2022	7:00	13:28	6:28
6/10/2022	6:45	13:35	6:50
6/11/2022	--	--	--
6/12/2022	--	--	--
6/13/2022	6:00	13:30	7:30
6/14/2022	7:00	13:29	6:29
6/15/2022	6:00	13:28	7:28

Conowingo West Fish Lift, Hourly Counts of Fish Species Captured

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
3/22/22 8:50				200								1							1				4												1																									
3/22/22 9:30				500																			1																																					
3/22/22 10:00				75															1				2																																					
3/22/22 10:35				375								2							2				5						1						6					1																1				
3/22/22 11:10				350															1																																									
3/22/22 11:50				250																																																								
3/22/22 12:15				75																									1																															
3/22/22 13:00				225																			1												2																									
3/22/22 13:30				100																			1																																					
3/22/22 14:05				250								1																																																
3/22/22 14:35				175																																																								
3/22/22 15:05				75																									1						1																									
3/22/22 15:35				200															1																1																									
3/22/22 16:15				300																			1												1																									
3/22/22 16:50				75																															1																									
3/22/22 17:30				350																																																								
3/22/22 18:05				250																																																								
3/22/22 18:40				150																																																								
3/23/22 7:05				20																			1																																					
3/23/22 7:25				175																															1																									
3/23/22 7:45				300																																																								
3/23/22 8:15				250																																																								
3/23/22 8:40				60																			2																																					
3/23/22 9:20				275																			1																																					
3/23/22 9:55				150																																																								
3/23/22 10:30				150																																																								
3/23/22 11:05				450		1													1																2																									
3/23/22 11:40				450																																																								
3/23/22 12:15				700																																																								
3/23/22 12:50				850																																																								
3/23/22 13:25				1,100																																																								
3/23/22 13:50				750																																																								
3/23/22 14:15				700																																							1																	
3/23/22 14:50				900								1																																																
3/23/22 15:25				850																																																								
3/23/22 16:00				800															1																																									
3/23/22 16:35				950															1																1																									
3/23/22 17:15				950																																																								
3/23/22 17:50				900																															1																									
3/23/22 18:25				900																																																								
3/23/22 18:45				375																																																								
3/24/22 7:20				25				1											1																																									
3/24/22 8:00				550																																																								
3/24/22 8:40				175																															1																									
3/24/22 9:15				300																																																								
3/24/22 9:50				400																															1																									
3/24/22 10:25				350															1																																									
3/24/22 11:00				300																															2																									
3/24/22 11:35				600																															3																									
3/24/22 12:10				500																															1																									
3/24/22 12:45				450																																																								
3/24/22 13:20				500																																			1																					
3/24/22 13:55				800															3																																									
3/24/22 14:30				650																																																								
3/24/22 15:05				725																															1																									
3/24/22 15:40				1,200																															2																									
3/24/22 16:05				300																			1												1																									
3/24/22 16:30				675																															1																									
3/24/22 17:05				600																																																								
3/24/22 17:30				825																															1																									
3/24/22 17:55				450																																																								
3/24/22 18:20				725																																																								
3/24/22 18:50				800																																																								
3/25/22 7:17				20																																																								
3/25/22 7:52				1,200																																																								
3/25/22 8:17				800																																																								
3/25/22 8:42				400															1																					1																				
3/25/22 9:07				100																																																								
3/25/22 9:32				450																															1																									
3/25/22 10:07				950																																																								
3/25/22 10:42				800																																																								
3/25/22 11:17				1,000																																																								
3/25/22 11:52				1,700																															1																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
3/25/22 12:17				900																																																									
3/25/22 12:42				400																																																									
3/25/22 13:07				800																																																									
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3/25/22 14:07				1,500																															1																									
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3/25/22 15:17				2,000																																																									
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3/25/22 16:30				450																			1																																						
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3/30/22 12:08				300																																																									
3/30/22 12:42				140																																																									
3/30/22 13:16				165																																																									
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3/30/22 14:25				135																																																									
3/30/22 14:59				110																																																									
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3/30/22 16:43				800																																																									
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Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
3/31/22 8:40				650																																																								
3/31/22 9:15				250																																																								
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3/31/22 14:10				275																																																								
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3/31/22 15:55				725																																																								
3/31/22 16:30				850																																																								
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4/2/22 13:02				14																																																								
4/2/22 13:42				30																																																								
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4/2/22 14:50				35																																																								
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4/2/22 15:56				2,000																																																								
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4/2/22 16:33				160																																																								
4/2/22 17:05				1,200																														2																									
4/2/22 17:21				800																																																								
4/2/22 17:55				160																														1																									
4/2/22 18:27				1,000																																																								
4/2/22 18:50				35																														2																									
4/2/22 19:12				80																														1																									
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Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/3/22 10:50				22																															1																									
4/3/22 11:25				34																																																									
4/3/22 12:00				53																									2																															
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4/3/22 13:10				67																																																								
4/3/22 13:45				32																																																								
4/3/22 14:20				44																																																								
4/3/22 14:55				63																																																								
4/3/22 15:30				58																																																								
4/3/22 16:05				200																															1																									
4/3/22 16:40				82															1																																									
4/3/22 17:15				175																															1																									
4/3/22 17:50				225		1																																																						
4/3/22 18:25				240																																																								
4/3/22 19:00				365				1																																																			
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4/4/22 7:14				300																																																							
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4/4/22 8:56				225																																																							
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4/4/22 10:38				90																																																							
4/4/22 11:12				80																																																							
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Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/6/22 13:36				500																																																								
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4/13/22 19:14				480																																																								
4/14/22 6:37				2																																																								

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/14/22 7:00				550																															2																								
4/14/22 7:40				65															1										1																															
4/14/22 8:15				450															2																																									
4/14/22 8:40				80															2																																									
4/14/22 9:15				350															2																																									
4/14/22 9:40				200															1																																									
4/14/22 10:15				800															2										1																															
4/14/22 10:50				500															1										1																															
4/14/22 11:25				700																																																								
4/14/22 12:00				750															2																																									
4/14/22 12:35				1,150															1																1																								
4/14/22 13:10				200															1																																									
4/14/22 13:45				875															1										1																															
4/14/22 14:20				725																																																							
4/14/22 14:55				450															1																																									
4/14/22 15:30				600																									1																															
4/14/22 16:05				500															1																																									
4/14/22 17:20				300															2																																									
4/14/22 17:55				575																																																								
4/14/22 18:35				725																																																								
4/14/22 19:10				225																															1																								
4/15/22 6:42				0																																																								
4/15/22 7:17				180				1											3																																									
4/15/22 7:52				42				1											2				1												1																								
4/15/22 8:27				225															3																																									
4/15/22 9:02				300															4										1																															
4/15/22 9:37				700		1													4																				1																					
4/15/22 10:17				825															2																																									
4/15/22 10:50				875																																																							
4/15/22 11:20				950																									1																															
4/15/22 11:50				900															2				1																																					
4/15/22 12:20				1,150															3																																									
4/15/22 12:40				1,050															1																																									
4/15/22 13:05				925															1																																									
4/15/22 13:25				575															1																																									
4/15/22 13:50				550															4																3																								
4/15/22 14:10				575															1				1																																					
4/15/22 14:30				525																																																								
4/15/22 14:55				450																															1																								
4/15/22 15:15				1,100															2																																									
4/15/22 15:45				1,150								1							3				1																																					
4/15/22 16:10				950																																																								
4/15/22 16:37			1	825																															1																								
4/15/22 17:02				900																																																								
4/15/22 17:27				1,700																																																								
4/15/22 17:52				950															1																1																								
4/15/22 18:17				1,000															1																																									
4/15/22 18:47				475															1																1																								
4/15/22 19:12			1	1,450																									1								1																							
4/16/22 6:40				55																																																								
4/16/22 7:18				900								1							1				5												1																								
4/16/22 7:42				3															1																																				1				
4/16/22 8:16				70																			2																																					
4/16/22 8:50				425															1										1																															
4/16/22 9:24				225															3										2																															
4/16/22 9:58			1	450															9										1																															
4/16/22 10:32				400		1													2																																									
4/16/22 11:06				525															1					1																																				
4/16/22 11:40				950															1										1																															
4/16/22 12:04				825																																																								
4/16/22 12:29				275															1																2																								
4/16/22 12:53			1	575															1																																									
4/16/22 13:27				650																																																								
4/16/22 14:01				900															3																		1																							
4/16/22 14:35			1	750																																																								
4/16/22 15:09				1,150																																																								
4/16/22 15:43			1	1,050																																																								
4/16/22 16:08				950																									1																															
4/16/22 16:33				1,100															1																																									
4/16/22 16:57			2	975																																																								
4/16/22 17:22			2	475															1																1																								
4/16/22 17:56				700															1																																									
4/16/22 18:30				425																																																								
4/16/22 19:05				650															1										1																															

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH
4/17/22 6:27			5	25				1												
4/17/22 6:50				950																
4/17/22 7:15				80																
4/17/22 7:50				350															1	
4/17/22 8:25				300															3	
4/17/22 9:00				900																
4/17/22 9:30				950																
4/17/22 10:05				875															2	
4/17/22 10:40				1,200															1	
4/17/22 11:05				1,000																
4/17/22 11:30				825																
4/17/22 12:05				875															1	
4/17/22 12:30				750															1	
4/17/22 13:05				725															6	
4/17/22 13:39				425															3	
4/17/22 14:07				625															1	
4/17/22 14:40				1,300																
4/17/22 15:15				600																
4/17/22 15:50				1,000															1	
4/17/22 16:28				975															1	
4/17/22 17:00				1,150																
4/17/22 17:30				1,200																
4/17/22 18:00				950																
4/17/22 18:35				300																
4/17/22 19:10				375																
4/18/22 6:45			1	20																
4/18/22 7:14				250																
4/18/22 8:15				120															5	
4/18/22 8:49				550															3	
4/18/22 9:23				1,000															1	
4/18/22 9:40				1,800																
4/18/22 10:02				1,100																
4/18/22 10:26				1,200																
4/18/22 10:40				800																
4/18/22 10:54				400																
4/18/22 11:26				400																
4/18/22 12:00				650															2	
4/18/22 12:34				800															4	
4/18/22 13:09				750															1	
4/18/22 13:47				600															3	
4/18/22 14:21				400																
4/18/22 14:55				350																
4/18/22 15:29				800																
4/18/22 16:03				650																
4/18/22 16:37				300															1	
4/18/22 17:11				120											1					
4/18/22 17:45				150															1	
4/18/22 18:20			1	300																
4/18/22 18:46				400																
4/18/22 19:08				750																
4/19/22 6:40				23																
4/19/22 7:15				180																
4/19/22 7:50				100															1	
4/19/22 8:25				125															2	
4/19/22 9:00				350																
4/19/22 9:35				700															1	
4/19/22 10:10				35																
4/19/22 10:45				400																
4/19/22 11:20				275											1					
4/19/22 11:55				250																
4/19/22 12:30				150																
4/19/22 13:05				100															1	
4/19/22 13:40				200				1											1	
4/19/22 14:15				120																
4/19/22 14:50				300																
4/19/22 15:25				150															1	
4/19/22 16:00				120											1					
4/19/22 16:35				175				1												
4/19/22 17:10				110																
4/19/22 17:45				850															1	
4/19/22 18:20				975																
4/19/22 18:45				140																
4/19/22 19:10				340				1												
4/20/22 6:45				9				1							1					

Date and Time (Lift Time)	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE
4/17/22 6:27			6																	
4/17/22 6:50			3												2					
4/17/22 7:15			1																	
4/17/22 7:50															1					
4/17/22 8:25																				
4/17/22 9:00																				
4/17/22 9:30			1												1					
4/17/22 10:05																				
4/17/22 10:40																				
4/17/22 11:05															1					
4/17/22 11:30									1											
4/17/22 12:05									1											
4/17/22 12:30																				
4/17/22 13:05										1					1				1	
4/17/22 13:39									3											
4/17/22 14:07									1	1										
4/17/22 14:40									2						1					
4/17/22 15:15																				
4/17/22 15:50																				
4/17/22 16:28																	1			
4/17/22 17:00																				
4/17/22 17:30																				
4/17/22 18:00																				
4/17/22 18:35															1					
4/17/22 19:10			1																	
4/18/22 6:45			10												1					
4/18/22 7:14																				
4/18/22 8:15			1												1					
4/18/22 8:49			1												2					
4/18/22 9:23															1					
4/18/22 9:40																				
4/18/22 10:02			1												1					
4/18/22 10:26																				
4/18/22 10:40									1											
4/18/22 10:54																				
4/18/22 11:26																				
4/18/22 12:00																				
4/18/22 12:34									2											
4/18/22 13:09															1					
4/18/22 13:47									1						1					
4/18/22 14:21															2				1	
4/18/22 14:55																			1	
4/18/22 15:29																				
4/18/22 16:03									2											
4/18/22 16:37																				
4/18/22 17:11															1					
4/18/22 17:45															1					
4/18/22 18:20															1					
4/18/22 18:46																				
4/18/22 19:08									1						1					
4/19/22 6:40															1					
4/19/22 7:15			1												2					
4/19/22 7:50			2																	
4/19/22 8:25																				
4/19/22 9:00																				
4/19/22 9:35									1											
4/19/22 10:10																				
4/19/22 10:45															1					
4/19/22 11:20	1																			
4/19/22 11:55																				
4/19/22 12:30															1					1
4/19/22 13:05			1						1	1										
4/19/22 13:40									1											
4/19/22 14:15																				
4/19/22 14:50																				
4/19/22 15:25													1							
4/19/22 16:00															1					
4/19/22 16:35																				
4/19/22 17:10																				
4/19/22 17:45																				
4/19/22 18:20																				
4/19/22 18:45																				
4/19/22 19:10			1																	
4/20/22 6:45			1																	

Date and Time (Lift Time)	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/17/22 6:27																				
4/17/22 6:50																				
4/17/22 7:15																				
4/17/22 7:50																				
4/17/22 8:25																				
4/17/22 9:00																				
4/17/22 9:30																				
4/17/22 10:05																				
4/17/22 10:40																				
4/17/22 11:05																				
4/17/22 11:30																				
4/17/22 12:05																				
4/17/22 12:30																				
4/17/22 13:05																				
4/17/22 13:39																				
4/17/22 14:07																		1		
4/17/22 14:40																				
4/17/22 15:15																				
4/17/22 15:50																				
4/17/22 16:28																				
4/17/22 17:00																				
4/17/22 17:30																				
4/17/22 18:00																				
4/17/22 18:35																				
4/17/22 19:10																				
4/18/22 6:45																				
4/18/22 7:14																				
4/18/22 8:15																				
4/18/22 8:49																				
4/18/22 9:23																				
4/18/22 9:40																				
4/18/22 10:02																				
4/18/22 10:26																				
4/18/22 10:40																				
4/18/22 10:54																				
4/18/22 11:26																		1		
4/18/22 12:00																				
4/18/22 12:34																				
4/18/22 13:09																				
4/18/22 13:47																				
4/18/22 14:21																		1		
4/18/22 14:55																				
4/18/22 15:29																				
4/18/22 16:03																				
4/18/22 16:37																				
4/18/22 17:11																				
4/18/22 17:45																				
4/18/22 18:20																				
4/18/22 18:46																				
4/18/22 19:08																				
4/19/22 6:40																				
4/19/22 7:15																				
4/19/22 7:50																				
4/19/22 8:25																				
4/19/22 9:00																				
4/19/22 9:35																				
4/19/22 10:10																				
4/19/22 10:45																				
4/19/22 11:20																				
4/19/22 11:55																				
4/19/22 12:30																				
4/19/22 13:05																				
4/19/22 13:40																				
4/19/22 14:15																		1		
4/19/22 14:50																		1		
4/19/22 15:25																				
4/19/22 16:00																		1		
4/19/22 16:35																				
4/19/22 17:10																				
4/19/22 17:45																				
4/19/22 18:20																				
4/19/22 18:45																				
4/19/22 19:10																				
4/20/22 6:45																1				

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/20/22 7:17				175																			3																																					
4/20/22 7:51				30																			3																																		1		
4/20/22 8:25				120																			1																																					
4/20/22 8:59				60																			2																																					
4/20/22 9:34				40								1																																																
4/20/22 10:07				35																			1						1																															
4/20/22 10:41				75																																																								
4/20/22 11:15				900																			1																																					
4/20/22 11:49				140																																																								
4/20/22 12:23				450																																																								
4/20/22 12:57				30																																																								
4/20/22 13:32				1,600																																																								
4/20/22 13:56				700																																																								
4/20/22 14:20				45											1																				1																									
4/20/22 14:54				1,500											1																																													
4/20/22 15:18				900																																																								
4/20/22 15:42				1,100																																																								
4/20/22 16:06				100				1																																																				
4/20/22 16:45				450																			1																																					
4/20/22 17:19				700																															1																									
4/20/22 17:53				2,000																																																								
4/20/22 18:04				1,000																																																								
4/20/22 18:16				2,000																																																								
4/20/22 18:45				175																																																								
4/20/22 19:10				35																																																								
4/21/22 6:30				1																			4																																					
4/21/22 7:05				950																																																								
4/21/22 7:55				425																															1																									
4/21/22 8:30				38																			3												1																									
4/21/22 9:05				1,100		1																																																						
4/21/22 9:40				1,150																																																							
4/21/22 10:05				125																																																							
4/21/22 10:40				100																																																							
4/21/22 11:15				400																																																							
4/21/22 11:50				475																																																							
4/21/22 12:25				350																										1																														
4/21/22 13:00				825																																																							
4/21/22 13:35				375																																																							
4/21/22 14:10				450																																																							
4/21/22 14:45				175																															1																									
4/21/22 15:20				160																																																							
4/21/22 15:55				1,200																																	1																							
4/21/22 16:20				1,050																																																							
4/21/22 16:55				110																																																							
4/21/22 17:30				225																			1																																					
4/21/22 18:05				140																			1																																					
4/21/22 18:40				220																																																							
4/21/22 19:10				240																			1												1																									
4/22/22 6:40				2																			2																																					
4/22/22 7:15				1,000																			1																																					
4/22/22 7:50				20																																																							
4/22/22 8:25				75																																																							
4/22/22 9:00				150																																																							
4/22/22 9:40				250																																																							
4/22/22 10:15				65																																																							
4/22/22 10:50				300																																																							
4/22/22 11:30				150																																																							
4/22/22 12:05				15																																																							
4/22/22 12:40				15																																																							
4/22/22 13:15				30																															1																									
4/22/22 13:50				75															1																																									
4/22/22 14:35				100																																																							
4/22/22 15:10				200																																																							
4/22/22 15:50	1			50																														1																										
4/22/22 16:30				40															2																																									
4/22/22 17:05				1,200																																																							
4/22/22 17:30				600																																																							
4/22/22 18:05				60																															1																									
4/22/22 18:40				400																																																							
4/22/22 19:10				200																																																							
4/23/22 6:35				5																			1																																					
4/23/22 7:00				65															1				3																																					
4/23/22 7:35				475															1				1																																					
4/23/22 8:10				120																			2																																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/23/22 8:45				75																			1												1																									
4/23/22 9:20				600															1				2																																					
4/23/22 9:55				450																																																								
4/23/22 10:30				200				1											1										1																															
4/23/22 11:05				240															2																1																									
4/23/22 11:40				130																			2																																					
4/23/22 12:15				230															2																					1																				
4/23/22 12:50				190																																																							
4/23/22 13:25			1	120															2																																									
4/23/22 14:00				105															1				2																																					
4/23/22 14:35				85															4										1						2																									
4/23/22 15:10				90															3																1					1																				
4/23/22 15:45				125															2																																									
4/23/22 16:20				100															2																																									
4/23/22 16:55				110															3																																									
4/23/22 17:30				155															4				1						1																															
4/23/22 18:05				240															4				5												2																									
4/23/22 18:40				130															1																																									
4/23/22 19:10				160															2				4																																					
4/24/22 6:30				1																			2																																					
4/24/22 7:15				1,100															1				3																																					
4/24/22 7:50				450																																																							
4/24/22 8:25				300															11				1																																					
4/24/22 9:05				600															3																																									
4/24/22 9:40				80															7																																									
4/24/22 10:15				150															12																																									
4/24/22 10:50				300															21																																									
4/24/22 11:25				250															48											1																														
4/24/22 12:00				100															39										1																															
4/24/22 12:35				1,400															8										2																															
4/24/22 13:15				550																																																							
4/24/22 13:50				800															1										4																															
4/24/22 14:25				1,800															6										2																															
4/24/22 14:50				1,100																									1																															
4/24/22 15:25				800															1				1												1																									
4/24/22 16:00				600															5																2																									
4/24/22 16:35				1,400															3				1																																					
4/24/22 17:10				450															1																																									
4/24/22 17:45				1,300															1																																									
4/24/22 18:20				350															3				1																																					
4/24/22 18:45				200															3																																									
4/24/22 19:10				100															5				3																																					
4/25/22 6:42				1																			9																																					
4/25/22 7:14				6															9				2																																			1		
4/25/22 7:49				25															7				1																																					
4/25/22 8:23				40															13				1																																					
4/25/22 8:58				75															7																																									
4/25/22 14:15				350															1				1						1																															
4/25/22 14:35				1,200															2				2																																					
4/25/22 14:55			8	400															2				2																																					
4/25/22 15:28			15	900															2				1						1																															
4/25/22 16:02			8	600															1				1																																					
4/25/22 16:36			2	1,200															3				2						1																															
4/25/22 17:10			12	400															2																1		1			1																		1		
4/25/22 17:46			12	1,000															2																																									
4/25/22 18:12				1,100															1																																									
4/25/22 18:25			8	600																															1																									
4/25/22 18:40			26	300																																																							
4/25/22 19:07			15	400															2																																									
4/26/22 9:20	1		17	110															1				9																																					
4/26/22 9:45			1	875															3				1																																					
4/26/22 10:20				250															5				1																																					
4/26/22 11:45				950															16				1						1																															
4/26/22 12:10				900															1																																									
4/26/22 12:45				1,000															1				1						1																															
4/26/22 13:25				1,000															6																																									
4/26/22 13:55				975																																																							
4/26/22 14:30			1	1,000															4										2																															
4/26/22 15:10				1,000															4				1																																					
4/26/22 15:50			6	375															2																																									
4/26/22 16:25			3	700															4				6																																					
4/26/22 17:10			6	850																																																							
4/26/22 17:45			1	1,150															4				2						1																															
4/26/22 18:20				1,200															1				1																																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/26/22 18:45				875															2																																									
4/26/22 19:10				700															1				1																																					
4/27/22 6:45			17	12																			7																																					
4/27/22 7:30				150															2				2																																					
4/27/22 7:43			1	300															5				2																																					
4/27/22 8:15			2	1,000															7																																									
4/27/22 8:38			2	400															4																																							1		
4/27/22 11:16				800															2																																									
4/27/22 11:34			1	900															3				1																																					
4/27/22 11:56			8	300																																																								
4/27/22 12:30			2	1,000																																																								
4/27/22 12:46			2	600															2																																									
4/27/22 13:03			6	200															4																																									
4/27/22 13:26			4	700																									1																															
4/27/22 13:46			5	350															2																																									
4/27/22 14:18	1		21	900															2																																									
4/27/22 14:56			2	1,000															3										1						1																									
4/27/22 15:20			3	500															1																																									
4/27/22 15:52			2	600															2																																									
4/27/22 16:09			3	500																																																								
4/27/22 16:41			2	1,100															2																																									
4/27/22 16:59			2	1,000															2				1																																					
4/27/22 17:21			13	400																																																								
4/27/22 17:45			10	200																																																								
4/27/22 18:19	2		16	200															1				2																																					
4/27/22 18:49			29	250																																																								
4/27/22 19:10	1		14	100																																																								
4/28/22 7:30	0		15	15																			2																																					
4/28/22 8:05	0		2	30																																																								
4/28/22 8:40	0		9	20				1															1																																					
4/28/22 9:15	0		3	200															2				1																																					
4/28/22 9:50	0		3	60															2				1																																					
4/28/22 10:25	0		3	850															3																1																									
4/28/22 11:00	0		7	45															1																1																									
4/28/22 11:35	0		1	8															2				1																																					
4/28/22 12:10	0		0	12											1				1											1																														
4/28/22 13:35	0		2	180															24																																									
4/28/22 14:10	0		2	500															10																																									
4/28/22 14:45	0		6	900															25																																									
4/28/22 15:20	0		1	175				1											15																1																							1		
4/28/22 15:55	0		8	650										2					10					1																																				
4/28/22 16:30	0		4	450															3																																									
4/28/22 17:05	2		2	1,400															3																1																									
4/28/22 17:45	0		26	200				1											1																2																									
4/28/22 18:20	0		6	1,600																															1																									
4/28/22 18:50	0		2	150																															1																									
4/28/22 19:10	0		3	80																																																								
4/29/22 6:50				1				1						1									1												1																					1				
4/29/22 7:25			1	10				1											1				1												1																									
4/29/22 10:05				5															2										1						1																									
4/29/22 10:40			3	60															5				1												1																									
4/29/22 11:17			1	25															10				1												1																									
4/29/22 11:52				8			1												11				1												1																									
4/29/22 13:25				50										25					75										1						1																							1		
4/29/22 14:00	2		3	120			1							50					50											1					1																									
4/29/22 14:37	1		1	100															60										1						1																							1		
4/29/22 15:01	1			800															20																																									
4/29/22 15:21				600															12									1	2						1																									
4/29/22 15:41	1			350															20										1						1																									
4/29/22 16:05				650															25																1																									
4/29/22 16:40	1		9	300															15																5																							3		
4/29/22 17:15	5		7	650			1												6																1																									
4/29/22 17:50	3		12	150			3												10																4																									
4/29/22 18:25	1		5	120															8				1	1					1																													1		
4/29/22 18:49			4	20			2												4				1	1											1																									
4/29/22 19:10			2	30			2												4				1												1																									
4/30/22 6:40															1								3												1																									
4/30/22 7:15			1	800															2																1																							1		
4/30/22 7:50			4	25															4																1																							1		
4/30/22 8:25	1		5	350															2				1						2						1																							1		
4/30/22 9:00	1		4	20															2										2											1																		1		
4/30/22 9:35				20															6																																							3		
4/30/22 10:10				25															4											2																												1		
4/30/22 10:45	2			40															13											1																														

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL
4/30/22 11:20	2		2	200															10									
4/30/22 11:55	2		7	200															15									
4/30/22 12:30	2			150															20									
4/30/22 13:25	12			1,000								1							12									
4/30/22 14:30				800															4									
4/30/22 14:55	1			1,000															8									
4/30/22 15:30	3		2	500															10									
4/30/22 16:10	6		1	400															5				2					
4/30/22 16:45	6		2	250										50					4									
4/30/22 17:20	3		9	100										20					3									
4/30/22 17:55	1		2	200															7									
4/30/22 18:30	6		2	200															3				2					
4/30/22 18:55	2			100															6				1					
4/30/22 19:10	1		1	150				1											10				3					
5/1/22 6:00			3	40				2							1								1					
5/1/22 7:10			1	550															8									
5/1/22 7:45	1			12															7				1					
5/1/22 8:20				400															75									
5/1/22 8:55	1			350															40				1					
5/1/22 9:30				200										15					8									
5/1/22 10:05				550															20									
5/1/22 10:40	3			300										2					4									
5/1/22 11:15				40															3									
5/1/22 11:50	1			75															7									
5/1/22 12:25				80															10									
5/1/22 13:00	1			150															20									
5/1/22 13:35	2			300								1							35									
5/1/22 14:10				200															50									
5/1/22 15:45	2			175															35									
5/1/22 16:15	11			450															45									
5/1/22 16:50	7			200															12				1					
5/1/22 17:25	6			175															8									
5/1/22 18:00	1			250															14				2					
5/1/22 18:35				200															12				1					
5/1/22 19:10			1	200															5				3					
5/1/22 19:40			2	225															8				2					
5/2/22 6:15	0			0				2															13	1				
5/2/22 6:47	0			120							1								2									
5/2/22 7:26	0			160															6									
5/2/22 8:08	0			75										1					9									
5/2/22 8:42	0			50															8									
5/2/22 9:16	0			200															45				1					
5/2/22 9:53	0			225															40									
5/2/22 10:57	0			175															70				1					
5/2/22 11:31	0			125															25									
5/2/22 12:05	1			105															30									
5/2/22 12:47	0			140															30									
5/2/22 13:58	0			550															20									
5/2/22 14:39	0			200															10									
5/2/22 15:04	5			1,050															35				1					
5/2/22 15:58	2			425															20				2					
5/2/22 16:32	4			275															18				2					
5/2/22 17:07	4			180											50				16				5					1
5/2/22 17:41	0		1	200											7				8				3					
5/2/22 18:15	2			105											3				13				4					
5/2/22 18:49	1			200															15				4					
5/2/22 19:23	0		1	115				1											6				5					
5/2/22 19:45	2			150				1											9				12					
5/3/22 6:15			1	25			2								12				3				50					
5/3/22 6:50				500															1				2					
5/3/22 7:25				30											1				15				1					
5/3/22 8:00				40															30				3					
5/3/22 8:55				250															40				1					
5/3/22 9:10	1			400															45									
5/3/22 9:45				150															55									
5/3/22 10:20				100															40									
5/3/22 10:55	1			200															100				1					
5/3/22 12:05	2			150															75									
5/3/22 13:25	3			300															120									
5/3/22 14:00	2			1,200															50									
5/3/22 15:15				1,000							1								15									
5/3/22 16:50				700			1												40				3					
5/3/22 17:25	5			120			1												30				2					
5/3/22 18:00	4			110															25				10	1				

Date and Time (Lift Time)	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/30/22 11:20	1																													1		
4/30/22 11:55	1																															
4/30/22 12:30	1						1					1																				
4/30/22 13:25	1						1																							3		
4/30/22 14:30	2																															
4/30/22 14:55	4	1																												1		
4/30/22 15:30	1	1					1																									
4/30/22 16:10	2																															
4/30/22 16:45							2																									
4/30/22 17:20	1						1																									
4/30/22 17:55	1						3																									
4/30/22 18:30	1																													1		
4/30/22 18:55							3																									
4/30/22 19:10							2																									
5/1/22 6:00							3																									
5/1/22 7:10	1																															
5/1/22 7:45	1						1																							1		
5/1/22 8:20	2	3																												1		
5/1/22 8:55	4																													2		
5/1/22 9:30	2																													1		
5/1/22 10:05	2																													3		
5/1/22 10:40		1																												4		
5/1/22 11:15	2																													1		
5/1/22 11:50																																
5/1/22 12:25				1																										1		
5/1/22 13:00																														1		
5/1/22 13:35	4	1										1																				
5/1/22 14:10	2						2																							4		
5/1/22 15:45	2						2				1																			3		
5/1/22 16:15	3																													2		
5/1/22 16:50												1																		1		
5/1/22 17:25	1						1																							1		
5/1/22 18:00																														2		
5/1/22 18:35	2						1																									
5/1/22 19:10	1			1			1																									
5/1/22 19:40							2					1																		1		
5/2/22 6:15							2																									
5/2/22 6:47							1																									
5/2/22 7:26	3																															
5/2/22 8:08	1						1																									
5/2/22 8:42	2																													1		
5/2/22 9:16	4						1																							5		
5/2/22 9:53	3	1																												3		
5/2/22 10:57	7																													1		
5/2/22 11:31	3						1																							1		
5/2/22 12:05	2																													1		
5/2/22 12:47	5																															
5/2/22 13:58	8						1																							2		
5/2/22 14:39	4																													1		
5/2/22 15:04	1						3																									
5/2/22 15:58	6	1					1																							3		
5/2/22 16:32																														2		
5/2/22 17:07							1																									
5/2/22 17:41	1						1																							3		
5/2/22 18:15																														1		
5/2/22 18:49							2																							3		
5/2/22 19:23							1																							1		
5/2/22 19:45	1																															
5/3/22 6:15							8																					5		1		
5/3/22 6:50	1						1																							8		
5/3/22 7:25																														3		
5/3/22 8:00	2	1				1																								2		
5/3/22 8:55	3	1					2																							3		
5/3/22 9:10	2											1																		3		
5/3/22 9:45		1																												5		
5/3/22 10:20	2																													3		
5/3/22 10:55	5	1																												12		
5/3/22 12:05	1						1																							11		
5/3/22 13:25	8	1					1																							10		
5/3/22 14:00	4	1					2																							1		
5/3/22 15:15	2						1																							3		
5/3/22 16:50	2	1					4																							2		
5/3/22 17:25	3																													4		
5/3/22 18:00	5						4																							6		

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/3/22 18:35	2		1	300															20				4						2						2																							1		
5/3/22 19:10	1			300															40				5						1			1			4																							2		
5/3/22 19:40	2			200		1		1											25				8												1																									
5/4/22 6:15				10				1											1				65												1																									
5/4/22 6:45				800															1				1																																			1		
5/4/22 7:07				100															1				2												4																							8		
5/4/22 7:55				10															15				9																																			2		
5/4/22 8:16				100															25				3						4																													2		
5/4/22 9:40	1			150															25										2																													3		
5/4/22 10:13				600															60										4																													7		
5/4/22 11:00				400				1											50										5																													5		
5/4/22 11:34	2			400															75										4																													5		
5/4/22 12:08				200															25										2						1																							5		
5/4/22 12:42	3			100															75										2						1																							2		
5/4/22 13:16				300															100										2	1					1																							1		
5/4/22 13:50	1			250															65				1						1						1																							4		
5/4/22 14:24	2			800															75				1						6						3																							2		
5/4/22 14:50	1			600															20											1																												1		
5/4/22 16:15	4			400															25																2																							4		
5/4/22 16:47	2		4	100															6				2												2																							1		
5/4/22 17:21			5	300															35				1						6			1																										6		
5/4/22 17:55	3		1	400															12										4			1																										4		
5/4/22 18:29	1			300															20										3						1																							6		
5/4/22 19:02				200															15																2																							8		
5/4/22 19:25			1	250			1												30																																							2		
5/5/22 6:20			1	25															1				4												3																							1		
5/5/22 7:00			1	60															15				4									1			4																							5		
5/5/22 11:49	3			80															1										1					1																										
5/5/22 12:20	1			1,000															1										4																															
5/5/22 13:00				800															4										3	1																														
5/5/22 13:35	15		1	800															3										1																													1		
5/5/22 15:15	10			1,000															2																1																							1		
5/5/22 16:40	2			800															2										10						1		1																							
5/5/22 17:35	4			900																									1						1																									
5/5/22 18:10	1			800															2																1																									
5/5/22 18:45	4			700						1									3																																									1
5/5/22 19:20	4		1	800															1																1																									
5/5/22 19:45	2		2	200				1																											1																									
5/6/22 6:30	0		1	200															5				15						1						4																									
5/6/22 8:01	0			1,100															10				3												1																							2		
5/6/22 8:22	7			1,000															10																2																									
5/6/22 9:00	0			100											1								1						2						2																									
5/6/22 9:33	3		2	200			2																						1					1	2																							2		
5/6/22 10:08	1		3	10			5												2					1				1						1	4																							2		
5/6/22 10:43	0			25			12												5										2					1	3																							1		
5/6/22 11:35	1		5	10			5												6				1					1							6																							5		
5/6/22 12:51	6		34	50			40			1									10				1					1	4					1	10		1																					4		
5/6/22 13:34	4		16	50			35												6													1			15																							1		1
5/6/22 14:09	1		20	20			20												10										3						15																							4		
5/6/22 14:44	3		22	15			30												6									1	1	2					20																							1		1
5/6/22 15:19	5		37	20			15												7					1					1						15																									
5/6/22 17:24	1		4	40			30												5		2		3	1				1	3					1	30																							7		
5/6/22 18:01	0		7	10			20												3		2		1	1				1							15																							16		
5/6/22 19:12	1		4	15			10												2				3					1							25																							10		
5/6/22 19:32	0		2	10			10												2																10																							2		
5/12/22 6:15				40			5	2															10	2																																		1		
5/12/22 6:50				600			2												1				2						4						1																							3		
5/12/22 7:25				15			1												1										1						1																					1		1		
5/12/22 8:35				200			1												4				4						2	2					1																							12		
5/12/22 9:10			1	175															2																																							1		
5/12/22 9:45				200															1				2					1	1			1																					1					2		
5/12/22 10:20				150															2										2																													2		
5/12/22 11:05				50															5										1																													5		
5/12/22 11:40				35															2					1					2																													1		
5/12/22 12:15			1	250															1											1																												5		
5/12/22 12:50	1			300																				1				1																														6		
5/12/22 13:25				350			1												1				3						2	1																												5		
5/12/22 14:00				225																									1																													3		
5/12/22 14:35				50							1																																															2		
5/12/22 15:10				200			1																						3	1																												4		
5/12/22 15:45				60							1								5					1					3	1																												1		
5/12/22 16:25				75															2																																									
5/12/22 17:00			1	175															1					1					1						1																							3		
5/12/22 17:35				500			1												2																																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE
5/12/22 18:10				60															1
5/12/22 18:45				125			1												1
5/12/22 19:20				400															1
5/12/22 19:40				150			1												2
5/13/22 6:05				2			1												
5/13/22 6:40				650															6
5/13/22 7:15				200															3
5/13/22 7:40				100															5
5/13/22 8:15	2			700															4
5/13/22 8:55	2			225															2
5/13/22 9:30				350			1												13
5/13/22 10:05				400															11
5/13/22 10:40			1	475															3
5/13/22 11:15	2		1	350															10
5/13/22 11:50	5			700			1												9
5/13/22 12:25	1			500															5
5/13/22 13:00	4			525															3
5/13/22 13:35	9			675															6
5/13/22 14:10	5			725															10
5/13/22 14:45	4			450			2							4					7
5/13/22 15:20	2			550															8
5/13/22 15:55	1			625				1											6
5/13/22 16:30	4		2	475															10
5/13/22 17:05				700								1							5
5/13/22 17:40	1			800															4
5/13/22 18:20	2			275			1	1											
5/13/22 19:15				900															3
5/13/22 19:40				1,000															
5/14/22 6:10				150			2									1			
5/14/22 6:45			1	500															10
5/14/22 7:19			5	100			1												12
5/14/22 7:53	1		2	250			3												15
5/14/22 8:27	3		4	500															15
5/14/22 9:01	1	1	10	150			1												8
5/14/22 9:35			14	200		1													12
5/14/22 10:09	2	3	1	800				1											10
5/14/22 10:43	2	1	1	800															15
5/14/22 11:17	3	5	2	100			2												4
5/14/22 11:51	2	10	2	200			1												6
5/14/22 12:30	12	6		400			2												12
5/14/22 13:04	7	1		300															15
5/14/22 13:38	7	5		200			4												10
5/14/22 14:12	8	2		500			1												5
5/14/22 15:00	2			1,000															2
5/14/22 16:45	3			700															5
5/14/22 17:22	3			75										15					2
5/14/22 17:56	2			25			2												2
5/14/22 18:30	3	3		600			2												10
5/14/22 19:00	2	1		30			2	1				1							2
5/14/22 19:26				10			3					1							1
5/15/22 6:05				10				1											
5/15/22 6:32	3			700				1											1
5/15/22 6:56	1		1	200			2												1
5/15/22 7:15	3		2	300			3												1
5/15/22 8:15	8	42	20	100		1	2	1								1			2
5/15/22 9:18	5	41		150			2												5
5/15/22 9:53	18	32		175			6							1					10
5/15/22 10:27	4	3		75			2												5
5/15/22 11:01	8	8		75			2												2
5/15/22 11:35	7	8		150															
5/15/22 12:10	31	2		125															2
5/15/22 13:05	17			80															1
5/15/22 13:20	25			60								2							1
5/15/22 14:28	6			200															1
5/15/22 14:44	22			150			2					1							1
5/15/22 15:20	5			400			1					1							
5/15/22 16:00	1			300															
5/15/22 16:35	5			100			2												1
5/15/22 17:10	1			40			2												
5/15/22 17:44	11			125															
5/15/22 18:18	3			125															1
5/15/22 18:52	5			40			2												
5/15/22 19:15	3			50				1											
5/15/22 19:40				200															

Date and Time (Lift Time)	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS
5/12/22 18:10																				
5/12/22 18:45									2											
5/12/22 19:20				1						3										
5/12/22 19:40																				
5/13/22 6:05		1		27																
5/13/22 6:40			1	12																
5/13/22 7:15				8																
5/13/22 7:40				3																
5/13/22 8:15				1																
5/13/22 8:55				1						3										
5/13/22 9:30				1						2										
5/13/22 10:05				2						1	1									
5/13/22 10:40				1																
5/13/22 11:15					1					1										
5/13/22 11:50					1					3										
5/13/22 12:25									2											
5/13/22 13:00																				
5/13/22 13:35										5						1				
5/13/22 14:10																				
5/13/22 14:45										1	1									
5/13/22 15:20																				
5/13/22 15:55				2	1															
5/13/22 16:30				2						4						1				
5/13/22 17:05											1									
5/13/22 17:40				2						2			1							
5/13/22 18:20				2												1				
5/13/22 19:15				2	1					1										
5/13/22 19:40																				
5/14/22 6:10				20												1				
5/14/22 6:45				15																
5/14/22 7:19				7																
5/14/22 7:53				3						1										
5/14/22 8:27																				
5/14/22 9:01										2										
5/14/22 9:35				1						3										
5/14/22 10:09				2																
5/14/22 10:43				1						4										
5/14/22 11:17				1	1					4										
5/14/22 11:51				2						3						2				
5/14/22 12:30				1					1	2										
5/14/22 13:04					1											1				
5/14/22 13:38										1	1									
5/14/22 14:12					1					1										
5/14/22 15:00																				
5/14/22 16:45				1					1	1						1				
5/14/22 17:22									1	1						2				
5/14/22 17:56				1																
5/14/22 18:30									1	1						2				
5/14/22 19:00				2												1				
5/14/22 19:26				1																
5/15/22 6:05				30											1	1				
5/15/22 6:32			1	2						1										
5/15/22 6:56				2																
5/15/22 7:15																				
5/15/22 8:15			1	1	1					1						2				
5/15/22 9:18				1	1				1	1	1				1	2				
5/15/22 9:53			1						1											
5/15/22 10:27									2	3	2									
5/15/22 11:01					1					1					1	2				
5/15/22 11:35				2	1				1	3						1				
5/15/22 12:10										4										
5/15/22 13:05				1																
5/15/22 13:20																				
5/15/22 14:28										1					1					
5/15/22 14:44					1				1	2						1				
5/15/22 15:20				1					1	2										
5/15/22 16:00																				
5/15/22 16:35																1				
5/15/22 17:10				1					1	1						1				
5/15/22 17:44															1	1				
5/15/22 18:18																				
5/15/22 18:52				1																
5/15/22 19:15																1				
5/15/22 19:40																				

Date and Time (Lift Time)	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/12/22 18:10																					
5/12/22 18:45																			1		
5/12/22 19:20																					
5/12/22 19:40																			2		
5/13/22 6:05																					
5/13/22 6:40																			1		
5/13/22 7:15																			1		
5/13/22 7:40																					
5/13/22 8:15																					
5/13/22 8:55																					
5/13/22 9:30																					
5/13/22 10:05																					
5/13/22 10:40																					
5/13/22 11:15																			2		
5/13/22 11:50																					
5/13/22 12:25																			2		
5/13/22 13:00																			1		
5/13/22 13:35																			1		
5/13/22 14:10																			1		
5/13/22 14:45																			1		
5/13/22 15:20																			1		
5/13/22 15:55																			1		
5/13/22 16:30																			3		
5/13/22 17:05																			2		
5/13/22 17:40																			2		
5/13/22 18:20																					
5/13/22 19:15																					
5/13/22 19:40																			2		
5/14/22 6:10																					
5/14/22 6:45																			1		
5/14/22 7:19																			1		
5/14/22 7:53																					
5/14/22 8:27																					
5/14/22 9:01																			1		
5/14/22 9:35																					
5/14/22 10:09																			1		
5/14/22 10:43																			3		
5/14/22 11:17																			2		
5/14/22 11:51																			3		
5/14/22 12:30																					
5/14/22 13:04																			2		
5/14/22 13:38																			1		
5/14/22 14:12																			2		
5/14/22 15:00																					
5/14/22 16:45																			2		
5/14/22 17:22																			3		
5/14/22 17:56																					
5/14/22 18:30																					
5/14/22 19:00																			1		
5/14/22 19:26																			1		
5/15/22 6:05																	2				
5/15/22 6:32																					
5/15/22 6:56																					
5/15/22 7:15																					
5/15/22 8:15																			3		
5/15/22 9:18																					
5/15/22 9:53																			3		
5/15/22 10:27																					
5/15/22 11:01																			3		
5/15/22 11:35																			1		
5/15/22 12:10																					
5/15/22 13:05																			1		
5/15/22 13:20																					
5/15/22 14:28																			1		
5/15/22 14:44																					
5/15/22 15:20																					
5/15/22 16:00																			3		
5/15/22 16:35																			1		1
5/15/22 17:10														1							
5/15/22 17:44																					
5/15/22 18:18																					
5/15/22 18:52																			2		
5/15/22 19:15																					
5/15/22 19:40																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/16/22 6:15				10			1	1															25																																					
5/16/22 6:37		1		300																			20						1																													1		
5/16/22 7:11	4	1		25			3																6						2						1																							2		
5/16/22 7:45	9			20			3												1				1						2						1																									
5/16/22 8:19	15			75			4					1							3					1					4																													2		
5/16/22 8:53	17	1		50			4												5				2						3						1																									
5/16/22 9:27	21			30			5							15					3																																							1		
5/16/22 11:02	39			400			5												4										15	2				1																								1		
5/16/22 11:34	14			40			2												4										1					1	1																									
5/16/22 12:08	8			10										100					2				1					2		1					1																							2		
5/16/22 12:42	25			25			1					1							2					1					5	2					1																							1		
5/16/22 13:37	21			50															4					1					1																															
5/16/22 14:10	26			10			2												3									1	1																															
5/16/22 14:44	17			75															5				1						1	1					1																									
5/16/22 16:25	10			200															1										1																													2		
5/16/22 16:39	32			250															1				2												2																							2		
5/16/22 17:21	13			35															1				3					1	1			1			2																									
5/16/22 17:54	9			40																			2						3						1																									
5/16/22 18:28	12			150																			3					2	1																															
5/16/22 19:02	8			100		1																	4						1																															
5/16/22 19:35	3			200																			3																																					
5/17/22 6:00	1			15			1	1															20											1	1																									
5/17/22 7:15	7			800																			2						3																											1		1		
5/17/22 8:45	2			15		1															1		2						2																													4		
5/17/22 10:10	15			75															5			1						1	4					1	1																							1		
5/17/22 10:50	2			25			1												4				1												1																							3		
5/17/22 11:25	1			20															2										1						1																							1		
5/17/22 12:00	4			25															2									1						1	1																							2		
5/17/22 12:35	7			75			1	1											5				1						2					1	1																							2		
5/17/22 13:25	9			200			2							10										1											1																							4		
5/17/22 14:00	12			1,000			1							4					8				1						1						1																							3		
5/17/22 14:35	1			400		1	2												5				1												1																							11		
5/17/22 15:10	4			40			7			1		2											2	2				2						2	2																							16		
5/17/22 15:45	12			300															2				3	2				1							4																							6		
5/17/22 16:20	8			400															1				1						2																													4		
5/17/22 17:30	8			140			1																3					1																														5		
5/17/22 18:05	10			150		1	1	1											2																																							1		
5/17/22 18:40	4			40																			2					1																														2		
5/17/22 19:15	6			150				1															2																																			2		
5/17/22 19:50	2			300		1		1															5												1																									
5/18/22 6:15				50																			25												4																									
5/18/22 6:50	4			975																																																								
5/18/22 7:55	26			450																			2																																			6		
5/18/22 8:15	53			100																																																						1		
5/18/22 9:05	45			100															1				2						3						1		1																					2		
5/18/22 9:39	18			50			1												4		1															1																								
5/18/22 11:30	13			350			1														1								2	1					1																							1		
5/18/22 12:14	21			15																			1					1	1																															
5/18/22 12:30	56			25		1	3							30					2										1																													2		
5/18/22 13:02	76			10			6												2				1	1					2	1									1																			2		
5/18/22 15:56	9			200			4							100					4				2	1					2						2																							4		
5/18/22 17:00	61			25			5												3									1	2						4																							1		
5/18/22 17:29	9			900			1																												1																							1		
5/18/22 17:57	19			300																								1							2																							2		
5/18/22 18:20	57			300			2					1							1													1																										1		
5/18/22 18:52	19			100		1	3												1										1						1																							1		
5/19/22 6:55				50			1															2	35																																			1		
5/19/22 7:28				600																			1																																			5		
5/19/22 8:19	9			60																			1																																					
5/19/22 9:04	1			20																			1																																					
5/19/22 9:40	2			10															1																																									
5/19/22 10:25	9			120			1																												1																									
5/19/22 11:40	4			50			2												1									2							2																							1		
5/19/22 12:15	4	1		40						1									2				1						1						1																							1		
5/19/22 13:15	11			600			1												1				1						3						2																							2		
5/19/22 13:55	7			300															3				1	1													1																							
5/19/22 14:30	3			40			3												2																																									
5/19/22 15:30	2			300																			1							1					2																							2		
5/19/22 17:45				500																			5												1																									
5/19/22 18:20				60						1													10																																					
5/19/22 18:55	1			120			1																18	1											1																									
5/19/22 19:30	1			450																			25												2																									
5/20/22 6:15				30																	1	2	75						1						1																									
5/20/22 7:22	3			1,100																		1	15																																			1		

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/20/22 8:00	5			125			5															2																																			
5/20/22 11:15	22			75						1													7					2							2																								1		
5/20/22 12:00	11	1		35																		2												1																							
5/20/22 12:30	90	1		23																2				8						1						1																							
5/20/22 13:55	13			20			10															1	15	1											1																							
5/20/22 14:30	8			225			5													2				3	1				1	1						2																							
5/20/22 15:05	4			260															1				4	1				1	1						2																							
5/20/22 15:40	18			400			4																	6					2	1						3																							
5/20/22 16:15	16			450				1																						2							1																							3		
5/20/22 16:50	4			500															1				7					1																														1		
5/20/22 17:25	3			350																					3					1	2	1					1																							
5/20/22 18:00	4			300			1					1									1		7																																					
5/20/22 19:05	3			375		2	10															4		8					1																														1		
5/20/22 19:30	1			425								1												10												2																							
5/21/22 6:22				1																				65																																					2				
5/21/22 6:54	15			200																				40																																						3		
5/21/22 7:27	42			30																				30																																							
5/21/22 8:00	30			25															1				15														1																									
5/21/22 8:37	44			70															3				10							2																															
5/21/22 10:18	45			15			3											1		3				6													1																									
5/21/22 13:14	2			200			3					2							2				20					1							2																							
5/21/22 13:48				400			5													2				15												2																							
5/21/22 14:21		1		200			1													1				12	1																																				1		
5/21/22 15:15	2	1		75			4													4				15												3																							
5/21/22 15:48	3			75			6					1												10												2																							
5/21/22 16:21	1			250								1												20					1							1																							
5/21/22 16:54	2			100																				30												1																							
5/21/22 17:27	2			150			1																	25	1				1							2																							
5/21/22 18:45				200								1												35												1																							
5/21/22 19:10	1			75		1																			40												2																							
5/21/22 19:41	1			65																				35												1																							
5/22/22 6:20	0			20																				250												1																						2				
5/22/22 6:50	0			975																				10																																							
5/22/22 7:30	2			1,100																				7																																							
5/22/22 8:05	11			525					1															4																																							
5/22/22 8:40	19			100			1													1				25												1																							
5/22/22 9:15	39			175																				35																																							
5/22/22 9:50	54			400																				8												1																							
5/22/22 10:25	4			400		2																		5						1						1																							
5/22/22 11:00	1			450																												1																															
5/22/22 11:35	7			850																				2												1																							
5/22/22 12:10	0			1,000																				15						1						4																							
5/22/22 13:00	8			600								1												13												1																							
5/22/22 13:35	0			700								9							1				25						3						1																							
5/22/22 14:10	0			300								80												10						2						1																							
5/22/22 14:50	1			500								45												20												4																							
5/22/22 15:25	0			150								25												20																																							
5/22/22 16:00	0			120								100												10						1						2																							
5/22/22 16:45	0			375								75												11																																							
5/22/22 17:20	0			70				1				10												15												1																							
5/22/22 18:50	0			900								30												20												1																							
5/22/22 19:25	0			950				1				15							1				30												9																							
5/24/22 6:20				200			2	1				25												150						1						15																						27		1		
5/24/22 7:25				500								5							1				50	1											1																						2		2		
5/24/22 8:00				300								2												8																																						2				
5/24/22 8:25				600																				2																																								1		
5/24/22 9:00				100								2												20							1					1																								5		
5/24/22 9:35	1			20			1																	30						1						2																								1		
5/24/22 10:10	4			25			2	1																	15												2																							
5/24/22 10:45	1			40								1							1				5					1							1																							
5/24/22 11:20	6			40															1				10					1				1			3																							
5/24/22 11:55	8			80															1				12												1																							
5/24/22 12:40				75								1							1				6												3																								1		
5/24/22 13:15	5			150										10			1		2				30												1																						1		1		
5/24/22 13:50	1			300			1													2				40					1																															
5/24/22 14:25	1			175								1							1				50												1																							
5/24/22 15:00	1			120								2												8																																							
5/24/22 15:35	2			225								1												6																																							
5/24/22 16:10				100			1																	3																																						1		
5/24/22 17:10	2			200								3							2				10																																						3		
5/24/22 17:45				125				1				1							1				7					1							1																							
5/24/22 18:20				60		1																			4					2							1																							
5/24/22 18:55				150															1				45					1																																4		
5/24/22 19:40				125																				40												1																						3		2	1	

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/25/22 6:15				10				2															80																																	19				
5/25/22 6:50				750																			15																																					
5/25/22 7:11				275																			10												1																									
5/25/22 7:45	3			60																			55												4																									
5/25/22 8:20				20				1															15									1			1																									
5/25/22 8:54	1			25																			5																																					
5/25/22 9:28				10																			3						1				1		2																									
5/25/22 10:02	1			25																			11						1																															
5/25/22 10:36				28				1				1											3						2																															
5/25/22 11:08				10																			13												1																									
5/25/22 11:42	1			12															1				4																																					
5/25/22 12:16	1			47			1							20									8																																					
5/25/22 13:15	2			150				2									2						7							1					1																									
5/25/22 13:49				600								1											13						3						1																									
5/25/22 14:13	1			700								1					2						9												1																							1		
5/25/22 14:47				80								1							1				5												1																							2		
5/25/22 15:21	2			1,200								2							3				11																																					
5/25/22 15:45				1,000								2											1																																					
5/25/22 16:19				65								2					1		1				6					1	1																															
5/25/22 16:53	2			70								1											12												1																							1		
5/25/22 17:23				175								2											3						2																															
5/25/22 17:57	4			150								1											6																																	1				
5/25/22 18:31				130				1															15																																					
5/25/22 19:05	1			200								1											9																																					
5/25/22 19:35	1			30																			4												1																							1		
5/26/22 6:15				5				1															65																																	4				
5/26/22 6:50				900																			15																																					
5/26/22 7:25				200		1																	10												1																									
5/26/22 8:00	1			100																			45						1																													1		
5/26/22 8:35				25				1															30																																					
5/26/22 9:10	8			35																			35																																					
5/26/22 9:45	8			250																			20						1						3																									
5/26/22 10:20	6			50				1															15						1																													1		
5/26/22 10:55	16			100																			10					1							1																							1		
5/26/22 11:30	14			75		1						2							1				14						1	1					2	1																						1		
5/26/22 12:10	1			300																			6												1																									
5/26/22 12:45	2			250																			10												1																							1		
5/26/22 13:20	2			500								2							1				8																																					
5/26/22 13:55	3			600																			6							1					1																							1		
5/26/22 14:50				650																			7						1																															
5/26/22 15:10	1			900																			3																																					
5/26/22 15:45	3			950				1				2											20																																					
5/26/22 16:20				600																			25																																					
5/26/22 16:55				150																			15																																					
5/26/22 17:30	3			1,000								4											10																																			2	1	
5/26/22 18:05				700																			15												1																							3	1	
5/26/22 18:50				500								2											15																																			1	2	
5/26/22 19:30	1			650								1											10												1																					1		5	1	
5/27/22 6:12				50																			125																																					
5/27/22 6:34				900																			75																																					
5/27/22 7:09				75				1															40																																					
5/27/22 7:43	2			60																			45																																				1	
5/27/22 8:18	7			75																			30												1																									
5/27/22 8:53	4			100																			25												2																									
5/27/22 9:27				45																			15												1																									
5/27/22 10:01	2			40																			4												2																									
5/27/22 10:35	1			30																			12																																					
5/27/22 11:08	2			60																			10																																					
5/27/22 12:43	1			120															1				20																																					
5/27/22 13:21				100																			25																																					
5/27/22 13:35				30				1															20																																					
5/27/22 15:31	1			275																			60						1						1																							2		
5/27/22 16:07	1			175																			70												2																									
5/27/22 16:40				130		1		1															55					1																														1		
5/27/22 17:13	1			80																			40												1																							1		
5/27/22 17:46				110		3		1															30																																			1		
5/27/22 18:19				85																			28												2																									
5/27/22 18:53				120				1															55									1			1																							1		
5/27/22 19:27				115																			33																																					
5/28/22 6:12																							50																																	2				
5/28/22 6:40				50		1																	50												1																									
5/28/22 7:10	1			2																			18												1																									
5/28/22 7:40	1			5		1																	8												1																									
5/28/22 8:10	2	1		2																			15												1																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/28/22 8:40	1			2				1				1					1		1				5																																					
5/28/22 9:10	2			5																			6												1																									
5/28/22 9:41				4																			10																																					
5/28/22 10:10	1			6																			2												4																							1		
5/28/22 10:40				5																			4																																					
5/28/22 11:10				2																			4																																					
5/28/22 11:40				6				1															3																																			1		
5/28/22 15:13				75		4	1					2											20					2	1						4																							3	1	
5/28/22 15:43				8		1						1											12					2	1			1			3																							1		
5/28/22 16:13				4				1															6																																					
5/28/22 17:13				25				1		1		2											20																																			1		
5/28/22 17:43				15																			12																																			1		
5/28/22 18:13				15																			30					1							1																							1		
5/28/22 18:43				20																			24					1																																
5/28/22 19:13																							12																																					
5/28/22 19:33				4			1																18																																				1	
5/29/22 6:16				5																			55																																					
5/29/22 6:48				10																			40																																					
5/29/22 7:22	2			3																			14																																					
5/29/22 7:56				11										1									4																																					
5/29/22 8:30				6																			7												2																									
5/29/22 9:09				1										1									5																																					
5/29/22 9:42	1			7																			6																																					
5/29/22 10:16				3																			2												1																									
5/29/22 10:50				2		2																	8																																					
5/29/22 11:24				1		1																	1																																					
5/29/22 11:57				2																	1		11						1						2																									
5/29/22 12:31				1								1											8					1	1						1																									
5/29/22 13:05				1																			7					2	1																															
5/29/22 13:39				4																			12						1						1																									
5/29/22 14:13				3								1		10									9						1						1																							2		
5/29/22 14:47				4																			6					2							1																									
5/29/22 15:21				14								2											10												1																							2		
5/29/22 15:55				8																			6												2																							1		
5/29/22 16:29				17				1				1											13												1																							1		
5/29/22 17:02				45																			10																																	1		1		
5/29/22 17:36				110																			16												1																									
5/29/22 18:10				120			6																25																																					
5/29/22 18:44				115																			19																																				1	
5/29/22 19:30				80			2																14					1																																
5/30/22 6:15				1																			120																																	4				
5/30/22 6:41				200																			25																																					
5/30/22 7:15				75																			35																																					
5/30/22 7:49				5																			50												1																									
5/30/22 8:23	1			1																			15												1																									
5/30/22 8:57	3			5								1											7												1																									
5/30/22 9:31				6																			10																																					
5/30/22 10:05				1																			9																																					
5/30/22 10:39																							4																																					
5/30/22 11:13				1																			3					1	1																															
5/30/22 11:47				2																			6																																					
5/30/22 12:21				5																			4						1																													1	1	
5/30/22 12:55	1			20			1																10																																			3		
5/30/22 13:29				75								1							1				15					2	2						3																							2		
5/30/22 14:03				100		1						1											20					1	2						3																									
5/30/22 14:37	1			150																			15					1		1					3																							4		
5/30/22 15:11				50				1				1											35				1								3																							1		
5/30/22 15:45				100															3				40							1					4																							8		
5/30/22 16:20				50								2											15					1							3																							14		
5/30/22 16:55				50		2													1				16					1							2																							4		
5/30/22 17:29				25								1											20					1	1																													6		
5/30/22 18:03				15								1											35												1																					1		2		
5/30/22 18:37				20								2											30												2																							2		
5/30/22 19:10				5																			20												1																									
5/30/22 19:34				10																			15												1																					2		3		
5/31/22 6:05				1																			100																																	19				
5/31/22 6:33				500																			30																																					
5/31/22 7:06				120																			30																																					
5/31/22 7:40				60		1																	10																																					
5/31/22 8:14				6																			8																																			1		
5/31/22 8:48				60																			5																																					
5/31/22 9:22				40																			3																																					
5/31/22 9:56	2			30										10									6												2																							1		
5/31/22 10:30				35		1																	6					1																															1	

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE
5/31/22 11:10	1			30																			3												
5/31/22 11:44	2			25																			4		1										
5/31/22 12:20				15																			3												
5/31/22 12:54	2			20																			4							1					
5/31/22 13:28				20			1												1				4												
5/31/22 14:07				45																			3					1							3
5/31/22 14:41				20																			5					1	1	1		1			
5/31/22 15:32				900								1											3					1	1						3
5/31/22 16:06				300		1						1											4						1						2
5/31/22 16:40				75				1				1											3						2						
5/31/22 17:14				200								1											12												2
5/31/22 17:48				175																			40												2
5/31/22 18:22				225				1															40						1						3
5/31/22 18:56				200			1					3											25						2						2
5/31/22 19:30				130																			25												1
6/1/22 6:20				2																			70												
6/1/22 6:52				10																			50												
6/1/22 7:26				2																			20												
6/1/22 8:00				30																			10												
6/1/22 8:34				100								1											15												
6/1/22 9:08				50			1										2						20												
6/1/22 9:42				20		1						1					1		1				25												2
6/1/22 10:16				25													5						10												
6/1/22 10:50				10			1										1						10												1
6/1/22 11:25				15													3		1				12												1
6/1/22 11:59				25													1						30												1
6/1/22 12:34				15													3		2				17												5
6/1/22 13:09				10								3											15												3
6/1/22 13:43				35								1											30												4
6/1/22 14:17				20																			20					2	2						2
6/1/22 14:51				75																			30					2							3
6/1/22 15:25				100								1											15						2	1					4
6/1/22 17:17				150		1											1						12												2
6/1/22 17:49				200																			40						1						2
6/1/22 18:25				75																			10						1						
6/1/22 18:59				50				1	1														16					1							
6/1/22 19:33				5																			20												2
6/2/22 6:25				1																			29					1							
6/2/22 7:00				5								1											50												
6/2/22 7:35				3																			41												
6/2/22 8:10				2																			23												
6/2/22 8:50				2																			21												
6/2/22 9:25				3																			5												
6/2/22 10:00				3																			13												
6/2/22 10:35				4																			20												1
6/2/22 11:10				1																			22												2
6/2/22 11:45				6			1										2						21												
6/2/22 12:20				4								1											26												
6/2/22 12:55				5													2						27												1
6/2/22 13:30				6																			35						1						1
6/3/22 6:35				0				1															35						1						
6/3/22 7:10				50																			15												
6/3/22 8:40				5																			6												
6/3/22 9:20				17								2					8		1				20												1
6/3/22 9:55				20								2					4						18												1
6/3/22 10:30				9				1															14						1						
6/3/22 11:05				15																			19										1		
6/3/22 11:40				1																			5												
6/3/22 12:15				1				1				1											12												2
6/3/22 12:50				3																			8						2						2
6/3/22 13:30				23								1											24						3						5
6/6/22 6:42				20								3											150						1						3
6/6/22 7:39				800																			35												
6/6/22 8:53	9			50																			15												
6/6/22 9:42	22			10																			10												2
6/6/22 10:45	9			9																			15												
6/6/22 11:40	6			1																			18												1
6/6/22 12:36				4																			8												
6/6/22 13:00				4																			2												2
6/6/22 13:32	1																						5												
6/7/22 6:48				4				5				1											22					1							
6/7/22 7:11	1			600								1											10												
6/7/22 7:57	2			35																			15												
6/7/22 8:49				20								1											10												1

Date and Time (Lift Time)	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/31/22 11:10																									
5/31/22 11:44																								1	
5/31/22 12:20																									
5/31/22 12:54																									
5/31/22 13:28																									
5/31/22 14:07																									
5/31/22 14:41																									
5/31/22 15:32																							2		
5/31/22 16:06																					1		2		
5/31/22 16:40																							3		
5/31/22 17:14																							3		
5/31/22 17:48																							1	1	
5/31/22 18:22																							1		
5/31/22 18:56																							3		
5/31/22 19:30																							3		
6/1/22 6:20																					66				
6/1/22 6:52																					8		1		
6/1/22 7:26																							1		
6/1/22 8:00																									
6/1/22 8:34																							1		
6/1/22 9:08																									
6/1/22 9:42																							2	2	
6/1/22 10:16																							1	1	
6/1/22 10:50																							1		
6/1/22 11:25																									
6/1/22 11:59																								3	
6/1/22 12:34																								1	
6/1/22 13:09																								1	
6/1/22 13:43																							2	1	
6/1/22 14:17																									
6/1/22 14:51																									
6/1/22 15:25																							3		
6/1/22 17:17																					1		2		
6/1/22 17:49																							1		
6/1/22 18:25																									
6/1/22 18:59																									
6/1/22 19:33																									
6/2/22 6:25																					59				
6/2/22 7:00																							8		
6/2/22 7:35																					1		1		
6/2/22 8:10																									
6/2/22 8:50																									
6/2/22 9:25																							1		
6/2/22 10:00																									
6/2/22 10:35																									
6/2/22 11:10																					2				
6/2/22 11:45																									
6/2/22 12:20																									
6/2/22 12:55																							1		
6/2/22 13:30																									
6/3/22 6:35																					89				
6/3/22 7:10																					1		3		
6/3/22 8:40																									
6/3/22 9:20																									
6/3/22 9:55																									
6/3/22 10:30																									
6/3/22 11:05																					1		2		
6/3/22 11:40																									
6/3/22 12:15																									
6/3/22 12:50																					1		3		
6/3/22 13:30																									
6/6/22 6:42																					117				
6/6/22 7:39																					1				
6/6/22 8:53																									
6/6/22 9:42																					1				
6/6/22 10:45																									
6/6/22 11:40																					1				
6/6/22 12:36																									
6/6/22 13:00																									
6/6/22 13:32																					1				
6/7/22 6:48																					11				
6/7/22 7:11																									
6/7/22 7:57																									
6/7/22 8:49																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
6/7/22 9:40				8																			3												1																									
6/7/22 10:30	3			10																			6																																					
6/7/22 11:20	8			7																			11						1						1																									
6/7/22 12:10	1			4																			7																																					
6/7/22 13:00	1			15																			8												2																									
6/7/22 13:30																						5																																					
6/8/22 6:20	0			7																			39																																	7				
6/8/22 7:15	0			1,100																			5																																					
6/8/22 7:45	1			600				1															6																																					
6/8/22 8:25	0			400				1						1									4																																					
6/8/22 9:15	1			50																			25																																					
6/8/22 9:55	1			80		1								15									10																																					
6/8/22 10:39	3			60		1		3						4									1												1																									
6/8/22 12:40	0			45													3						7					1																																
6/8/22 13:40	0			11		1		1				1											1												1																									
6/9/22 7:00								1						20	1								35																																	2				
6/9/22 7:30				850																			25																																					
6/9/22 8:07				150																			5																																					
6/9/22 8:38				23																			3												1																									
6/9/22 9:30	4			25																			1																																					
6/9/22 10:15				7		1																	10																																					
6/9/22 11:00	3			5																			5												1																									
6/9/22 12:20				6				1															7										1																											
6/9/22 13:00				4													1						3																																					
6/9/22 13:28																						1												1																									
6/10/22 6:45	0							1															30																																	2				
6/10/22 7:18	0			350				3						1	2								4																																					
6/10/22 8:08	0			70										1									2						1																															
6/10/22 8:58	1			40				1															4										1		1																									
6/10/22 9:48	1			50		1																	7					1																																
6/10/22 10:50	7			65																			10						1						3																									
6/10/22 12:09	3			600																			5					1	1																															
6/10/22 13:08	2			125								3		60									5												1																									
6/10/22 13:35	0			150								2		10									2																																					
6/13/22 6:30	0			5				2															25														1																			132				
6/13/22 7:30	0			550				1															20					2																												40				
6/13/22 8:20	0			50																			35																																	2				
6/13/22 9:10	0			4				1															6																																					
6/13/22 10:00	0			15								1											4																																	1				
6/13/22 10:50	0			8																			3																																					
6/13/22 11:40	1			6																			5																																	1				
6/13/22 12:30	0			6		1																	2																																	1				
6/13/22 13:00	0			17																			2					1																														1		
6/13/22 13:30	0			12				1																																																				
6/14/22 8:20				3																			44																																	74				
6/14/22 8:51				1,000				1															11																																				1	
6/14/22 9:28	1			400		1																	2												1																									
6/14/22 10:01	1			200																			2																																	1				
6/14/22 10:36				110																			4																																					
6/14/22 11:11				80																			5																																					
6/14/22 11:46				40																			10																																					
6/14/22 12:21				27				1															6																																					
6/14/22 12:56	2			35																			7																																					
6/14/22 13:29				85				2															3												1																									
6/15/22 6:29				8																			10																																	31				
6/15/22 7:05				800				1															20																																					
6/15/22 7:40				150																			7																																					
6/15/22 8:15				65																			3																																	1				
6/15/22 8:50				25																			5																																					
6/15/22 9:25				50													3						10												1																									
6/15/22 10:00				15		1																	4																																					
6/15/22 10:35				20													3						2												1																									
6/15/22 11:13				1													1						2																																					
6/15/22 11:50				5													3						5												1																									
6/15/22 12:25				10																			5																																					
6/15/22 13:28				6																			4																																					
Total	**2,314**	**183**	**778**	**468,662**	**-**	**53**	**488**	**106**	**2**	**8**	**7**	**548**	**-**	**611**	**86**	**2**	**55**	**-**	**4,175**	**-**	**16**	**11**	**7,644**	**47**	**1**	**-**	**1**	**106**	**550**	**63**	**-**	**16**	**6**	**22**	**887**	**2**	**16**	**-**	**9**	**15**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**2**	**-**	**-**	**767**	**-**	**735**	**24**	**4**

Catch of fishes at the Conowingo Dam West Fish Lift, 2022		
Number of Days	**70**	
Number of Lifts	**1,397**	
Fishing Time (hours : minutes)	**812:08:00**	
Number of Taxa	**36**	**% of Total**
AMERICAN SHAD	2,314	0.47%
HICKORY SHAD	0	0.00%
BLUEBACK HERRING	183	0.04%
ALEWIFE	778	0.16%
GIZZARD SHAD	468,662	95.84%
STRIPED BASS	53	0.01%
AMERICAN EEL	106	0.02%
Common Carp	548	0.11%
White Perch	488	0.10%
Hybrid Striped Bass*	9	0.00%
Rainbow Trout	2	0.00%
Brown Trout	8	0.00%
Tiger Trout*	4	0.00%
Splake*	2	0.00%
Chain Pickerel	1	0.00%
Muskellunge	7	0.00%
Tiger Muskellunge*	15	0.00%
Comely Shiner	611	0.12%
Spottail Shiner	86	0.02%
Spotfin Shiner	2	0.00%
Quillback	55	0.01%
Shorthead Redhorse	4,179	0.85%
Yellow Bullhead	16	0.00%
Brown Bullhead	11	0.00%
Channel Catfish	7,644	1.56%
Rock Bass	47	0.01%
Redbreast Sunfish	1	0.00%
Pumpkinseed	1	0.00%
Bluegill	105	0.02%
Smallmouth Bass	551	0.11%
Largemouth Bass	63	0.01%
Black Crappie	16	0.00%
Yellow Perch	22	0.00%
Walleye	883	0.18%
Tessellated Darter	6	0.00%
Atlantic Needlefish	2	0.00%
Sea Lamprey	16	0.00%
Northern Snakehead	738	0.15%
Flathead Catfish	767	0.16%
Blue Catfish	24	0.00%
Total	**489,026**	

* Denotes hybrid fish

American Shad sex ratio information, Conowingo Dam West Fish Lift, 2022.
No operation on March 27 and 28, April 9-12, May 7-11 and 23, and
June 4, 5, 11, and 12, 2022

Date	Sample size	Males	Females	Male:Female Ratio	
3/22/2022	0	0	0	N/A	
3/23/2022	0	0	0	N/A	
3/24/2022	0	0	0	N/A	
3/25/2022	0	0	0	N/A	
3/26/2022	0	0	0	N/A	
3/29/2022	0	0	0	N/A	
3/30/2022	0	0	0	N/A	
3/31/2022	0	0	0	N/A	
4/1/2022	0	0	0	N/A	
4/2/2022	0	0	0	N/A	
4/3/2022	0	0	0	N/A	
4/4/2022	0	0	0	N/A	
4/5/2022	0	0	0	N/A	
4/6/2022	0	0	0	N/A	
4/7/2022	0	0	0	N/A	
4/8/2022	0	0	0	N/A	
4/13/2022	0	0	0	N/A	
4/14/2022	0	0	0	N/A	
4/15/2022	0	0	0	N/A	
4/16/2022	0	0	0	N/A	
4/17/2022	0	0	0	N/A	
4/18/2022	0	0	0	N/A	
4/19/2022	0	0	0	N/A	
4/20/2022	0	0	0	N/A	
4/21/2022	0	0	0	N/A	
4/22/2022	1	0	1	N/A	
4/23/2022	0	0	0	N/A	
4/24/2022	0	0	0	N/A	
4/25/2022	0	0	0	N/A	
4/26/2022	1	1	0	N/A	
4/27/2022	4	3	1	1:	0.33
4/28/2022	2	1	1	1:	1.00
4/29/2022	15	5	10	1:	2.00
4/30/2022	51	33	18	1:	0.55
5/1/2022	36	19	17	1:	0.89
5/2/2022	21	9	12	1:	1.33
5/3/2022	23	14	9	1:	0.64
5/4/2022	20	11	9	1:	0.82
5/5/2021	46	31	15	1:	0.48
5/6/2021	33	22	11	1:	0.50
5/12/2022	1	1	0	1:	0.00
5/13/2022	44	33	11	1:	0.33
5/14/2022	63	42	21	1:	0.50

Date	Sample size	Males	Females	Male:Female Ratio	
5/15/2022	105	75	30	1:	0.40
5/16/2022	152	96	56	1:	0.58
5/17/2022	103	49	54	1:	1.10
5/18/2022	146	88	58	1:	0.66
5/19/2022	54	29	25	1:	0.86
5/20/2022	131	69	62	1:	0.90
5/21/2022	123	64	59	1:	0.92
5/22/2022	125	56	69	1:	1.23
5/24/2022	32	14	18	1:	1.29
5/25/2022	20	8	12	1:	1.50
5/26/2022	69	37	32	1:	0.86
5/27/2022	22	11	11	1:	1.00
5/28/2022	8	1	7	1:	7.00
5/29/2022	3	1	2	1:	2.00
5/30/2022	6	2	4	1:	2.00
5/31/2022	7	1	6	1:	6.00
6/1/2022	0	0	0	N/A	
6/2/2022	0	0	0	N/A	
6/3/2022	0	0	0	N/A	
6/6/2022	47	15	32	1:	2.13
6/7/2022	16	4	12	1:	3.00
6/8/2022	6	1	5	1:	5.00
6/9/2022	7	3	4	1:	1.33
6/10/2022	14	2	12	1:	6.00
6/13/2022	1	1	0	N/A	
6/14/2022	4	2	2	1:	1.00
6/15/2022	0	0	0	N/A	
TOTAL	**1,562**	**854**	**708**	**1: 0.83**	

Catch and effort of American Shad collected at the Conowingo Dam West Fish Lift during primary collection periods,* 1985-2022

Year	Number Days	Number Lifts	Fishing Hours	Total Catch	Catch Per Day	Catch Per Lift	Catch Per Hour
1985	37	839	328.6	1,518	41	2	4.6
1986	53	737	431.5	5,136	97	7	11.9
1987	49	1,295	506.5	7,659	156	6	15.1
1988	54	1,166	471.7	5,137	95	4	10.9
1989	46	1,034	447.2	8,216	179	8	18.4
1990	62	1,247	541	15,958	257	13	29.5
1991	59	1,123	478.5	13,273	225	12	27.7
1992	61	1,517	566	10,323	169	7	18.2
1993	41	971	398	5,328	130	5	13.4
1994	44	918	414	5,595	127	6	13.5
1995	64	1,216	632.2	15,588	244	13	24.7
1996	27	441	245.2	11,458	424	26	46.7
1997	44	611	295.1	12,974	295	21	44.0
1998	26	476	238.6	6,577	253	14	27.6
1999	43	709	312.6	9,658	225	14	30.9
2000	34	424	206.5	9,785	288	23	47.4
2001	41	425	195.1	10,940	267	26	56.1
2002	31	417	147.1	9,347	302	22	63.5
2003	31	637	171.8	9,802	316	27	57.0
2004	14	151	74.3	3,426	245	23	46.1
2005	30	295	165.9	3,896	130	13	23.5
2006	37	394	214.9	3,970	107	10	18.5
2007	29	288	135.3	4,272	147	15	31.6
2008	34	481	174.4	2,627	77	5	15.1
2009	28	282	144.1	6,534	233	23	45.3
2010	27	238	138.2	5,605	208	24	40.6
2011	15	144	85.6	3,074	205	21	35.9
2012	37	404	244	1,486	40	4	6.1
2013	24	288	134.1	2,030	85	7	15.1
2014	27	321	173.1	513	19	2	3.0
2015	19	194	100.5	875	46	4	8.7
2016	11	131	58.2	861	78	7	14.8
2017	13	123	56.4	736	56	6	13.0
2018	15	200	84.7	465	31	2	5.5
2019	20	227	124.3	390	19	2	3.1
2020	DID NOT OPERATE DUE TO COVID-19 PANDEMIC						
2021	59	1,378	552.5	6,825	115	5	12.3
2022	**70**	**1,397**	**812.1**	**2,314**	**33**	**2**	**2.8**

*Only applies to 1985-1995 data. Excludes early and late season catch and effort when less than 10 shad/day were taken.

Operations and fish catch at Conowingo Dam West Fish Lift, 1985 - 2022

Year	Number of Days	Total Fish (Millions)	Number of Taxa	American Shad	Hickory Shad	Alewife	Blueback Herring
1985	55	2.318	41	1,546	9	377	6,763
1986	59	1.831	43	5,195	45	2,822	6,327
1987	60	2.593	43	7,667	35	357	5,861
1988	60	1.602	49	5,169	64	712	14,570
1989	53	1.066	45	8,311	28	1,902	3,611
1990	72	1.188	44	15,964	77	425	9,658
1991	63	0.533	45	13,330	120	2,649	15,616
1992	64	1.560	46	10,335	376	3,344	27,533
1993	45	0.713	37	5,343	0	572	4,052
1994	47	0.564	46	5,615	1	70	2,603
1995	68	0.995	44	15,588	36	5,405	93,859
1996	28	1.233	39	11,473	0	1	871
1997	44	0.346	39	12,974	118	11	133,257
1998	41	0.575	38	6,577	6	31	5,511
1999	43	0.722	34	9,658	32	1,795	8,546
2000	34	0.458	37	9,785	1	9,189	14,326
2001	41	0.310	38	10,940	36	7,824	16,320
2002	31	0.419	35	9,347	0	141	428
2003	31	0.147	30	9,802	1	16	183
2004	14	0.039	30	3,426	0	0	1
2005	30	0.094	36	3,896	0	0	0
2006	37	0.163	38	3,970	0	2	6
2007	29	0.159	36	4,272	0	7	153
2008	34	0.733	37	2,627	0	2	7
2009	28	0.226	39	6,534	4	20	165
2010	27	0.158	36	5,605	1	1	81
2011	15	0.100	32	3,074	0	0	0
2012	37	0.322	38	1,486	0	0	7
2013	24	0.489	33	2,030	0	0	2
2014	27	0.597	33	513	0	13	233
2015	19	0.242	29	875	0	29	17
2016	11	0.179	25	861	0	20	14
2017	13	0.177	29	736	0	5	0
2018	15	0.315	29	465	3	6	21
2019	20	0.228	31	390	1	0	13
2020	DID NOT OPERATE DUE TO COVID-19 PANDEMIC						
2021	59	1.476	39	6,825	7	14	13
2022	**70**	**0.489**	**36**	**2,314**	**0**	**778**	**183**

American Shad and Gizzard Shad ratio information, Conowingo Dam West Fish Lift, 2022.

No operation on March 27 and 28, April 9-12, May 7-11 and 23, June 4, 5, 11, and 12, 2022.

Date	AMS	GS	AMS:GS Ratio	
3/22/2022	0	3,975	N/A	
3/23/2022	0	13,005	N/A	
3/24/2022	0	11,900	N/A	
3/25/2022	0	22,620	N/A	
3/26/2022	0	9,887	N/A	
3/29/2022	0	3,975	N/A	
3/30/2022	0	4,137	N/A	
3/31/2022	0	12,765	N/A	
4/1/2022	0	2,103	N/A	
4/2/2022	0	6,261	N/A	
4/3/2022	0	2,116	N/A	
4/4/2022	0	1,953	N/A	
4/5/2022	0	7,417	N/A	
4/6/2022	0	10,736	N/A	
4/7/2022	0	12,721	N/A	
4/8/2022	0	10,390	N/A	
4/13/2022	0	12,310	N/A	
4/14/2022	0	10,772	N/A	
4/15/2022	0	21,297	N/A	
4/16/2022	0	15,453	N/A	
4/17/2022	0	18,705	N/A	
4/18/2022	0	14,660	N/A	
4/19/2022	0	6,168	N/A	
4/20/2022	0	14,369	N/A	
4/21/2022	0	10,284	N/A	
4/22/2022	1	4,997	1:	4,997
4/23/2022	0	4,200	N/A	
4/24/2022	0	14,181	N/A	
4/25/2022	0	8,597	N/A	
4/26/2022	1	13,910	1:	13,910
4/27/2022	4	13,462	1:	3,366
4/28/2022	2	7,525	1:	3,763
4/29/2022	15	4,049	1:	270
4/30/2022	51	6,530	1:	128
5/1/2022	36	5,122	1:	142
5/2/2022	21	4,825	1:	230
5/3/2022	23	6,075	1:	264
5/4/2022	20	6,770	1:	339
5/5/2021	46	7,965	1:	173
5/6/2021	33	2,875	1:	87
5/12/2022	1	4,385	1:	4,385

Date	AMS	GS	AMS:GS Ratio	
5/13/2022	44	12,352	1:	281
5/14/2022	63	7,590	1:	120
5/15/2022	192	3,930	1:	20
5/16/2022	303	2,095	1:	7
5/17/2022	115	4,170	1:	36
5/18/2022	486	3,950	1:	8
5/19/2022	54	3,320	1:	61
5/20/2022	205	4,693	1:	23
5/21/2022	190	2,131	1:	11
5/22/2022	146	10,660	1:	73
5/24/2022	32	3,710	1:	116
5/25/2022	20	5,822	1:	291
5/26/2022	69	9,490	1:	138
5/27/2022	22	2,775	1:	126
5/28/2022	8	255	1:	32
5/29/2022	3	573	1:	191
5/30/2022	6	972	1:	162
5/31/2022	7	3,232	1:	462
6/1/2022	0	1,024	N/A	
6/2/2022	0	45	N/A	
6/3/2022	0	144	N/A	
6/6/2022	47	898	1:	19
6/7/2022	16	703	1:	44
6/8/2022	6	2,353	1:	392
6/9/2022	7	1,070	1:	153
6/10/2022	14	1,450	1:	104
6/13/2022	1	673	1:	673
6/14/2022	4	1,980	1:	495
6/15/2022	0	1,155	N/A	
TOTAL	**2,314**	**468,662**	**1:**	**203**

Conowingo EFL			
Date	Start Time	End Time	Total Daily Operation Time
3/22/2022	--	--	--
3/23/2022	15:35	18:40	3:05
3/24/2022	7:15	18:40	11:25
3/25/2022	7:30	18:40	11:10
3/26/2022	7:30	18:40	11:10
3/27/2022	--	--	--
3/28/2022	--	--	--
3/29/2022	12:46	18:40	5:54
3/30/2022	10:15	18:40	8:25
3/31/2022	7:15	18:40	11:25
4/1/2022	6:45	19:10	12:25
4/2/2022	6:43	19:10	12:27
4/3/2022	6:45	19:10	12:25
4/4/2022	6:40	19:10	12:30
4/5/2022	6:40	19:10	12:30
4/6/2022	6:50	18:45	11:55
4/7/2022	9:36	9:36	0:00
4/8/2022	10:17	19:10	8:53
4/9/2022	9:05	15:02	5:57
4/10/2022	--	--	--
4/11/2022	--	--	--
4/12/2022	6:41	19:10	12:29
4/13/2022	6:50	19:10	12:20
4/14/2022	6:41	19:15	12:34
4/15/2022	6:40	19:10	12:30
4/16/2022	6:40	19:10	12:30
4/17/2022	6:40	19:10	12:30
4/18/2022	6:40	19:10	12:30
4/19/2022	7:00	19:10	12:10
4/20/2022	6:50	19:10	12:20
4/21/2022	6:40	19:10	12:30
4/22/2022	6:40	19:10	12:30
4/23/2022	6:40	19:10	12:30
4/24/2022	6:40	19:10	12:30
4/25/2022	6:40	19:10	12:30
4/26/2022	6:40	19:10	12:30
4/27/2022	6:50	19:10	12:20
4/28/2022	6:45	19:10	12:25
4/29/2022	6:51	19:10	12:19
4/30/2022	6:40	19:10	12:30
5/1/2022	6:35	19:40	13:05
5/2/2022	6:10	19:40	13:30
5/3/2022	6:10	19:40	13:30
5/4/2022	6:20	19:45	13:25

Date	Start Time	End Time	Total Daily Operation Time
5/5/2022	6:42	19:40	12:58
5/6/2022	6:30	19:28	12:58
5/7/2022	6:10	18:47	12:37
5/8/2022	--	--	--
5/9/2022	--	--	--
5/10/2022	--	--	--
5/11/2022	6:10	19:40	13:30
5/12/2022	6:10	19:40	13:30
5/13/2022	6:10	19:40	13:30
5/14/2022	6:25	19:40	13:15
5/15/2022	6:10	19:30	13:20
5/16/2022	6:15	19:35	13:20
5/17/2022	7:40	19:38	11:58
5/18/2022	6:20	19:30	13:10
5/19/2022	6:38	19:20	12:42
5/20/2022	6:22	19:37	13:15
5/21/2022	6:15	19:30	13:15
5/22/2022	6:25	19:31	13:06
5/23/2022	14:00	19:35	5:35
5/24/2022	6:20	19:35	13:15
5/25/2022	6:15	19:25	13:10
5/26/2022	6:10	19:37	13:27
5/27/2022	6:10	19:30	13:20
5/28/2022	6:12	19:40	13:28
5/29/2022	6:15	14:45	8:30
5/30/2022	10:45	19:35	8:50
5/31/2022	6:12	19:42	13:30
6/1/2022	6:10	19:40	13:30
6/2/2022	7:02	13:40	6:38
6/3/2022	7:00	13:30	6:30
6/4/2022	--	--	--
6/5/2022	--	--	--
6/6/2022	7:00	13:40	6:40
6/7/2022	7:00	13:44	6:44
6/8/2022	6:45	13:06	6:21
6/9/2022	7:00	13:30	6:30
6/10/2022	7:00	13:30	6:30
6/11/2022	--	--	--
6/12/2022	--	--	--
6/13/2022	6:15	13:30	7:15
6/14/2022	8:00	13:30	5:30
6/15/2022	6:30	13:30	7:00

Conowingo East Fish Lift, Hourly Counts of Fish Species Captured

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
3/23/22 15:35																																																												
3/23/22 15:55																																																												
3/23/22 16:20				120																																																								
3/23/22 16:55																																																												
3/23/22 17:23																																																												
3/23/22 18:05				3																																																								
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3/24/22 8:00				3																															1																									
3/24/22 8:30																																																												
3/24/22 9:00																																	1																											
3/24/22 9:30																																			1																									
3/24/22 10:00				4																																																								
3/24/22 10:30				40																															1																									
3/24/22 11:00																							1																																					
3/24/22 11:30				4																								1							1																									
3/24/22 12:00				22															1				1												1																									
3/24/22 12:30				6																													1		2																									
3/24/22 13:00				50																															3																									
3/24/22 13:30				3																															2																									
3/24/22 14:00				22																							1																																	
3/24/22 14:30				12																																																								
3/24/22 15:00				15																																																								
3/24/22 15:30				11																															1																									
3/24/22 16:00				31																															1																									
3/24/22 16:30				50																																																								
3/24/22 17:00				39																																																								
3/24/22 17:30				9																																																								
3/24/22 18:00				9																															1																									
3/24/22 18:40				100																			2												1																									
3/25/22 7:30				5																															4																									
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3/25/22 9:00				4																																																								
3/25/22 9:30				27																																																								
3/25/22 10:00				15																																																								
3/25/22 10:30				150																			1																																					
3/25/22 11:00				32																																																								
3/25/22 11:30				3																																																								
3/25/22 12:00				10																																																								
3/25/22 12:30				25																															1																									
3/25/22 13:00				25																									1						2																									
3/25/22 13:30				2																															3																									
3/25/22 14:00				18																															1																									
3/25/22 14:30				23																																																								
3/25/22 15:00				11																																																								
3/25/22 15:30				85															2				1												5																									
3/25/22 16:00				15																			1												2																									
3/25/22 16:30				35																									1						1																									
3/25/22 17:00				42																																																								
3/25/22 17:30				28															1																1																									
3/25/22 18:00				86															2																																									
3/25/22 18:40				104																			1												1																									
3/26/22 7:30				4																																																								
3/26/22 8:00				8																																																								
3/26/22 8:30				9																															1																									
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3/26/22 9:30				45																																																								
3/26/22 10:00				35																															1																									
3/26/22 10:30				20																																																								
3/26/22 11:00				25																																																								
3/26/22 11:30				65						1									1																																									
3/26/22 12:00				40															1																																									
3/26/22 12:30				63																																																								
3/26/22 13:00				48																																																								
3/26/22 13:30				33																																																								
3/26/22 14:00				52						1																																																		
3/26/22 14:30				87																																																								
3/26/22 15:00				65	1																																																							
3/26/22 15:30				165																									1																															
3/26/22 16:00				72																																																								
3/26/22 16:30				852																									1																															
3/26/22 17:00				38																																																								
3/26/22 17:30				325																																																								
3/26/22 18:00				15						1																																																		
3/26/22 18:40				30																									1																															
3/29/22 12:46				2,800																																																								
3/29/22 13:17				800																																																								
3/29/22 13:47				52																																																								
3/29/22 14:17				19																																																								

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
3/29/22 14:47				7																																																								
3/29/22 15:20				3																																																								
3/29/22 15:45				3																																																								
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3/31/22 8:55				20																																																							
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3/31/22 9:55																																																												
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3/31/22 16:50				1,700																																																							
3/31/22 17:20				37																																																							
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3/31/22 18:15																																																												
3/31/22 18:40				1																																																							
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Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/2/22 13:50				3																																																								
4/2/22 14:20																																																											
4/2/22 14:50				1																																																							
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4/2/22 19:10																																																											
4/3/22 6:45				28																															3																									
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4/4/22 7:10				15																															1																									
4/4/22 7:40				14																																																							
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4/4/22 11:10				27																																																							
4/4/22 11:40				30																																																							
4/4/22 12:10				33																																																							
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4/4/22 13:40				18																																																							
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4/4/22 15:10				18															1																																										
4/4/22 15:40				55																																																							
4/4/22 16:10				10																																																							
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4/4/22 17:10				5																																																							
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4/4/22 18:10				23																																																							
4/4/22 18:40				12																																																							
4/4/22 19:10				2																																																							
4/5/22 6:40				150																															1																									
4/5/22 7:10				1																																																							
4/5/22 7:40				30															1																2																									
4/5/22 8:10				20																															1																									
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4/5/22 12:10				20															1																1																									
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4/5/22 13:40				65																															5																									
4/5/22 14:10				9																															1																									
4/5/22 14:40				25															1																2																									
4/5/22 15:10				17															2																1																									
4/5/22 15:40				15															1																2																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE
4/5/22 16:10				15															1																1
4/5/22 16:40				75																															
4/5/22 17:10				50																															
4/5/22 17:40				30																															
4/5/22 18:10				25															1																
4/5/22 18:40				12																															
4/5/22 19:10				16																															
4/6/22 6:50				85																															3
4/6/22 7:20				10															1																2
4/6/22 7:50				3																															
4/6/22 8:50				3																															1
4/6/22 9:20				1																															
4/6/22 9:50				6																															1
4/6/22 10:20				5																															
4/6/22 10:50				5																															
4/6/22 11:20				18																															
4/6/22 11:50				7																															
4/6/22 12:20				16																															
4/6/22 12:50				14															1																1
4/6/22 13:20				19															1																
4/6/22 13:50				17																															
4/6/22 14:20				20															1																
4/6/22 14:50				35																															
4/6/22 15:20				29																															
4/6/22 15:50				5										1					1																1
4/6/22 17:15				175															1																
4/6/22 18:45				49																									1						
4/7/22 9:36				300															1																1
4/8/22 10:17				1,200										1					6																3
4/8/22 17:45				500															1																2
4/8/22 18:03				2,400															1																1
4/8/22 18:40				75														1	1																
4/8/22 19:10				10																															1
4/9/22 9:05				65															3																1
4/9/22 9:38				90																															2
4/9/22 10:22				50																									1						
4/9/22 11:07				65																															1
4/9/22 11:52			1	40															2										1						
4/9/22 12:32				35				1																											1
4/9/22 13:07				35															1																2
4/9/22 13:52				110															6																2
4/9/22 14:27				35																															1
4/9/22 15:02				15															1																1
4/12/22 6:41																							1												
4/12/22 7:10																																			1
4/12/22 7:40				1																															
4/12/22 8:10				3																															
4/12/22 8:40																							1												1
4/12/22 9:10				1																															
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4/13/22 8:10				900																															1
4/13/22 10:02				600															5																
4/13/22 10:30				23															1				1												
4/13/22 11:00				11															3																
4/13/22 11:30				60															4				1												
4/13/22 12:00				9															1				1												
4/13/22 13:35				375															11																
4/13/22 14:30				24															2										1						
4/13/22 15:00				18															1																

Date and Time (Lift Time)	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
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Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/13/22 15:30				27															1										1																															
4/13/22 16:00				39																															1																									
4/13/22 16:35				65															3																																									
4/13/22 17:10				60															3																																									
4/13/22 17:40				20																																																									
4/13/22 18:10				22															2																																									
4/13/22 18:40				72															2																																									
4/13/22 19:10				55															5																1																									
4/14/22 6:41				450															20				1												14																									
4/14/22 7:10				55														1	2																1																									
4/14/22 7:40				80															1																																									
4/14/22 8:10				500															5										1						2																									
4/14/22 8:40				250															3																																									
4/14/22 9:10				400															5										1																															
4/14/22 9:40				900					1										6										1						1																									
4/14/22 10:10				600															2										1																															
4/14/22 10:40				400															3										3																															
4/14/22 11:10				35															3										1																															
4/14/22 11:40				350																									4																															
4/14/22 12:10				31										1															1						1																									
4/14/22 12:40				800															4																																									
4/14/22 13:10				75															1										1						1																									
4/14/22 13:40				85															1				1																																					
4/14/22 14:10				100															4																																									
4/14/22 14:40				75																			1						1																															
4/14/22 15:10				115															2										2						1																									
4/14/22 15:40				26															2				1																																					
4/14/22 16:45				450				1											7				3												2																									
4/14/22 17:15				25															2																																									
4/14/22 17:45				30															2																																									
4/14/22 18:15				40															1																																									
4/14/22 18:45				45															2																1																									
4/14/22 19:15				18															2				1																																					
4/15/22 6:40				800															40				2												21																									
4/15/22 7:10				40															5																1																									
4/15/22 7:40				80															11				1												1																									
4/15/22 8:10				40															2				4												1																									
4/15/22 8:40				1,100															3										1						1																									
4/15/22 9:10				1,500															3										2						1																									
4/15/22 9:40				1,700															3										1																															
4/15/22 10:10				500															4																1																									
4/15/22 10:40				2,500															2										3																															
4/15/22 11:10				1,700																									1																															
4/15/22 11:40				700															1																3																									
4/15/22 12:10				2,700																									3																															
4/15/22 12:40				2,000															4				1						1																															
4/15/22 13:10				800																									1						1																									
4/15/22 13:40				3,200															3										2																															
4/15/22 14:10				1,200															1				1																																					
4/15/22 14:40				3,200																															2																									
4/15/22 15:10				3,700																			1						1																															
4/15/22 15:40				1,200																			4																																					
4/15/22 16:10				2,500																			1																																					
4/15/22 16:40				3,200																									1																															
4/15/22 17:10				2,800																									1																															
4/15/22 17:40				3,300																																																								
4/15/22 18:10				2,000																									1																															
4/15/22 18:40				800																			2																																					
4/15/22 19:10	1			700																																																								
4/16/22 6:40				200															25				2												6																									
4/16/22 7:10				60			1												8																3																									
4/16/22 7:45				50															6				2												4																									
4/16/22 8:18				55															8				2												2																									
4/16/22 8:47				120															1																1																									
4/16/22 9:14				300															3				1						1																															
4/16/22 9:42				175															1																																									
4/16/22 10:10				400															2										2						1																									
4/16/22 10:38				450															3										1																															
4/16/22 11:08				250																																																								
4/16/22 11:38				250															1										2																															
4/16/22 12:08				300															1																																									
4/16/22 12:38				350																									1																															
4/16/22 13:08				350																									1																															
4/16/22 13:38				275																									1																															
4/16/22 14:08				400																																																								
4/16/22 14:38				350															1																																									
4/16/22 15:08				800																																																								
4/16/22 15:38				300																									2																															
4/16/22 16:08				900															1				1																																					
4/16/22 16:38				1,000															3										1																															
4/16/22 17:08				300																			1																																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/16/22 17:38	1			400															6				1																																					
4/16/22 18:08				350															1																																									
4/16/22 18:38				35															1				1																																					
4/16/22 19:10				60															1				2																																					
4/17/22 6:40				2,100			2											1	1																2																									
4/17/22 7:00				1,400						1									8		1		5												3																									
4/17/22 7:30				125				1											2				1												2																									
4/17/22 8:00	1			500															1										2						1																									
4/17/22 8:30				2,000															2				2						2																															
4/17/22 9:00				3,000																									1																															
4/17/22 9:30				1,600			1												1				1																																					
4/17/22 10:00				120															1																																									
4/17/22 10:30				800								1							4				1																																					
4/17/22 11:00	1			3,600																			1						1																															
4/17/22 11:30				500															3																																									
4/17/22 12:00				2,800															2										4																															
4/17/22 12:30				600										1									1						1																															
4/17/22 13:00				2,400	1																								1																															
4/17/22 13:30				2,500															1				1														1																							
4/17/22 14:00				3,100															1				1																																					
4/17/22 14:30	1			300																									2						2																									
4/17/22 15:00				2,800																			1						1																															
4/17/22 15:30				3,100			1								1								1																																					
4/17/22 16:00				3,000																			1																																					
4/17/22 16:30				2,900																															1																									
4/17/22 16:55				2,200																			1																																					
4/17/22 17:20				2,700			1																						1																															
4/17/22 17:45				2,800																																																									
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4/17/22 18:40				1,000																			1																																					
4/17/22 19:10				1,600															1																																									
4/18/22 6:40				65																																																								
4/18/22 7:10				30																																																								
4/18/22 7:40				32																																																								
4/18/22 8:10				170																																																								
4/18/22 8:40				1,200															1										1																															
4/18/22 9:10				925															1										1																															
4/18/22 9:40				725																																																								
4/18/22 10:10				1,350																															1																									
4/18/22 10:40				1,500																																																								
4/18/22 11:10				3,700															1										1																															
4/18/22 11:40				3,100																																																								
4/18/22 12:10				3,400																									1																															
4/18/22 12:40				2,800																																																								
4/18/22 13:10				2,650																																																								
4/18/22 13:40				3,450																									1																															
4/18/22 14:10				2,300																																																								
4/18/22 14:40				2,900											1																																													
4/18/22 15:10				950																																																								
4/18/22 15:40				875																																																								
4/18/22 16:10				1,600										2															2																															
4/18/22 16:40				1,450																									1																															
4/18/22 17:10				2,600																																																								
4/18/22 17:40				800																																																								
4/18/22 18:10	1			750																																																								
4/18/22 18:40				53																																																								
4/18/22 19:10				125																																																								
4/19/22 7:00				2,700																																																								
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4/19/22 8:00				110										1																																														
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4/19/22 9:00				700																			1																																					
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4/19/22 12:00				150																										1																														
4/19/22 12:25				125										2																																														
4/19/22 12:50				1,700																																																							
4/19/22 13:34				1,500																															1																									
4/19/22 14:05				300																																																							
4/19/22 14:40				1,300																																																							
4/19/22 15:10				35																																																							
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4/19/22 16:10				700																																																						
4/19/22 16:40				300																																																						
4/19/22 17:10				275																																																						
4/19/22 17:40				150																																																						
4/19/22 18:10				125																																																						
4/19/22 18:40				300																			1																																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/19/22 19:10				350																																																								
4/20/22 6:50				50																																																								
4/20/22 7:20				30																																																								
4/20/22 7:50				70																																																								
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4/20/22 12:00				60																														1																									
4/20/22 12:30				800																								1																															
4/20/22 13:00				125																																																								
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4/20/22 14:00				1,800																																																								
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4/20/22 15:00				2,100																																																								
4/20/22 15:30				675																																																								
4/20/22 16:00				1,500																																																								
4/20/22 16:30				75																																																								
4/20/22 17:10				1,300																																																								
4/20/22 17:40				135																																																								
4/20/22 18:10				70																																																								
4/20/22 18:40				50																																																								
4/20/22 19:10				120																																																								
4/21/22 6:40				1,500																														1																									
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4/21/22 7:40				400																																																								
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4/21/22 19:10				50																																																								
4/22/22 6:40				100																																																								
4/22/22 7:10				100																																																								
4/22/22 7:40				650																																																								
4/22/22 8:10				400																																																								
4/22/22 8:40				275																																																								
4/22/22 9:10				1,000																																																								
4/22/22 9:40				925																																																								
4/22/22 10:10				350																																																								
4/22/22 10:40				130																																																								
4/22/22 11:10				650																																																								
4/22/22 11:40				300																																																								
4/22/22 12:10				550																			1																																					
4/22/22 12:40				150																																																								
4/22/22 13:10				275																																																								
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4/22/22 14:10				70																								1						1																									
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4/22/22 15:40				120																								1																															
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4/22/22 16:40				75				1																																																				
4/22/22 17:10				125																																																								
4/22/22 17:40				150																								1																															
4/22/22 18:10				65																														1																									
4/22/22 18:40				23				1															1																																					
4/22/22 19:10				50																																																								
4/23/22 6:40				950																																																								
4/23/22 7:10				6																																																								
4/23/22 7:40				75																			1																																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/23/22 8:10				600																																																								
4/23/22 8:40				1,000																									1																															
4/23/22 9:10				500				1																					1																															
4/23/22 9:40				1,200																									1																															
4/23/22 10:10				500																									3																															
4/23/22 10:40				400																									2																															
4/23/22 11:10				400															1				1																																					
4/23/22 11:40				375															2										1																															
4/23/22 12:10				1,200																			1						2																															
4/23/22 12:40				150																									1																															
4/23/22 13:10				1,200																																																								
4/23/22 13:40				300																			1																																					
4/23/22 14:10				925																																																								
4/23/22 14:40				800																																																								
4/23/22 15:10				25																																																								
4/23/22 15:40				400																																																								
4/23/22 16:10				22															1										1																															
4/23/22 16:40				950																																																								
4/23/22 17:10				250															2				1																																					
4/23/22 17:40				500															1										1																															
4/23/22 18:10				40															1																																									
4/23/22 18:40				85																			1												1																									
4/23/22 19:10				250																															1																									
4/24/22 6:40	0			300															6																5																									
4/24/22 7:10	0			250															1				1																																					
4/24/22 7:40	0			225																									1																															
4/24/22 8:10	0			250																																																								
4/24/22 8:40	0			400																																																								
4/24/22 9:10	0			500																									1																															
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4/24/22 10:10				400																															1																									
4/24/22 10:40				350																																																								
4/24/22 11:10				400															1				1																																					
4/24/22 11:40				100										3																																														
4/24/22 12:10				400																																																								
4/24/22 12:40				450																																																								
4/24/22 13:10				450															1																																									
4/24/22 13:40				100															2									1																																
4/24/22 14:10				450																									1																															
4/24/22 14:40				350															4																																									
4/24/22 15:10				250															2																																									
4/24/22 15:40				400																															1																									
4/24/22 16:10				600															1																1																									
4/24/22 16:40				750															2																																									
4/24/22 17:10				200															3																1																									
4/24/22 17:40				70																			1												1																									
4/24/22 18:10				250															2				1																																					
4/24/22 18:40				60															3																																									
4/24/22 19:10				175															2				1												1																									
4/25/22 6:40				275																			1												3																									
4/25/22 7:10				425															1																3																									
4/25/22 7:40				400				1																																																				
4/25/22 8:10				75				1											3				1																																							
4/25/22 8:40				800															1																																									
4/25/22 9:10				600															3										3						2																									
4/25/22 9:40				450															5										2						1																									
4/25/22 10:10				500															4																																									
4/25/22 10:40				500															7										9						1																									
4/25/22 11:10				1,000															10																																									
4/25/22 11:40				800															8																																									
4/25/22 12:10				600															5										4						1																									
4/25/22 12:40				600													1		9										6																															
4/25/22 13:10				650															14										1																															
4/25/22 13:40				200															5										2						1																									
4/25/22 14:10				450															13										1																															
4/25/22 14:40				600															10				1																																					
4/25/22 15:10				450															10				2																																					
4/25/22 15:40	1			550															14																																									
4/25/22 16:10				550													1		12										1						2																									
4/25/22 16:40				45															15				1												4																									
4/25/22 17:10	1			80															12				2																																					
4/25/22 17:40	1			100															9				3												1																									
4/25/22 18:10				75															10				2																																					
4/25/22 18:40	1			80				1											28				2																																					
4/25/22 19:10				85															18				3																																					
4/26/22 6:40				500				1									1		5				3												2																									
4/26/22 7:10				500															4																																									
4/26/22 7:40				200															5																																									
4/26/22 8:10				250															5				2																																					
4/26/22 8:40				200															3																																									
4/26/22 9:10				1,300															4										1																															

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMPKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILLIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/26/22 9:40				275															7				1						3						1																							
4/26/22 10:10				850															6				1						4																													
4/26/22 10:40				1,400															8				1						1																													
4/26/22 11:10				1,100															3										1																													
4/26/22 11:40				2,000															2										2																													
4/26/22 12:10				1,900															2				1						1																													
4/26/22 12:40				65															8				1						1						1																							
4/26/22 13:10				1,200															5																																						
4/26/22 13:40				500															2																																						
4/26/22 14:10				500															8										2																													
4/26/22 14:40				800															1				2						1																													
4/26/22 15:10				1,500															4										2																													
4/26/22 15:40	2			400															2				1																																			
4/26/22 16:10	2			450															7				1												1																							
4/26/22 16:40	3			250															4				1																																			
4/26/22 17:10	2			200															12				2												2																							
4/26/22 17:40	4			1,800															10				5												3																							
4/26/22 18:10	1			1,200				1											10				5														1																						
4/26/22 18:40	4			400															8				2												1																							
4/26/22 19:10	2			150															5				4																																			
4/27/22 6:50				3,300															1				3																																			
4/27/22 7:20				0																			1												1																							
4/27/22 7:50				2,500															3				2												1																						1	
4/27/22 8:20				2,050															1				1						1																													
4/27/22 8:50				2,400															1				2						1																													
4/27/22 9:20				1,450															2										1																													
4/27/22 9:50				3,500																			1																																		
4/27/22 10:20				1,650															3				1																																		
4/27/22 10:55				2,250																																																				
4/27/22 11:45				2,750																																																			
4/27/22 12:20				3,200															3										4																													
4/27/22 12:55				3,000															1				1												1																							
4/27/22 13:20				1,600															6				4																																		
4/27/22 13:45	1			1,000															3																																					
4/27/22 14:10	1			3,000															2				1																																		
4/27/22 14:35	2			2,900						1									2																																					
4/27/22 15:05				1,300															4				2												1																							
4/27/22 15:38				2,800															2										1																													
4/27/22 16:08	4			1,350															4				1						1																													
4/27/22 17:04				3,600															2				3						2																													
4/27/22 17:35	8			60															1				2																																			
4/27/22 18:08	18			100															2																																					
4/27/22 18:43	6			1,200															2				3						1																													
4/27/22 19:10	10			1,100															1				1																																			
4/28/22 6:45				10															1																																					
4/28/22 7:15				8																																																					
4/28/22 7:45				10																																																			
4/28/22 8:20				5																																																			
4/28/22 8:50	1			300																																																		
4/28/22 9:20				450															1																																					
4/28/22 11:40				3,600																																																		
4/28/22 12:10				3,200																																																		
4/28/22 12:40				225							1			15																																								
4/28/22 13:10				1,500																																																		
4/28/22 13:40				450																																																		
4/28/22 14:10				500																																																		
4/28/22 18:00				5															1				1																																		
4/28/22 18:30				50				1															4																																		
4/28/22 18:50				200																			4																																	
4/28/22 19:10				40																			2																																	
4/29/22 6:51				12															2				1																																	
4/29/22 7:21				40															1																																					
4/29/22 7:50				50															2				1																																	
4/29/22 8:20				75																																																			
4/29/22 8:50				15																																																		
4/29/22 9:20				80																																																		
4/29/22 9:50				160																																																		
4/29/22 10:20				250																									2																													
4/29/22 11:40				2,700																									1																													
4/29/22 12:10	2			45																																																			
4/29/22 12:40	2			1,500																									1																													
4/29/22 13:10	1			300																																																		
4/29/22 13:40				3,000															1																																					
4/29/22 14:10				200															1																																					
4/29/22 14:40				3,200																									1																													
4/29/22 15:10	2			75															1																																					
4/29/22 15:40				600																																																		
4/29/22 16:10				3,300															1										2																													
4/29/22 16:40				2,100																																																	1		
4/29/22 17:10				1,000																																																	
4/29/22 17:40	1			800															1																		1																							

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
4/29/22 18:10				500															1																																									
4/29/22 18:40				40															2				1																																					
4/29/22 19:10				850															1				1																																					
4/30/22 6:40				15															1																																									
4/30/22 7:10				20																			1												1																									
4/30/22 7:40				250																																																								
4/30/22 8:10				1,200																																																								
4/30/22 8:40				1,300																																																								
4/30/22 9:10				700																									1																															
4/30/22 9:40				600																									1																															
4/30/22 10:10				500																									1																															
4/30/22 10:40				500																																																							
4/30/22 11:10				450																																																							
4/30/22 11:40				425																																																							
4/30/22 12:10				400																									1																															
4/30/22 12:40				40																																																							
4/30/22 13:10	1			75																																																								
4/30/22 13:40	1			400																																																								
4/30/22 14:10	1			350																																																								
4/30/22 14:40				300																																																							
4/30/22 15:10	1			350																									1																															
4/30/22 15:40	1			275																				1																																				
4/30/22 16:10				375																																																							
4/30/22 16:40				300																																																							
4/30/22 17:10	1			400																			1																																					
4/30/22 17:40	2			450															1																																									
4/30/22 18:10	3			250																																																								
4/30/22 18:40	10			500																									1																															
4/30/22 19:10	2			200																			1																																					
5/1/22 6:35	1																						1						1																															
5/1/22 7:05				125																			1																																					
5/1/22 7:35				700																									3																															
5/1/22 8:05				850																									4																															
5/1/22 8:35				850																									2																															
5/1/22 9:05				800																									1																															
5/1/22 9:35				1,000																									4																															
5/1/22 10:05	1			1,600																									1																															
5/1/22 10:35	2			1,300																																																								
5/1/22 11:05				1,000															1										2																															
5/1/22 11:35	1			750																									1																															
5/1/22 12:05				1,600																																																							
5/1/22 12:40				1,500																									2																															
5/1/22 13:10				1,200																																																							
5/1/22 13:40	3			450																																																								
5/1/22 14:10	2			1,500																																																								
5/1/22 14:40	3			500																									1																															
5/1/22 15:10	2			700																									2																															
5/1/22 15:40	1			350																									4																															
5/1/22 16:10	5			800																									2																															
5/1/22 16:40	1			125																									1																															
5/1/22 17:10	2			900																									6																															
5/1/22 17:40	2			750																									6																															
5/1/22 18:10	4			600															1										3																															
5/1/22 18:40	2			300																									3																															
5/1/22 19:10	3			850																									1																															
5/1/22 19:40	2			150															1																																									
5/2/22 6:10				12															2				1																																					
5/2/22 6:40				25															1																3																									
5/2/22 7:10				40				1											1				1												1																									
5/2/22 7:40				125															1										1																															
5/2/22 8:10				125															1				3						1																															
5/2/22 9:10				1,600															1																																									
5/2/22 9:40				500															1																																									
5/2/22 10:10				125															1				2																																					
5/2/22 10:40				700																																																							
5/2/22 11:10	2			250															1										2						1																									
5/2/22 11:40	1			800															2				1																																					
5/2/22 12:10				4															8										1																															
5/2/22 12:40	2			75															6										2						1																									
5/2/22 13:10	1			600															4																																									
5/2/22 13:40	1			85															4																																									
5/2/22 14:10	1			150													1		4			1	1						1						1																									
5/2/22 14:40	1	1		300				1									2		7				1																																					
5/2/22 15:10				80															6				2						1																															
5/2/22 15:40				75															4				2																																					
5/2/22 16:10				1,000															8										3						2																									
5/2/22 16:40				250															3				1						3																															
5/2/22 17:15	4			1,200													1		1				3												1																									
5/2/22 17:40	1			400													1		4																																									
5/2/22 18:10	3			500															6				2												1																									
5/2/22 18:40	2			500															3				2												1																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/2/22 19:10	2			70															2				5					1																																
5/2/22 19:40	2			45				1											10				3																																					
5/3/22 6:10				0																			2																																					
5/3/22 6:40				17															1				1																																					
5/3/22 7:10				100																									2																															
5/3/22 7:40				375															2				3						6																															
5/3/22 8:10	1			400															3										10																															
5/3/22 8:40				550																									5																															
5/3/22 9:10				600															2										7																															
5/3/22 9:40				400																									5																															
5/3/22 10:10				300																									4																															
5/3/22 10:40				1,500															1										5																															
5/3/22 11:10				250															1										2																															
5/3/22 11:40				1,400																									5																															
5/3/22 12:10				500													1		1										2																															
5/3/22 12:40				500													2												1																															
5/3/22 13:10				1,200													1												5																															
5/3/22 13:40	1			1,200													1												3								1																							
5/3/22 14:10				950															3										5																															
5/3/22 14:50	1			3,500																									3																															
5/3/22 15:15	2			100																									2																															
5/3/22 15:40	2			1,000															1										1																															
5/3/22 16:10				350																									4																															
5/3/22 16:40				2,000															4										4																													1		
5/3/22 17:10	5			150																									1																															
5/3/22 17:40	2			1,200															3										5																													1		
5/3/22 18:40	1			2,800															1										2																															
5/3/22 19:10	4			950																									2																															
5/3/22 19:40				500																									1																															
5/4/22 6:20				10																																																								
5/4/22 6:50				2																																																								
5/4/22 7:20				225															1				2																																					
5/4/22 7:50				2,000															2										1																															
5/4/22 8:20				2,800															1										4																															
5/4/22 8:50				300																									3																															
5/4/22 9:20				2,500																									2																															
5/4/22 9:50				1,700															4										3	1																														
5/4/22 10:20	2			2,100															1										7																															
5/4/22 10:50	2			150																																																								
5/4/22 11:20	1			3,300															1										5																															
5/4/22 11:50	11			140															1										4																															
5/4/22 12:20	18			1,500															1										2																															
5/4/22 12:55	17			3,600																			1																																					
5/4/22 13:35	35			2,300													1		1										1																															
5/4/22 15:25	9			1,200																									1																															
5/4/22 16:20	3			180																																																								
5/4/22 18:25	1			250																																																								
5/4/22 18:40	5			225																																																								
5/4/22 18:53	2			2,800																															1																									
5/4/22 19:08	2			1,000																																																								
5/4/22 19:21	5			3,050																															1																									
5/4/22 19:45	9			3,600																																																								
5/5/22 6:42	5			150																			2						1						1																							2		
5/5/22 7:17	28			2,900															2																1																									
5/5/22 8:25	9			1,900															2										1																															
5/5/22 9:02	23			1,900																												1																												
5/5/22 9:50	45			950															2				1																																					
5/5/22 14:00	0			3,600																																																								
5/5/22 14:30	13			3,000																																																								
5/5/22 15:05	4			2,800															1										1																															
5/5/22 15:35	1			2,800																																																								
5/5/22 18:30	1			2,800																																																								
5/5/22 18:50	0			2,700																																																								
5/5/22 19:10	2			2,700																																																								
5/5/22 19:20	2			2,700																																																								
5/5/22 19:40	49			2,700																																																								
5/6/22 6:30	1	1		600																			1						1																															
5/6/22 7:00	12	3		1,100																															3																									
5/6/22 7:30	27	1		400																															3																									
5/6/22 8:00	40			1,000															3										2						1																									
5/6/22 8:40	11			400																																																								
5/6/22 9:15	14			2,300																									3						2																									
5/6/22 9:51	11	1		100															5										2																															
5/6/22 14:15	1			150																																																								
5/6/22 14:28	0			2,600																									1																															
5/6/22 15:08	0			1,300																									1																															
5/6/22 18:52	0			600																																																								
5/6/22 19:02	0			1,000										1																																													
5/6/22 19:13	0			2,400																																																								
5/6/22 19:28	4			3,500																																																								
5/7/22 6:10	5			100															3				5																																					

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/7/22 6:52				2,700															6				10						3						1																									
5/7/22 7:32				1,500															4				3																																					
5/7/22 8:02	2			650																			2																																					
5/7/22 8:37	2			1,900															4				8												1																									
5/7/22 9:13	2			2,000																			5						2																															
5/7/22 9:47	1			2,000															5				4												1																									
5/7/22 10:22	1			100															7				1												1																									
5/7/22 12:00				3,600															5																2																									
5/7/22 12:35				2,800															1										1						1																									
5/7/22 13:05	1			1,700															5				4						1																															
5/7/22 13:35	1			200																		1	2												1																									
5/7/22 14:15	5			1,800																			3												1																									
5/7/22 14:55				2,500																																																								
5/7/22 15:25	1			1,800																																																								
5/7/22 16:00	3			2,200															3				3												2																									
5/7/22 16:35	9			500															1				8																																					
5/7/22 17:12	13			300																																																								
5/7/22 18:47	1			150																																																								
5/11/22 6:10	0			30																			79																																					
5/11/22 6:40	0			10																			101																																					
5/11/22 7:40	0			0																			15																																					
5/11/22 8:10	0			8																		1	22																																					
5/11/22 8:40	0			10																			18																																					
5/11/22 9:10	0			10										1					1				17																																					
5/11/22 9:40	0			5																			16																																					
5/11/22 10:10	0			5																			10																																					
5/11/22 10:40	0			15																			9																																					
5/11/22 11:10	0			9																			6																																					
5/11/22 11:40	0			10																			10																																					
5/11/22 12:10	0			8																			12																																					
5/11/22 12:40	0			15																			7																																					
5/11/22 13:10	0			10										1					1				11																																					
5/11/22 13:40	0			7																			12																																					
5/11/22 14:10	0			1															1				15																																					
5/11/22 14:40	0			10										1									3																																					
5/11/22 15:10	0			7																			11																																					
5/11/22 15:40	0			12																			7																																					
5/11/22 16:10	0			9																			9																																					
5/11/22 16:40	0			15																			10																																					
5/11/22 17:10	0			18																			15																																					
5/11/22 17:40	0			17																			25																																					
5/11/22 18:10	0			10																			40																																					
5/11/22 18:40	0			10			1																50																																					
5/11/22 19:10	0			1															1				45																																					
5/11/22 19:40	0			5																			30																																					
5/12/22 6:10				6													1						8																																					
5/12/22 6:40				12													1		1				15																																					
5/12/22 7:10				200															1				18						1																															
5/12/22 7:40				300																			10																																					
5/12/22 8:10				800																			10																																					
5/12/22 8:40				500																			12																																					
5/12/22 9:10				400																			5																																					
5/12/22 9:40				380																			2																																					
5/12/22 10:10				250																			2												1																									
5/12/22 10:40				300																			1																																					
5/12/22 11:10				800																			4																																					
5/12/22 11:40				350																			1																																					
5/12/22 12:10				250																			3																																					
5/12/22 12:40				300																			10																																					
5/12/22 13:10				200																			15																																					
5/12/22 13:40				200																			12																																					
5/12/22 14:10				150																			6																																					
5/12/22 14:40				125																			7																																					
5/12/22 15:10				100																			10																																					
5/12/22 15:40				75				1											1				25																																					
5/12/22 16:10				65																			25																																					
5/12/22 16:40				65																			28																																					
5/12/22 17:10				50																			22																																					
5/12/22 17:40				40																			26																																					
5/12/22 18:10				65															1				40																																					
5/12/22 18:40				48																			60																																					
5/12/22 19:10				50																			45																																					
5/12/22 19:40				65																			30																																					
5/13/22 6:10	0			2,800			1												2				45																																					
5/13/22 6:40	0			2,750													1		1				15																																					
5/13/22 7:10	0			800																			3																																					
5/13/22 7:40	0			400																			1																																					
5/13/22 8:00	0			3,000																			2																																					
5/13/22 8:20	0			2,500																			2																																					
5/13/22 8:50	0			2,000																									1																															
5/13/22 9:10	0			2,100															2				2						1																															

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/13/22 9:30	0			1,900															1		1								6																																
5/13/22 9:55	0			1,450													1							4						1																														
5/13/22 10:15	3			3,300															1					2						7																														
5/13/22 10:45	7			2,500																										7																														
5/13/22 11:05	4			2,400																					2						1																														
5/13/22 11:40	1			1,300																					2						1																														
5/13/22 12:00	1			3,100																										1																														
5/13/22 12:30	1			2,300																					1						1																														
5/13/22 12:55	3			2,800								1											2						4																														
5/13/22 13:25	0			1,500								1											1						3																														
5/13/22 13:50	2			2,200																					4						7																														
5/13/22 14:10	1			2,100																					4						1																														
5/13/22 14:35	2			300																										2																														
5/13/22 15:00	3			2,000															1																																										
5/13/22 15:25	0			800																										1																														
5/13/22 15:50	8			2,500															1				1																																						
5/13/22 16:15	5			1,900															1				1						1																														
5/13/22 16:40	6			3,300																					3																																				
5/13/22 17:00	12			2,800																					6						3																														
5/13/22 17:50	0			1,800																					10						1																														
5/13/22 18:20	1			600																					2													1																								
5/13/22 18:40	4			1,100																					15						2																														
5/13/22 19:00	5			1,600																					25						1																														
5/13/22 19:20	2			1,000																					4																																				
5/13/22 19:40	2			650																					75																																				
5/14/22 6:25				1,000															1				4																																				
5/14/22 6:55				2,800															2				2													2																								
5/14/22 7:25	1			1,200													1		2				5																																				
5/14/22 7:55				2,800													1		1																	1																								
5/14/22 8:25	3			2,000																					2						1																														
5/14/22 8:55				3,500																										2						1																								
5/14/22 9:20	1			3,600															1											1																														
5/14/22 9:40	1			4,000																										3																														
5/14/22 10:00	1			900															2											2																														
5/14/22 10:30	1			3,800															1											4																														
5/14/22 10:50	2			2,700																										1																														
5/14/22 11:10	1			2,700																										3																														
5/14/22 11:35				2,700															1																																										
5/14/22 12:05				3,600																										1																														
5/14/22 12:35				3,600																																																								
5/14/22 12:50				3,600																																																								
5/14/22 13:05				365																																																								
5/14/22 13:35	1			2,800															2											5																														
5/14/22 14:05	3			3,200																										1																														
5/14/22 14:45	1			3,200																					1						3																														
5/14/22 15:15				3,200																					3						2																														
5/14/22 15:30				3,200																										1						1																								
5/14/22 16:00	2			3,200				1																					1																														
5/14/22 16:30	2			3,200																																																								
5/14/22 17:00	9			3,500								1																																																
5/14/22 17:30	8			3,200								1											1																																				
5/14/22 18:40	3			3,000																					1																																				
5/14/22 19:10	6			3,000															1				3																																				
5/14/22 19:40	7			2,800																					2																																				
5/15/22 6:10	0			3,000																																																								
5/15/22 6:40	1			1,300																										1																														
5/15/22 7:10	0			1,400																					1																																				
5/15/22 7:40	3			2,100																										1						1																								
5/15/22 8:10	0			2,300													1													2																														
5/15/22 8:40	1	1		3,200			1																	6						2						1																						1		
5/15/22 9:05	1			250																					4						5																														
5/15/22 9:35	0			3,200																					1						3																												1		
5/15/22 10:05	0			300								1											1																																			1		
5/15/22 10:35	1			3,000																										5						2																								
5/15/22 11:05	0			1,900													1							4						2																														
5/15/22 11:35	5			1,400													1		1											4																														
5/15/22 12:05	1			2,800													1													2						1																								
5/15/22 12:35	11			2,800													1		1											6																														
5/15/22 13:00	14			1,400																					1						3						1																								
5/15/22 13:28	6			1,300								4					1							4						3																														
5/15/22 13:54	3			3,000								1					1		2				1						1																														
5/15/22 14:25	3			800																					1						2																														
5/15/22 14:55	2			700																					1						1						1																								
5/15/22 15:25	4			2,500								1							1				6						1						1																								
5/15/22 15:55	1			1,400															1				8						1																														
5/15/22 16:25	0			2,200																					1						4																														
5/15/22 16:55	8			1,900																					6						2																														
5/15/22 17:28	11			700													1							4						2																														
5/15/22 17:55	11			1,700															1				4																																				
5/15/22 18:25	29			1,100																					6						1																														
5/15/22 18:57	27			800				1																	4						1																														

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/15/22 19:30	9			1,200																			16																																					
5/16/22 6:15	1			1,500																			24												1																									
5/16/22 6:45	1			450								1							1				12												1																									
5/16/22 7:15	4			900																			2												1																									
5/16/22 7:45	11			1,200																			1						5						2																									
5/16/22 8:15	9			1,600																									5						1																									
5/16/22 8:45	9			60																			1						3						1																							1		
5/16/22 9:15	5			2,700													1												5						1																									
5/16/22 9:45	10			950													2		1				1						4						1																									
5/16/22 10:15	11			1,000													5												6																															
5/16/22 10:45	13			925				1																					3																															
5/16/22 11:15	6			1,000													1						1						5						1																									
5/16/22 11:45	1			450																									2						4																									
5/16/22 12:15	6			2,000													2												1						1																									
5/16/22 12:45	8			2,500								1					3						2						2																															
5/16/22 13:15	6			400													1						3						2																															
5/16/22 13:45	12			450																																																								
5/16/22 15:25	0			3,600													3																																											
5/16/22 15:40	4			250																																																								
5/16/22 15:58	4			200													2						4						2																															
5/16/22 16:30	1			3,200															2				2																																					
5/16/22 17:00	1			500								3					1						2																																					
5/16/22 17:35	6			1,500																			1																																					
5/16/22 18:05	16			1,000								1											20						2						1																									
5/16/22 18:35	9			1,200								1											3																																					
5/16/22 19:05	23			900													1																																											
5/16/22 19:35	15			600				1																																																		1		
5/17/22 7:40	1			3,500																			2						1						1																									
5/17/22 8:17	0			3,000																																																								
5/17/22 8:53	0			700																			2						3																															
5/17/22 9:28	1			3,200				1															1						1								1																							
5/17/22 10:03	0			2,800																			1						3																															
5/17/22 10:25	2			150																									2																															
5/17/22 10:50	1			2,900								1																	2																															
5/17/22 11:18	1			400															2																																									
5/17/22 11:43	0			2,500																			2						5																															
5/17/22 12:08	1			2,100																			1						2																															
5/17/22 12:33	1			1,900																			1																																					
5/17/22 12:58	4			160															1				1						2																															
5/17/22 13:23	2			3,300																			1																																					
5/17/22 13:48	3			1,000																									1																															
5/17/22 14:23	0			2,500																									1																															
5/17/22 15:00	0			3,500				1											1										4																															
5/17/22 15:31	4			2,600																									1																															
5/17/22 16:08	3			2,800															1																																									
5/17/22 16:43	3			2,500																									1						1																									
5/17/22 17:18	6			3,000																			1																																					
5/17/22 17:53	6			1,700																			2												1																									
5/17/22 18:28	3			1,600																			5																																					
5/17/22 19:03	10			700																			3																																					
5/17/22 19:38	6			300																			15						2						2																									
5/18/22 6:20	0			3,000																			15												3																							1		
5/18/22 6:50	3			1,300																			8												2																							1		
5/18/22 7:20	0			2,600				1															3						1																															
5/18/22 7:50	8			500			1	1															2						3						1																							1		
5/18/22 8:20	0			2,800				1															1																																					
5/18/22 8:50	1			1,400																			1						2																													1		
5/18/22 9:20	2			3,100																																																								
5/18/22 9:50	5			125																		1	1																																					
5/18/22 10:20	1			3,500																																																						1		
5/18/22 10:51	5			1,000																									3																															
5/18/22 11:20	3			2,400																			1																																					
5/18/22 11:50	3			1,600																			2						2																															
5/18/22 12:20	4			2,900													2												1																															
5/18/22 12:50	1			2,300																			1						2						1																									
5/18/22 13:20	0			750																									2																															
5/18/22 14:10	0			3,000																																																								
5/18/22 14:30	0			2,500																									1																															
5/18/22 15:05	0			2,500																									1																															
5/18/22 16:05	0			3,000																																																							
5/18/22 16:20	1			2,400																									1																															
5/18/22 16:35	1			800																									1																															
5/18/22 17:00	5			3,000																			3																																					
5/18/22 17:30	26			1,000																			1						1						1																									
5/18/22 18:00	5			2,900																			1												1																									
5/18/22 18:30	6			2,100																			1						1																															
5/18/22 19:00	28			600																			1						1						1																									
5/18/22 19:30	30			1,000																															1																									
5/19/22 6:38	1			300			1																20												1																							1		
5/19/22 7:13				2,800																															1																							2		
5/19/22 7:48	4			2,800																																																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/19/22 8:23	14			1,000																			4						1						1																		1							
5/19/22 8:58	2			3,500																																																							1		
5/19/22 9:33	2			3,500																									3																																
5/19/22 9:58	13			300																																																							1		
5/19/22 10:33	4			4,000																																																									
5/19/22 10:58	45			950																									2						1																										
5/19/22 11:28	5			3,800																									1																																
5/19/22 11:55	1			2,000																			2						2																																
5/19/22 12:20	1			3,000																									1																																
5/19/22 12:45				2,100																															1																										
5/19/22 13:08	2			650													2		1				4												1																										
5/19/22 13:38	1			3,000													1						2												1																										
5/19/22 14:08	3			2,500													2						1												2																										
5/19/22 14:38	7			2,500													2		1				5												1																										
5/19/22 15:08	5			2,200															1				5																																						
5/19/22 15:38	1			3,500																			2																																						
5/19/22 16:50	3			2,500																			4						1																																
5/19/22 17:20	2			2,600																			2						1																																
5/19/22 17:50	4			2,600																			2																																						
5/19/22 18:20	1			450																			11						1						1																										
5/19/22 18:50	5			475																			8																																						
5/19/22 19:20	1			500																			6						1						1																										
5/20/22 6:22	3	1		3,100			1																																																						
5/20/22 6:56	51	16		800																												1																													
5/20/22 7:35	2			2,900																																																									
5/20/22 8:06	2	1		2,100																																																									
5/20/22 8:30	8			1,400																															2																										
5/20/22 9:00	2			2,400																																																									
5/20/22 9:20	11			3,000																																																									
5/20/22 9:54	4			2,000																									1																																
5/20/22 10:28	1			3,300																			1																																						
5/20/22 11:02				1,700																			1						1						1																										
5/20/22 11:38				2,200													1						1												1																										
5/20/22 12:11				3,300			1																																																						
5/20/22 12:45	1			3,100																									3																																
5/20/22 13:23	0			3,000													1												2																																
5/20/22 13:58	15			700																																																									
5/20/22 14:32	2			3,400											1														1																																
5/20/22 15:08	10			2,400																																																									
5/20/22 15:42	1			2,700																									1																																
5/20/22 16:18				3,000																																																									
5/20/22 16:50				2,100																																																									
5/20/22 17:19	2			2,900																									1																																
5/20/22 17:53	11			2,400																																																									
5/20/22 18:27	13			1,400			1	1																					1						1																										
5/20/22 19:02	3			2,300																			6												3																										
5/20/22 19:37	8			1,900		1																	1																																						
5/21/22 6:15				2,800																			15												2																							1		
5/21/22 6:45	1			2,800																			6												1																										
5/21/22 7:10	4			2,800																			7						2						1																										
5/21/22 7:40				2,800																			5												1																										
5/21/22 8:05	2			2,500																	1		4						2																													1		
5/21/22 8:30	2			2,800								2									1								1																																
5/21/22 8:55	8			2,800																															1																										
5/21/22 9:20				2,800																			2																																			2		
5/21/22 9:45	4			500																																																									
5/21/22 10:15				3,800																			1																																						
5/21/22 10:40	1			2,800			1																9						2																																
5/21/22 11:05				4,000																									1																																
5/21/22 11:30	1			650																		1	8																																						
5/21/22 11:55	2			2,800																		1	5												1																										
5/21/22 12:20				1,500																									1																																
5/21/22 12:50				1,200								1																	1																																
5/21/22 13:20				3,000																									2																																
5/21/22 13:40	1			800																			6																																						
5/21/22 14:05				3,000																			1						2																																
5/21/22 14:35	1			2,500																									3																																
5/21/22 15:05				2,500																																																									
5/21/22 15:35				3,500																																																									
5/21/22 15:50	1			2,800																			2																																			1		
5/21/22 16:20				2,800																			2																																						
5/21/22 16:45				2,800																			1																																						
5/21/22 17:00	1			1,000								1											10						1																																
5/21/22 17:30				2,000																			2						1																																
5/21/22 18:00				2,500																			4																																			1		
5/21/22 18:30				1,100		1						1											3						1																																
5/21/22 19:00				3,500								1										1	19												1																										
5/21/22 19:30				2,800								1											15												1																										
5/22/22 6:25	2	1		40																																																									
5/22/22 7:00	19	1		100																									1						1																										
5/22/22 7:33	9	1		550																																																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH
5/22/22 8:06	5			800																			1
5/22/22 8:39	4			600																			2
5/22/22 9:12	5			180																			
5/22/22 9:46	3			1,200																			
5/22/22 10:20	1			150													1						
5/22/22 10:54	7			200															1				
5/22/22 11:28	2			2,400																			
5/22/22 12:01				2,400																			
5/22/22 12:18	6			2,200																			
5/22/22 12:52				2,600			1	1															
5/22/22 13:26	2			1,600																			
5/22/22 14:00				2,500																			
5/22/22 14:34	1			2,500																		1	
5/22/22 15:08	1			2,900								1					1						
5/22/22 15:42				3,000																			
5/22/22 16:16				2,600				1				1											1
5/22/22 16:50				2,450																			
5/22/22 17:24	1			2,700								2											
5/22/22 18:47				300																			2
5/22/22 18:58				2,600																		1	1
5/22/22 19:31				2,800								1									1		10
5/23/22 14:00				1,200																			
5/23/22 14:20				2,600																		2	1
5/23/22 14:40				1,400																		2	3
5/23/22 15:02				1,300								3							1				8
5/23/22 15:40				3,300																			3
5/23/22 16:15	1			3,000								3					1						1
5/23/22 16:45				2,000								2											3
5/23/22 17:15				3,400								1					3		1				6
5/23/22 17:45				1,600								2											4
5/23/22 18:15				1,000								2										1	3
5/23/22 18:45				3,200								5										2	100
5/23/22 19:10				1,500				1				2										1	35
5/23/22 19:35	1			1,100																			25
5/24/22 6:20				2,750																			
5/24/22 6:56				300			1																8
5/24/22 7:31				325																			6
5/24/22 8:05				4,000																			6
5/24/22 8:39				3,500																			
5/24/22 9:13				3,500																			1
5/24/22 9:47				3,500																			1
5/24/22 10:21				2,500																			5
5/24/22 10:55				2,500																			4
5/24/22 11:29				2,650																			21
5/24/22 12:03				2,000																			3
5/24/22 12:37				2,200																			5
5/24/22 13:11				2,200																			3
5/24/22 13:45				2,200								1											2
5/24/22 14:19				2,200																			2
5/24/22 14:53				2,200																			2
5/24/22 15:22				2,200															1				3
5/24/22 15:56	1			2,400				1															1
5/24/22 16:30				2,500																			3
5/24/22 17:04				2,500																			1
5/24/22 17:40	1			2,000								2											5
5/24/22 18:14				1,900								2											6
5/24/22 18:48				1,200								1											16
5/24/22 19:35				1,600								1							1				25
5/25/22 6:15		1		20			3																3
5/25/22 6:45		1		25			4																
5/25/22 7:15	1			70																			1
5/25/22 7:45	1	1		550				1															
5/25/22 8:15	2			300																			
5/25/22 8:45				25			1												1				
5/25/22 9:15				2,400			1																
5/25/22 9:45				2,200																			
5/25/22 10:15				2,500																			
5/25/22 10:40				1,600			1																
5/25/22 11:05				1,400																			
5/25/22 11:30				1,400																			
5/25/22 11:55	1			2,000																			1
5/25/22 12:20				1,200																			
5/25/22 12:45				1,700																			
5/25/22 13:10				1,600																			1
5/25/22 13:35	1			2,300																			3
5/25/22 14:00	1			2,400																			1
5/25/22 14:25				1,600																			1
5/25/22 14:50				2,100																			
5/25/22 15:15				1,700																			
5/25/22 15:40				1,700																			7
5/25/22 16:05				1,900																			13

Date and Time (Lift Time)	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/22/22 8:06						1						2																									
5/22/22 8:39						1						1																									
5/22/22 9:12																																					
5/22/22 9:46						1																															
5/22/22 10:20																																					
5/22/22 10:54																																					
5/22/22 11:28																																					
5/22/22 12:01																																					
5/22/22 12:18						2																													1		
5/22/22 12:52																																					
5/22/22 13:26							1																														
5/22/22 14:00																																					
5/22/22 14:34																																					
5/22/22 15:08						1																															
5/22/22 15:42																																					
5/22/22 16:16						1																															
5/22/22 16:50																																					
5/22/22 17:24												1																									
5/22/22 18:47																																					
5/22/22 18:58																																					
5/22/22 19:31												2																									
5/23/22 14:00																																					
5/23/22 14:20						1																													2		
5/23/22 14:40																																			2		
5/23/22 15:02																																			16		
5/23/22 15:40																																			1		
5/23/22 16:15						1																													1		
5/23/22 16:45						1						1																									
5/23/22 17:15						1					1	1																							3		
5/23/22 17:45												1																									
5/23/22 18:15												1																									
5/23/22 18:45						1						4																							2		
5/23/22 19:10												2																							2		
5/23/22 19:35												2																									
5/24/22 6:20																																					
5/24/22 6:56																																					
5/24/22 7:31																																					
5/24/22 8:05																																					
5/24/22 8:39																																					
5/24/22 9:13																																					
5/24/22 9:47												2																									
5/24/22 10:21																																					
5/24/22 10:55												1																									
5/24/22 11:29												1																									
5/24/22 12:03																																					
5/24/22 12:37																																					
5/24/22 13:11																																					
5/24/22 13:45												1																									
5/24/22 14:19																																					
5/24/22 14:53																																					
5/24/22 15:22						1																															
5/24/22 15:56												1																									
5/24/22 16:30																																					
5/24/22 17:04																																					
5/24/22 17:40												1																									
5/24/22 18:14																																					
5/24/22 18:48																																					
5/24/22 19:35												1																									
5/25/22 6:15																																					
5/25/22 6:45																																					
5/25/22 7:15												1																									
5/25/22 7:45																																					
5/25/22 8:15																																					
5/25/22 8:45																																					
5/25/22 9:15						1																															
5/25/22 9:45												1																									
5/25/22 10:15																																					
5/25/22 10:40																																					
5/25/22 11:05																																					
5/25/22 11:30						1																															
5/25/22 11:55												1																									
5/25/22 12:20																																					
5/25/22 12:45						1																													2		
5/25/22 13:10																																					
5/25/22 13:35																																			1		
5/25/22 14:00																																					
5/25/22 14:25																																					
5/25/22 14:50						1																													1		
5/25/22 15:15																																			1		
5/25/22 15:40																																			6		
5/25/22 16:05																																			1		

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/25/22 16:30				1,700																				1																																			2		
5/25/22 16:55				1,700								1												1						1																													1		
5/25/22 17:20	2			1,700								1												1						3																													3		
5/25/22 17:45	1			1,400								2												3																																			2		
5/25/22 18:10				1,600								3												2																																			3		
5/25/22 18:35				300				1															7																																			9		
5/25/22 19:00				1,100																				3																																			2		
5/25/22 19:25				600				1															20																																			1		
5/26/22 6:10				150																				7																																					
5/26/22 6:44				2,000																				7																																					
5/26/22 7:18	1			2,200																				2												1																									
5/26/22 7:52				1,700																										1																															
5/26/22 8:26				2,100																				1																																					
5/26/22 9:00	1			2,400																				2												1																									
5/26/22 9:34	2			2,500																				2																																					
5/26/22 10:08	1			2,000																				1						1						1																							1		
5/26/22 10:42				2,400																				1						2						1																									
5/26/22 11:16				2,000																				1						1																													1		
5/26/22 11:50	1			1,500											1								1						1																													5		
5/26/22 12:24	1			1,400																				2																																					
5/26/22 12:58	1			650										15									1																																					
5/26/22 13:32				1,300								1												2						1						1																									
5/26/22 14:06				1,700																				3												1																							1		
5/26/22 14:40	1			2,000																										1																													1		
5/26/22 15:14	0			2,500																				4																																			1		
5/26/22 15:48	1			1,900								2												2																																			1		
5/26/22 16:22	1			2,100								1												5																																			3		
5/26/22 16:56	1			1,500																				1												1																									
5/26/22 17:30				2,600				1															5																																					
5/26/22 18:04				2,500																				5												3		1																					4		
5/26/22 18:38	1			1,200				1															6						1						2																									
5/26/22 19:12				2,800								1												15												4																							2		
5/26/22 19:37				250								1												20												2																									
5/27/22 6:10	1	4		100			2																1												2																									
5/27/22 6:40	4			300																				2												1																									
5/27/22 7:10	5			750																				2												1																									
5/27/22 7:40	13	1		400																																																								
5/27/22 8:10	21	2		40								1																																																
5/27/22 8:40	24	2		250																																																								
5/27/22 9:10	14	1		200																															1																									
5/27/22 9:40	13	5		225								1		1																																													
5/27/22 10:10	10	9		150																															3																									
5/27/22 10:40	11	2		250																															1																									
5/27/22 11:10	14	1		700				1																				1							2																									
5/27/22 11:40	15	1		250																				1																																					
5/27/22 12:10	13	2		300																				3																																					
5/27/22 12:40	11			200													1		1				1																																					
5/27/22 14:57	0			1,000																				4						1																															
5/27/22 15:12	0			1,400																				1						1						2																									
5/27/22 15:26	0			1,300																				2						1																															
5/27/22 15:42	1			1,100																				20												1																									
5/27/22 16:10	0			2,500																				4												1																									
5/27/22 16:40	0			2,800																				7												1																									
5/27/22 17:10	3			1,600								1												10																																					
5/27/22 17:40	2			1,000								3												18												1																									
5/27/22 18:10	2			700								2												12																																					
5/27/22 18:40	4			900																				15																																					
5/27/22 19:05	2			600								1												20																																					
5/27/22 19:30	1			1,100								3												18																																					
5/28/22 6:12				65										1									1																																					
5/28/22 6:47	4	1		18										1									1												1																									
5/28/22 7:21				480																															1																									
5/28/22 7:54	2	2		21																																																								
5/28/22 8:28	2	1		125																																																								
5/28/22 9:02	3	14		175										1,000																																													
5/28/22 9:36	10	2		325										800																																													
5/28/22 10:10	6	6		200										200									3																																					
5/28/22 10:44				500										150																																													
5/28/22 11:18		3		450										50																																													
5/28/22 11:42				1,200																				1																																			1		
5/28/22 14:28	4			200																				13												1																									
5/28/22 15:02				425																				6																																					
5/28/22 15:36				1,200																				4					1																																	
5/28/22 16:10				2,000																				1																																					
5/28/22 16:44				2,700		2																	2						1																													2		
5/28/22 17:34	1			300																				10												1																							1		
5/28/22 18:08				2,700								1												2												1																									
5/28/22 18:42				500																				8												1																									
5/28/22 19:16				2,700																				15																																					
5/28/22 19:40				250																				20												1																									
5/29/22 6:15				1,700																																																								

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMPKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILLIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
5/29/22 6:45	2	1		250																															1																								
5/29/22 7:15	5			1,100																																																														
5/29/22 7:45	6			200																		1	1													1																								
5/29/22 8:15	7			850																															1																								
5/29/22 8:45	5			600				1																											1																								
5/29/22 9:15	3			160																			1																																				
5/29/22 9:45	5			250																			1																																				
5/29/22 10:15	1			1,000																																																								
5/29/22 10:45				13								1											1													1																								
5/29/22 11:15	3			500																			1						1																														
5/29/22 11:45	1			1,500																			1																																				
5/29/22 12:15				1,700				1															2													1																								
5/29/22 12:45	1			1,500				1															2						1																														
5/29/22 13:15	1			1,350		1																	2						1																														
5/29/22 13:45				2,400																			1						1																														
5/29/22 14:45				750																			4																																				
5/30/22 10:45				20																															1																								
5/30/22 11:05				22																															3																								
5/30/22 11:30	5			9			1	1																											2																								
5/30/22 11:55	1			17																															2																								
5/30/22 12:25	1			125				1			1								1				1																																				
5/30/22 12:55				175													1																		1																								
5/30/22 13:25	4			200				1															1					1	1						1																							2		
5/30/22 13:55				1,200								1																																																
5/30/22 14:25				1,500																			1				1																														
5/30/22 14:55	1			1,100																			1						2						1																								
5/30/22 15:25	1			2,200				1																																																		
5/30/22 15:55	4			1,900															1																																							
5/30/22 16:25	1			2,000								1											3																																				
5/30/22 16:55				800								1											2						1																														
5/30/22 17:25				1,100								1											2																																				
5/30/22 17:50				750																																																					
5/30/22 18:15	2			800				2															2													1																								
5/30/22 18:40	1			700																			3																																				
5/30/22 19:05				600								2											7																																				
5/30/22 19:35				950																			12													2																								
5/31/22 6:12	1			18		1	1	1																											2																								
5/31/22 6:46	1			450				1															2													1																								
5/31/22 7:20	3			450				1																																																	
5/31/22 7:54	3			150																									1																														
5/31/22 8:28	2			1,200																																																				
5/31/22 9:02	6			225																																																					
5/31/22 9:36	4			325													1																																									
5/31/22 10:10	1			250																																																				
5/31/22 10:44	3			600																			1													2																								
5/31/22 11:18	2			300																			1																																				
5/31/22 11:52	4			550																																																				
5/31/22 12:26	4			400		1																																																	
5/31/22 13:00	4			350																									1																														
5/31/22 13:34	4			325																																																		
5/31/22 14:08	2			200																									1																														
5/31/22 14:42				100																																																			
5/31/22 15:16				150																			2																																				
5/31/22 15:50				380																			4						1																														
5/31/22 16:24				1,200		1																	1													1																								
5/31/22 16:58				1,200		1						1											1													1																								
5/31/22 17:32	2			1,200								4											1						2																														
5/31/22 18:06				1,200				1				12					1						3																																				
5/31/22 18:40				1,200								1											1																																				
5/31/22 19:14				600																			4						1							1																								
5/31/22 19:42				365																			3													1																								
6/1/22 6:10	1			120		1		1															1																																				
6/1/22 6:40	1			750																																																				
6/1/22 7:10	0			1,000																			1																																		
6/1/22 7:40	5			92				1																																															
6/1/22 8:10	2			900																																																			
6/1/22 8:40	7	1		140																			1																																		
6/1/22 9:10	3			1,200																																																		
6/1/22 9:40	11			300																																																		
6/1/22 10:10	24			300																			1																																		
6/1/22 10:40	10			650																																																		
6/1/22 11:10	12			500					1														1													1																								
6/1/22 11:40	12			500																																																		
6/1/22 12:10				400																									1																														
6/1/22 12:40	6			600																									4																														
6/1/22 13:10	4			200																			1						2																														
6/1/22 13:40	2			52																			2						1																														
6/1/22 14:10				125									3									1	1						4																														
6/1/22 14:40				140									60										4						1																													1		
6/1/22 15:10				300																			5					1																														
6/1/22 15:40				2,500								4					1						4						1																														

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
6/1/22 16:10				3,000								6											1																																					
6/1/22 16:40				3,200		1						84											4																																					
6/1/22 17:10				200		1																	3																																			2		
6/1/22 17:40				300		2		1															7												2					1																		1		
6/1/22 18:10				600								2											5							1																												2		
6/1/22 18:40				600		2						1											4												2																							4		
6/1/22 19:10	2			500																			1						1						1																							1		
6/1/22 19:40				2,100			1	1				10											1																																					
6/2/22 7:02				30		2																																																						
6/2/22 7:36				450																																																								
6/2/22 8:10				2,000																																					1																			
6/2/22 8:44				425																																					1																			
6/2/22 9:18				450																																					1																			
6/2/22 9:52	1			2,500																																																								
6/2/22 10:26				200				1																											2																									
6/2/22 11:00				2,200				1															1																																					
6/2/22 11:34		1		1,200																																																								
6/2/22 12:08				2,000																			1						1																															
6/2/22 12:42				450																			1																																					
6/2/22 13:16				450																			3																																					
6/2/22 13:40				485																			1																																					
6/3/22 7:00	2			13																																																								
6/3/22 7:30	6			1,000				1																				2																																
6/3/22 8:00	1			2,000			1																																																					
6/3/22 8:30	3			1,300								1																	1																															
6/3/22 9:00				1,300		1																	1						1																															
6/3/22 9:30	3			500																																																								
6/3/22 10:00	1			850																																																								
6/3/22 10:30	2			350		1																													1																									
6/3/22 11:00				1,200																									3																															
6/3/22 11:30				1,000							1																																																	
6/3/22 12:00	3			400																									1																															
6/3/22 12:30				800				1																																																				
6/3/22 13:00				300																									1																															
6/3/22 13:30				600																																																								
6/6/22 7:00				10																			3																																					
6/6/22 7:30	2			12				1															3												2																									
6/6/22 8:00	5			210																																																								
6/6/22 8:30	1			425																															1																									
6/6/22 9:00				120		1																													1																									
6/6/22 9:30	1			500																									1																															
6/6/22 10:00	1			85								1																																																
6/6/22 10:30				950																																																								
6/6/22 11:00	3			650				1																																																				
6/6/22 11:30	2			125																																																								
6/6/22 12:00	3			700																															1																									
6/6/22 12:30				365		1																																																						
6/6/22 13:00	2			600																									1																															
6/6/22 13:40	2			65																									1						2																									
6/7/22 7:00	1			10		4																	1			1																																		
6/7/22 7:34	5			250																															1																									
6/7/22 8:07	1			2,400																																																							
6/7/22 8:40	8			75		4																																																						
6/7/22 9:14	2			400				1																											1																									
6/7/22 9:48	5			50																															2																									
6/7/22 10:22	3			400								1											1						1						1																									
6/7/22 10:56	1			400		1					1																		1																															
6/7/22 11:30	0			900								2																	1						1																									
6/7/22 12:04	0			600								1																	2																															
6/7/22 12:37	0			800																			1						1						1																									
6/7/22 13:10	4			600								3											3												1																									
6/7/22 13:44	0			500		1																						1																																
6/8/22 6:45	1			8		2		1															1																																					
6/8/22 7:15	3			200		1																													3																								1	
6/8/22 7:45				1,200		1																																																					2	
6/8/22 8:15	2			225		1																																																						2	
6/8/22 8:45	1			1,000		2																	1						2						1																								1	
6/8/22 9:15	1			420		1																	1												1																									
6/8/22 9:45				2,000																			1																																					
6/8/22 10:15	1			1,000								1																	1																															
6/8/22 10:45				1,000																																																								
6/8/22 11:15				925		1																																																						
6/8/22 11:45				2,000		1						2																																																
6/8/22 12:15				400		2																													1																									
6/8/22 12:45				1,500																																																								
6/8/22 13:06				50																															2																									
6/9/22 7:00	1			55		1																	1												1																									
6/9/22 7:30	0			175																			1																																					
6/9/22 8:00	0			2,400																									1																															
6/9/22 8:30	1			65																															1																									
6/9/22 9:00	1			1,100																			1												2																									

Date and Time (Lift Time)	AMERICAN SHAD	BLUEBACK HERRING	ALEWIFE	GIZZARD SHAD	HICKORY SHAD	STRIPED BASS	WHITE PERCH	AMERICAN EEL	RAINBOW TROUT	BROWN TROUT	MUSKELLUNGE	CARP	GOLDEN SHINER	COMELY SHINER	SPOTTAIL SHINER	SPOTFIN SHINER
6/9/22 9:30	0			1,100												
6/9/22 10:00	3			125												
6/9/22 10:30	2			75												
6/9/22 11:00	0			3,000												
6/9/22 11:30	0			55												
6/9/22 12:00	0			3,000												
6/9/22 12:30	1			600		1										
6/9/22 13:00	1			1,400												
6/9/22 13:30	1			450		1										
6/10/22 7:00				35		2										
6/10/22 7:30	3			150		1										
6/10/22 8:00	2			700												
6/10/22 8:30	1			20												
6/10/22 9:00				650												
6/10/22 9:30				25												
6/10/22 10:00	1			100												
6/10/22 10:30				200		1										
6/10/22 11:00				400												
6/10/22 11:30				400												
6/10/22 12:00				100												
6/10/22 12:30				400												
6/10/22 13:00				20												
6/10/22 13:30				300												
6/13/22 7:00	1			5		2	1									
6/13/22 7:30	2			375		1										
6/13/22 8:00	1			1,200												
6/13/22 8:30	1			15												
6/13/22 9:00	2			250												
6/13/22 9:30	3			425		1										
6/13/22 10:00	1			600												
6/13/22 10:30				30												
6/13/22 11:00				1,700												
6/13/22 11:30				50		1										
6/13/22 12:00				500												
6/13/22 12:30				125												
6/13/22 13:00				300												
6/13/22 13:30				1,750		1										
6/14/22 8:38	0			23		2		1								
6/14/22 9:00	1			300												
6/14/22 9:30	0			2,500												
6/14/22 10:00	0			250		1										
6/14/22 10:30	0			1,700		2										
6/14/22 11:00	2			600												
6/14/22 11:30	1			950		2										
6/14/22 12:00	0			1,000												
6/14/22 12:30	0			500												
6/14/22 13:00	0			1,200												
6/14/22 13:30	1			100												
6/15/22 7:00	0			12		4										
6/15/22 7:30	2			42		2										
6/15/22 8:00	0			1,300												
6/15/22 8:30	0			175		2										
6/15/22 9:00	3			600		1										
6/15/22 9:30	0			450		2										
6/15/22 10:00	1			37		1										
6/15/22 10:30	1			500												
6/15/22 11:00	0			800												
6/15/22 11:30	0			150				1								
6/15/22 12:00	0			850												
6/15/22 12:30	1			175												
6/15/22 13:30	0			1,200		1										
Total	**2,283**	**94**	**1**	**1,456,147**	**2**	**77**	**36**	**67**	**2**	**5**	**4**	**229**	**-**	**2,314**	**4**	**-**

Date and Time (Lift Time)	QUILLBACK	WHITE SUCKER	S. REDHORSE	WHITE CATFISH	YELLOW BULLHEAD	BROWN BULLHEAD	CHANNEL CATFISH	ROCK BASS	REDBREAST SUNFISH	GREEN SUNFISH	PUMKINSEED	BLUEGILL	SMALLMOUTH BASS	LARGEMOUTH BASS	WHITE CRAPPIE	BLACK CRAPPIE	TESSELLATED DARTER	YELLOW PERCH	WALLEYE
6/9/22 9:30																			
6/9/22 10:00																			
6/9/22 10:30																			
6/9/22 11:00							1												1
6/9/22 11:30																			2
6/9/22 12:00							1												
6/9/22 12:30																			
6/9/22 13:00																			
6/9/22 13:30													2						
6/10/22 7:00							2												1
6/10/22 7:30							1						1						1
6/10/22 8:00																			
6/10/22 8:30							1												
6/10/22 9:00																			
6/10/22 9:30							5												1
6/10/22 10:00							4												
6/10/22 10:30							1												
6/10/22 11:00							2					1							
6/10/22 11:30							1						2						
6/10/22 12:00							2												
6/10/22 12:30																			
6/10/22 13:00					1		4												
6/10/22 13:30							1												1
6/13/22 7:00							2												
6/13/22 7:30							1												
6/13/22 8:00																			2
6/13/22 8:30							2												1
6/13/22 9:00																			2
6/13/22 9:30																			1
6/13/22 10:00																			
6/13/22 10:30																			
6/13/22 11:00																			
6/13/22 11:30							1												1
6/13/22 12:00																			1
6/13/22 12:30																			
6/13/22 13:00							2												
6/13/22 13:30							1												1
6/14/22 8:38																			
6/14/22 9:00							1					1							
6/14/22 9:30																			
6/14/22 10:00																			2
6/14/22 10:30							1												
6/14/22 11:00																			
6/14/22 11:30							1												
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6/14/22 13:00							1												
6/14/22 13:30																			
6/15/22 7:00							2												
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6/15/22 8:00							1						1						
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6/15/22 9:00							2												1
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6/15/22 11:00																			
6/15/22 11:30																			1
6/15/22 12:00																			
6/15/22 12:30							1						1						
6/15/22 13:30													1						
Total	**72**	**3**	**1,080**	**-**	**6**	**19**	**3,000**	**1**	**-**	**1**	**2**	**11**	**768**	**5**	**-**	**2**	**3**	**2**	**523**

Date and Time (Lift Time)	ATLANTIC NEEDLEFISH	SEA LAMPREY	GREENSIDE DARTER	HYBRID STRIPED BASS	TIGER MUSKIE	ATLANTIC MENHADEN	RAINBOW SMELT	CHAIN PICKEREL	REDFIN PICKEREL	BLACKNOSE DACE	LONGNOSE DACE	CREEK CHUB	NORTHERN HOGSUCKER	MARGINED MADTOM	TADPOLE MADTOM	LOGPERCH	SHIELD DARTER	SPLAKE (Brook x Lake Trout)	BANDED KILIFISH	BROOK TROUT	FLATHEAD CATFISH	LONGNOSE GAR	NORTHERN SNAKEHEAD	BLUE CATFISH	TIGER TROUT
6/9/22 9:30																									
6/9/22 10:00																									
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6/15/22 12:30																									
6/15/22 13:30																									
Total	**-**	**7**	**-**	**-**	**2**	**6**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1**	**-**	**-**	**-**	**-**	**128**	**8**	**-**

Catch of fishes at the Conowingo Dam East Fish Lift, 2022

Number of Days	**74**	
Number of Lifts	**1,599**	
Fishing Time (hours : minutes)	**818:17:00**	
Number of Taxa	**35**	**% of Total**
AMERICAN SHAD	2,283	0.16%
HICKORY SHAD	2	0.00%
BLUEBACK HERRING	94	0.01%
ALEWIFE	1	0.00%
GIZZARD SHAD	1,456,797	99.27%
STRIPED BASS	77	0.01%
AMERICAN EEL	67	0.00%
Common Carp	229	0.02%
White Perch	36	0.00%
Rainbow Trout	2	0.00%
Brown Trout	5	0.00%
Splake*	1	0.00%
Muskellunge	4	0.00%
Tiger Muskellunge*	2	0.00%
Comely Shiner	2,314	0.16%
Spottail Shiner	4	0.00%
Quillback	72	0.00%
White Sucker	3	0.00%
Shorthead Redhorse	1,080	0.07%
White Catfish	1	0.00%
Yellow Bullhead	6	0.00%
Brown Bullhead	19	0.00%
Channel Catfish	2,999	0.20%
Rock Bass	1	0.00%
Green Sunfish	1	0.00%
Pumpkinseed	2	0.00%
Bluegill	11	0.00%
Smallmouth Bass	768	0.05%
Largemouth Bass	5	0.00%
Black Crappie	2	0.00%
Yellow Perch	2	0.00%
Walleye	523	0.04%
Tessellated Darter	3	0.00%
Atlantic Menhaden	6	0.00%
Sea Lamprey	7	0.00%
Northern Snakehead	128	0.01%
Flathead Catfish	0	0.00%
Blue Catfish	8	0.00%
TOTAL	**1,467,565**	

* Denotes hybrid fish

American Shad sex ratio information, Conowingo Dam East Fish Lift, 2022
No operation on March 27 and 28, April 10-11, May 8-10, and June 4, 5, 11, and 12, 2022.

Date	Sample size	Males	Females	Male:Female Ratio	
3/23/2022	0	0	0	N/A	
3/24/2022	0	0	0	N/A	
3/25/2022	0	0	0	N/A	
3/26/2022	0	0	0	N/A	
3/29/2022	0	0	0	N/A	
3/30/2022	0	0	0	N/A	
3/31/2022	0	0	0	N/A	
4/1/2022	0	0	0	N/A	
4/2/2022	0	0	0	N/A	
4/3/2022	0	0	0	N/A	
4/4/2022	0	0	0	N/A	
4/5/2022	0	0	0	N/A	
4/6/2022	0	0	0	N/A	
4/7/2022	0	0	0	N/A	
4/8/2022	0	0	0	N/A	
4/9/2022	0	0	0	N/A	
4/12/2022	0	0	0	N/A	
4/13/2022	0	0	0	N/A	
4/14/2022	0	0	0	N/A	
4/15/2022	1	0	1	N/A	
4/16/2022	1	1	0	1:	0.00
4/17/2022	3	2	1	1:	0.50
4/18/2022	1	0	1	N/A	
4/19/2022	1	1	0	1:	0.00
4/20/2022	0	0	0	N/A	
4/21/2022	2	0	2	N/A	
4/22/2022	0	0	0	N/A	
4/23/2022	0	0	0	N/A	
4/24/2022	0	0	0	N/A	
4/25/2022	4	4	0	1:	0.00
4/26/2022	20	3	17	1:	5.67
4/27/2022	50	29	20	1:	0.69
4/28/2022	1	1	0	1:	0.00
4/29/2022	8	5	3	1:	0.60
4/30/2022	23	7	16	1:	2.29
5/1/2022	37	16	21	1:	1.31
5/2/2022	23	8	15	1:	1.88
5/3/2022	19	6	12	1:	2.00
5/4/2022	122	63	39	1:	0.62
5/5/2021	0	0	0	N/A	
5/6/2021	121	77	45	1:	0.58
5/7/2021	47	23	22	1:	0.96
5/11/2022	0	0	0	N/A	

Date	Sample size	Males	Females	Male:Female Ratio	
5/12/2022	0	0	0	N/A	
5/13/2022	73	48	24	1:	0.50
5/14/2022	53	42	11	1:	0.26
5/15/2022	152	36	78	1:	2.17
5/16/2022	192	65	35	1:	0.54
5/17/2022	53	26	29	1:	1.12
5/18/2022	138	65	42	1:	0.65
5/19/2022	127	53	48	1:	0.91
5/20/2022	150	46	55	1:	1.20
5/21/2022	29	16	13	1:	0.81
5/22/2022	68	32	35	1:	1.09
5/23/2022	2	1	1	1:	1.00
5/24/2022	2	1	1	1:	1.00
5/25/2022	10	4	6	1:	1.50
5/26/2022	13	4	9	1:	2.25
5/27/2022	184	65	40	1:	0.62
5/28/2022	32	15	17	1:	1.13
5/29/2022	40	11	29	1:	2.64
5/30/2022	21	8	13	1:	1.63
5/31/2022	46	16	30	1:	1.88
6/1/2022	102	63	37	1:	0.59
6/2/2022	1	0	0	N/A	
6/3/2022	21	8	13	1:	1.63
6/6/2022	22	8	14	1:	1.75
6/7/2022	30	19	11	1:	0.58
6/8/2022	9	4	5	1:	1.25
6/9/2022	11	7	4	1:	0.57
6/10/2022	7	5	2	1:	0.40
6/13/2022	11	1	10	1:	10.00
6/14/2022	5	0	5	N/A	
6/15/2022	8	3	5	1:	1.67
TOTAL	**2,096**	**918**	**837**	**1:**	**0.91**

Catch and effort of American Shad collected at the Conowingo Dam East Fish Lift during primary collection periods, 1991-2022

Year	Number Days	Number Lifts	Fishing Hours	Total Catch	Catch Per Day	Catch Per Lift	Catch Per Hour
1991	60	1,168	647.2	13,897	232	12	21.5
1992	70	599	454.1	15,386	220	26	33.9
1993	42	848	463.5	8,203	195	10	17.7
1994	55	955	574.8	26,715	486	28	46.5
1995	68	986	706.2	46,062	677	47	65.2
1996	49	599	454.1	26,040	531	43	57.3
1997	64	652	640	90,971	1421	140	142.1
1998	50	460	640	39,904	798	87	62.4
1999	52	610	467	69,712	1341	114	149.3
2000	45	570	367.8	153,546	3412	269	417.5
2001	43	559	359.8	193,574	4502	346	538.0
2002	49	560	440.7	108,001	2204	193	245.1
2003	44	645	416.6	125,135	2844	194	300.4
2004	44	590	390.3	109,360	2485	185	280.2
2005	52	541	434.3	68,926	1326	127	158.7
2006	61	619	429.8	56,899	933	92	132.4
2007	39	479	335.3	25,464	653	53	75.9
2008	51	483	407	19,914	390	41	48.9
2009	57	618	495.6	29,272	514	47	59.1
2010	59	685	526.2	37,757	640	55	71.8
2011	15	259	142.4	20,571	1371	79	144.5
2012	62	1,230	633.7	22,143	357	18	34.9
2013	60	925	575.6	12,733	212	14	22.1
2014	54	988	509	10,425	193	11	20.5
2015	46	674	433	8,341	181	12	19.3
2016	55	860	536	14,276	260	17	26.6
2017	46	849	463	16,265	354	19	35.1
2018	48	714	416	6,992	146	10	16.8
2019	46	788	415	4,787	104	6	11.5
2020*	4	64	34.6	485	121	8	14.0
2021	DID NOT OPERATE DUE TO COVID-19 PANDEMIC						
2022	**74**	**1,599**	**818.2**	**2,283**	**31**	**1**	**2.8**

* Lift operation ceased after 4 days due to invasive species catch

Operations and fish catch at Conowingo Dam East Fish Lift, 1991 - 2022

Year	Number of Days	Total Fish (Millions)	Number of Taxa	American Shad	Hickory Shad	Alewife	Blueback Herring
1991	60	0.651	42	13,897	0	323	13,149
1992	70	2.395	35	15,386	20	285	7,347
1993	42	0.530	29	8,203	0	0	4,574
1994	55	1.063	36	26,715	1	5	248
1995	68	1.796	36	46,062	1	170	4,004
1996	49	0.492	35	26,040	0	3	261
1997	64	0.719	36	90,971	0	63	242,815
1998	50	0.713	33	39,904	0	6	700
1999	52	1.184	31	69,712	0	14	130,625
2000	45	0.494	30	153,546	0	2	14,963
2001	43	0.922	30	193,574	0	7,458	284,921
2002	49	0.657	31	108,001	6	74	2,037
2003	44	0.589	25	125,135	0	21	530
2004	44	0.716	30	109,360	0	89	101
2005	52	0.378	30	68,926	0	0	4
2006	61	0.715	32	56,899	4	0	0
2007	39	0.539	31	25,464	0	429	460
2008	51	0.944	29	19,914	0	4	1
2009	57	0.915	30	29,272	0	160	71
2010	59	0.857	38	37,757	0	1	4
2011	15	0.289	24	20,571	20	2	17
2012	62	1.110	35	22,143	0	27	25
2013	60	1.095	27	12,733	1	0	7
2014	54	1.193	34	10,425	2	111	25
2015	46	0.754	28	8,341	8	10	3
2016	55	0.865	27	14,276	0	0	34
2017	46	0.845	32	16,265	0	6	59
2018	48	1.041	25	6,992	0	58	2
2019	46	0.833	22	4,787	0	0	15
2020*	4	0.049	16	485	0	1	0
2021	DID NOT OPERATE DUE TO COVID-19 PANDEMIC						
2022	**74**	**1.468**	**35**	**2,283**	**2**	**1**	**94**

* Lift operation ceased after 4 days due to invasive species catch

American Shad and Gizzard Shad ratio information, Conowingo Dam
East Fish Lift, 2022
No operation on March 27 and 28, April 10-11, May 8-10, and
June 4, 5, 11, and 12, 2022

Date	AMS	GS	AMS:GS Ratio	
3/23/2022	0	123	N/A	
3/24/2022	0	430	N/A	
3/25/2022	0	752	N/A	
3/26/2022	0	2,120	N/A	
3/29/2022	0	3,701	N/A	
3/30/2022	0	230	N/A	
3/31/2022	0	4,075	N/A	
4/1/2022	0	3	N/A	
4/2/2022	0	19	N/A	
4/3/2022	0	64	N/A	
4/4/2022	0	415	N/A	
4/5/2022	0	766	N/A	
4/6/2022	0	522	N/A	
4/7/2022	0	300	N/A	
4/8/2022	0	4,185	N/A	
4/9/2022	0	540	N/A	
4/12/2022	0	311	N/A	
4/13/2022	0	2,381	N/A	
4/14/2022	0	5,935	N/A	
4/15/2022	1	43,960	1:	43,960
4/16/2022	1	8,480	1:	8,480
4/17/2022	3	52,745	1:	17,582
4/18/2022	1	39,500	1:	39,500
4/19/2022	1	15,867	1:	15,867
4/20/2022	0	14,634	N/A	
4/21/2022	2	10,936	1:	5,468
4/22/2022	0	6,823	N/A	
4/23/2022	0	13,103	N/A	
4/24/2022	0	8,580	N/A	
4/25/2022	4	10,940	1:	2,735
4/26/2022	20	19,890	1:	995
4/27/2022	50	48,710	1:	974
4/28/2022	1	10,553	1:	10,553
4/29/2022	8	20,892	1:	2,612
4/30/2022	23	10,625	1:	462
5/1/2022	37	21,250	1:	574
5/2/2022	23	9,636	1:	419
5/3/2022	19	22,792	1:	1,200
5/4/2022	122	34,932	1:	286
5/5/2021	182	33,600	1:	185
5/6/2021	121	17,450	1:	144
5/7/2022	47	28,500	1:	606

Date	AMS	GS	AMS:GS Ratio	
5/11/2022	0	267	N/A	
5/12/2022	0	6,146	N/A	
5/13/2022	73	63,550	1:	871
5/14/2022	53	82,365	1:	1,554
5/15/2022	152	49,650	1:	327
5/16/2022	192	31,035	1:	162
5/17/2022	58	48,810	1:	842
5/18/2022	138	54,075	1:	392
5/19/2022	127	53,525	1:	421
5/20/2022	150	59,500	1:	397
5/21/2022	29	75,950	1:	2,619
5/22/2022	68	39,370	1:	579
5/23/2022	2	26,600	1:	13,300
5/24/2022	2	54,825	1:	27,413
5/25/2022	10	42,790	1:	4,279
5/26/2022	13	45,350	1:	3,488
5/27/2022	184	20,115	1:	109
5/28/2022	32	16,534	1:	517
5/29/2022	40	15,823	1:	396
5/30/2022	21	16,168	1:	770
5/31/2022	46	13,388	1:	291
6/1/2022	102	21,269	1:	209
6/2/2022	1	12,840	1:	12,840
6/3/2022	21	11,613	1:	553
6/6/2022	22	4,817	1:	219
6/7/2022	30	7,385	1:	246
6/8/2022	9	11,928	1:	1,325
6/9/2022	11	13,600	1:	1,236
6/10/2022	7	3,500	1:	500
6/13/2022	11	7,325	1:	666
6/14/2022	5	9,123	1:	1,825
6/15/2022	8	6,291	1:	786
TOTAL	**2,283**	**1,456,797**	**1: 638**	

APPENDIX F. CONOWINGO WEST AND EAST FISH LIFT TRANSPORTS AND MORTALITIES

American Shad Transport Summary to Canal Lock Boat Ramp for the Conowingo Dam East and West Fish Lift

Date	East Fish Lift Number Transported	West Fish Lift Number Transported	Number of Transport Mortalities	Number Stocked	Total Number of Fish Stocked for Season
4/26/2022	0	1	0	1	1
4/28/2022	32	4	0	36	37
4/29/2022	38	1	0	39	76
4/30/2022	0	25	0	25	101
5/2/2022	26	24	0	50	151
5/3/2022	32	26	0	58	209
5/4/2022	5	24	0	29	238
5/5/2022	96	30	0	126	364
5/6/2022	0	19	0	19	383
5/7/2022	146	2	0	148	531
5/8/2022	36	0	0	36	567
5/13/2022	39	42	0	81	648
5/15/2022	20	139	0	159	807
5/15/2022	73	33	0	106	913
5/16/2022	105	92	0	197	1,110
5/16/2022	49	147	2	194	1,304
5/17/2022	13	76	0	89	1,393
5/18/2022	58	111	1	168	1,561
5/18/2022	0	222	0	222	1,783
5/19/2022	128	11	0	139	1,922
5/19/2022	77	38	0	115	2,037
5/20/2022	88	131	0	219	2,256
5/20/2022	39	68	0	107	2,363
5/21/2022	54	144	0	198	2,561
5/22/2022	55	146	0	201	2,762
5/26/2022	18	85	0	103	2,865
5/27/2022	163	22	2	183	3,048
5/31/2022	56	13	1	68	3,116
6/1/2022	88	0	0	88	3,204
TOTAL	**1,534**	**1,676**	**6**	**3,204**	

American Shad Transport Summary to Columbia Riverfront Park Boat Ramp for the Conowingo Dam

East and West Fish Lift, March 22 - June 15, 2022

Date	East Fish Lift Number Transported	West Fish Lift Number Transported	Number of Transport Mortalities	Number Stocked	Total Number of Fish Stocked for Season
5/1/2022	0	48	0	48	48
5/6/2022	104	36	0	140	188
5/14/2022	24	51	0	75	263
5/17/2022	85	93	0	178	441
5/18/2022	0	171	0	171	612
5/21/2022	7	42	0	49	661
5/24/2022	11	31	0	42	703
5/28/2022	40	10	0	50	753
5/29/2022	41	3	0	44	797
TOTAL	**312**	**485**	**0**	**797**	

Alewife Transport Summary to Canal Lock Boat Ramp for the Conowingo Dam East and West Fish Lift

March 22 - June 15, 2022

Date	East Fish Lift Number Transported	West Fish Lift Number Transported	Number of Transport Mortalities	Number Stocked	Total Number of Fish Stocked for Season
4/26/2022	0	98	0	98	98
4/28/2022	0	186	0	186	284
4/29/2022	0	64	0	64	348
4/30/2022	0	67	0	67	415
5/2/2022	0	3	0	3	418
5/3/2022	0	3	0	3	421
5/4/2022	0	1	0	1	422
5/5/2022	0	13	0	13	435
5/6/2022	0	124	0	124	559
5/7/2022	0	16	0	16	575
5/13/2022	0	6	0	6	581
5/15/2022	0	23	0	23	604
TOTAL	**0**	**604**	**0**	**604**	

Alewife Transport Summary to Columbia Riverfront Park Boat Ramp for the Conowingo Dam East and West

Fish Lift, March 22 - June 15, 2022

Date	East Fish Lift Number Transported	West Fish Lift Number Transported	Number of Transport Mortalities	Number Stocked	Total Number of Fish Stocked for Season
5/1/2022	0	23	0	23	23
5/6/2022	0	14	0	14	37
5/14/2022	0	40	0	40	77
TOTAL	**0**	**77**	**0**	**77**	

Blueback Herring Transport Summary to Canal Lock Boat Ramp for the Conowingo Dam East and West Fish Lift

March 22 - June 15, 2022

Date	East Fish Lift Number Transported	West Fish Lift Number Transported	Number of Transport Mortalities	Number Stocked	Total Number of Fish Stocked for Season
5/15/2022	0	118	0	118	118
5/16/2022	0	3	0	3	121
5/19/2022	0	1	0	1	122
5/20/2022	0	2	0	2	124
5/27/2022	12	0	0	12	136
6/1/2022	1	0	0	1	137
TOTAL	**13**	**124**	**0**	**137**	

Blueback Herring Transport Summary to Columbia Riverfront Park Boat Ramp for the Conowingo Dam East and West Fish Lift, March 22 - June 15, 2022

Date	East Fish Lift Number Transported	West Fish Lift Number Transported	Number of Transport Mortalities	Number Stocked	Total Number of Fish Stocked for Season
5/21/2022	0	2	0	2	2
5/28/2022	26	1	0	27	29
5/29/2022	1	0	0	1	30
TOTALS	**27**	**3**	**0**	**30**	

2022 WFL American Shad and River Herring Holding Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
4/26/2022	1	257	152	M	Alewife
4/28/2022	1	281	247	F	Alewife
	2	279	224	F	Alewife
	3	260	153	M	Alewife
	4	279	194	F	Alewife
	5	274	213	F	Alewife
	6	273	237	F	Alewife
	7	280	245	F	Alewife
	8	300	280	M	Alewife
	9	243	120	F	Alewife
	10	270	159	M	Alewife
	11	254	144	M	Alewife
4/29/2022	1	270	191	F	Alewife
	2	264	190	F	Alewife
5/2/2022	1	490	1,192	F	Am. Shad
	2	420	631	M	Am. Shad
	3	420	659	M	Am. Shad
5/15/2022	1	397	578	M	Am. Shad
5/24/2022	1	450	631	M	Am. Shad
5/27/2022	1	465	991	F	Am. Shad

2022 EFL American Shad and River Herring Holding Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
4/18/2022	1	508	1,289	F	Am. Shad
4/22/2022	1	440	768	M	Am. Shad
5/5/2022	1	441	675	M	Am. Shad
	2	504	1,300	F	Am. Shad
5/6/2022	1	473	869	M	Am. Shad
	2	433	741	M	Am. Shad
	3	381	449	M	Am. Shad
	4	496	1,141	F	Am. Shad
	5	401	543	M	Am. Shad
	6	420	678	M	Am. Shad
	7	474	765	F	Am. Shad
	8	410	630	M	Am. Shad
	9	435	715	M	Am. Shad
	10	413	617	M	Am. Shad
	11	443	868	M	Am. Shad
	12	471	896	M	Am. Shad
5/20/2022	1	499	1,159	F	Am. Shad
	2	539	1,382	F	Am. Shad
5/26/2022	1	476	917	F	Am. Shad
5/31/2022	1	493	1,116	F	Am. Shad
	2	473	1,011	F	Am. Shad
6/1/2011	1	504	1,350	F	Am. Shad
	2	502	1,213	F	Am. Shad
6/7/2022	1	485	1,250	F	Am. Shad

2022 WFL American Shad and River Herring Transport Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
5/16/2022	1	489	1,307	F	American Shad
5/16/2022	2	521	1,323	F	American Shad
5/18/2022	1	489	1,141	F	American Shad
5/27/2022	1	475	970	M	American Shad
	2	466	757	F	American Shad

2022 EFL American Shad and River Herring Transport Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
5/31/2022	1	487	1,015	F	American Shad

2022 WFL American Shad and River Herring Lift Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
4/28/2022	1	280	198	M	Alewife
	2	271	194	F	Alewife
	3	298	257	M	Alewife

2022 EFL American Shad and River Herring Lift Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
NA	NA	NA	NA	NA	NA

2022 American Shad and River Herring Transfer Skid Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex	Species
5/5/2022	1	413	591	M	Am. Shad
5/7/2022	1	461	880	F	Am. Shad
	2	430	735	M	Am. Shad
	3	442	900	F	Am. Shad
	4	436	670	M	Am. Shad
	5	434	675	M	Am. Shad
	6	485	954	M	Am. Shad
	7	463	895	F	Am. Shad
	8	385	490	M	Am. Shad
	9	432	690	M	Am. Shad
	10	471	766	M	Am. Shad
	11	462	850	M	Am. Shad
5/16/2022	1	455	667	M	Am. Shad
	2	465	753	M	Am. Shad
	3	469	835	M	Am. Shad
5/18/2022	1	488	907	M	Am. Shad
	2	443	953	F	Am. Shad
	3	439	693	M	Am. Shad
5/19/2022	1	402	534	M	Am. Shad
	2	415	583	M	Am. Shad
	1	419	505	M	Am. Shad
5/20/2022	1	476	1,104	F	Am. Shad
	1	498	1,007	M	Am. Shad
5/27/2022	1	450	742	M	Am. Shad
	2	484	965	F	Am. Shad
	3	556	1,654	F	Am. Shad
	4	420	574	M	Am. Shad
	5	459	980	F	Am. Shad
5/28/2022	1	458	610	M	Am. Shad
	1	244	124	M	Blueback
	2	235	108	M	Blueback
5/31/2022	1	487	1,015	F	Am. Shad
	2	465	901	F	Am. Shad
6/1/2022	1	408	533	M	Am. Shad
	2	524	1,555	F	Am. Shad
	3	457	737	M	Am. Shad
	4	396	612	M	Am. Shad
	5	439	669	F	Am. Shad
	6	446	771	F	Am. Shad

2022 WFL Whooshh Tube Test American Shad Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex
4/29/2022	1	490	601	M
	2	420	640	M
	3	430	629	M
5/2/2022	1	555	1,605	F
	2	530	1,361	F
	3	450	723	M
	4	510	1,242	F
	5	510	1,521	F
	6	500	1,344	F
5/3/2022	1	574	1,862	F
	2	475	874	M
	3	498	1,089	F
	4	563	1,471	F
	5	495	1,279	F
	6	446	815	M
	7	406	568	M
	8	510	1,261	F
5/4/2022	1	430	707	M
	2	477	902	M
	3	514	1,419	F
	4	464	773	M
	5	497	998	F
5/5/2022	1	447	666	M
	2	448	814	M
	3	449	798	M
	4	470	913	F
	5	430	628	M
	6	470	1,122	F
	7	470	877	M
	8	470	792	M
	9	470	812	M
	10	460	974	F
	11	470	853	M
	12	420	652	M
	13	470	931	F
	15	392	499	M
5/6/2022	1	475	963	F
5/8/2022	1	471	966	F
	2	526	1,413	F
5/17/2022	1	504	1,055	F
	2	490	1,248	F
	3	474	938	M
	4	505	1,158	F
5/18/2022	1	498	1,025	F
	1	512	1,350	F
	2	485	1,170	F
	3	516	1,161	F
	4	498	1,163	F
	5	480	1,124	F
5/19/2022	1	531	1,363	F
	2	512	1,217	F
	3	530	1,350	F
	4	534	1,274	F
5/20/2022	1	517	1,323	F
6/4/2022	1	491	1,024	F
	2	509	1,227	F

Date	Number	Total Length (mm)	Weight (g)	Sex
	3	510	1,287	F
	4	533	1,340	F
	5	500	1,161	F
6/7/2022	1	498	1,225	F
6/8/2022	1	520	1,258	F
	2	505	1,229	F
	3	504	1,228	F
	4	490	1,135	F
6/9/2022	1	512	1,276	F
	2	486	1,093	F
	3	506	1,218	F
6/10/2022	1	515	1,322	F
	2	526	1,316	F

2022 EFL Whooshh Control American Shad Holding Mortality Sheet

Date	Number	Total Length (mm)	Weight (g)	Sex
4/28/2022	1	450	709	M
	2	422	700	F
5/2/2022	1	490	965	M
	2	518	1,394	F
	3	511	1,381	F
5/3/2022	1	490	1,125	F
	2	440	668	M
5/5/2022	1	491	917	M
	2	409	561	M
	3	481	1,001	F
	4	435	726	M
5/6/2022	1	540	1,264	F
	2	470	1,010	F
5/7/2022	1	462	1,021	F
	2	487	963	F
	3	464	933	F
	4	548	1,480	F
5/15/2022	1	494	961	M
	2	474	985	F
	3	462	836	F
6/7/2022	2	499	1,209	F
6/8/2022	1	505	1,381	F

American Shad, Alewife, and Blueback Herring Transport and Stocking Summary to Canal Lock Boat Ramp and Columbia Riverfront Park Boat Ramp for the Conowingo Dam Fish Lifts, March 22 - June 15, 2022.

Date	Transport Number	Stocking Location	American Shad Stocked	Alewife Stocked	Blueback Herring Stocked	Transport Mortalities	Min. Temperature (°F)	Max. Temperature (°F)	Min. Dissolved Oxygen (mg/L)	Max. Dissolved Oxygen (mg/L)
4/26/2022	1	Canal Lock	1	98	-	-	57.6	57.7	14.5	16.8
4/28/2022	2	Canal Lock	36	186	-	-	55.6	56.1	13.9	16.2
4/29/2022	3	Canal Lock	39	64	-	-	56.7	57.0	14.3	20.9
4/30/2022	4	Canal Lock	25	67	-	-	57.4	57.9	10.7	12.4
5/1/2022	5	Columbia	48	23	-	-	57.2	57.4	13.0	15.1
5/2/2022	6	Canal Lock	50	3	-	-	59.2	60.3	10.6	15.1
5/3/2022	7	Canal Lock	58	3	-	-	59.9	60.4	8.8	13.9
5/4/2022	8	Canal Lock	29	1	-	-	60.6	61.2	11.2	14.1
5/5/2022	9	Canal Lock	126	13	-	-	61.7	62.6	7.6	12.6
5/6/2022	10	Canal Lock	19	124	-	-	57.7	62.1	11.3	15.4
5/6/2022	11	Columbia	140	14	-	-	60.4	60.4	9.0	12.2
5/7/2022	12	Canal Lock	148	16	-	-	61.0	61.0	9.6	13.8
5/8/2022	13	Canal Lock	36	-	-	-	N/A	N/A	N/A	N/A
5/13/2022	14	Canal Lock	81	6	-	-	63.7	64.0	7.9	9.9
5/14/2022	15	Columbia	75	40	-	-	64.9	65.1	11.3	13.5
5/15/2022	16	Canal Lock	159	23	118	-	66.2	66.7	9.3	14.8
5/15/2022	17	Canal Lock	106	-	-	-	66.7	67.3	7.4	10.9
5/16/2022	18	Canal Lock	197	-	3	-	66.9	67.5	11.0	16.0
5/16/2022	19	Canal Lock	194	-	-	2 A. Shad	67.5	67.8	4.0	12.8
5/17/2022	20	Canal Lock	89	-	-	-	68.7	69.1	8.9	11.0
5/17/2022	21	Columbia	178	-	-	-	66.4	66.7	9.6	14.8
5/18/2022	22	Canal Lock	168	-	-	1 A. Shad	68.0	68.9	9.1	12.5
5/18/2022	23	Canal Lock	222	-	-	-	68.0	68.2	11.6	15.1
5/18/2022	24	Columbia	171	-	-	-	68.9	69.3	12.0	19.4
5/19/2022	25	Canal Lock	139	-	-	-	68.5	68.7	9.8	12.8
5/19/2022	26	Canal Lock	115	-	1	-	69.8	70.9	7.3	18.0
5/20/2022	27	Canal Lock	219	-	2	-	70.2	70.5	10.6	17.9
5/20/2022	28	Canal Lock	107	-	-	-	71.1	71.6	8.3	20.6
5/21/2022	29	Canal Lock	198	-	-	-	71.2	72.0	14.2	21.1
5/21/2022	30	Columbia	49	-	2	-	72.5	72.9	13.3	14.4
5/22/2022	31	Canal Lock	201	-	-	-	71.8	72.7	11.0	14.9
5/24/2022	32	Columbia	42	-	-	-	72.0	72.1	9.4	13.3
5/26/2022	33	Canal Lock	103	-	-	-	73.0	73.4	8.0	14.4
5/27/2022	34	Canal Lock	183	-	12	2 A. Shad	73.0	73.2	12.7	19.8
5/28/2022	35	Columbia	50	-	27	-	74.5	74.8	12.8	16.3
5/29/2022	36	Columbia	44	-	1	-	74.5	74.8	12.7	14.1
5/31/2022	37	Canal Lock	68	-	-	1 A. Shad	75.0	76.3	9.7	12.5
6/1/2022	38	Canal Lock	88	-	1	-	77.4	78.4	9.7	18.4
TOTALS			**4,001**	**681**	**167**	**6 A. Shad**				

APPENDIX G. CONOWINGO WEST AND EAST FISH LIFT BIOLOGICAL SAMPLING

2022 WFL American Shad Sacrifice Sheet					2022 EFL American Shad Sacrifice Sheet				
Date	Number	Total Length (mm)	Weight (g)	Sex	Date	Number	Total Length (mm)	Weight (g)	Sex
4/30/2022	1	510	1,326	F	4/27/2022	1	474	1,029	F
5/1/2022	1	493	1,118	M	4/30/2022	1	469	895	M
5/3/2022	1	420	625	M	5/1/2022	1	573	1,440	F
5/5/2022	14	410	540	M	5/4/2022	1	437	728	M
5/12/2022	1	411	486	M		2	440	738	M
5/14/2022	1	430	535	M		3	399	557	M
	2	448	744	M	5/5/2022	1	483	902	M
5/15/2022	1	410	619	M		2	473	830	M
	2	436	660	M		3	490	978	M
	3	423	580	M	5/6/2022	1	460	857	M
	4	493	1,013	F		2	530	1,400	F
5/16/2022	1	446	691	M		3	465	798	F
	2	419	548	M	5/7/2022	1	435	643	M
	3	471	807	F	5/13/2022	1	426	592	M
	4	485	954	F	5/14/2022	1	452	584	M
	5	513	1,145	F	5/15/2022	1	463	800	M
	6	405	570	M		2	470	782	F
5/17/2022	1	461	850	F		3	512	1,033	F
	2	496	1,083	F	5/16/2022	1	413	581	M
5/18/2022	1	442	890	F		2	459	775	M
	2	416	463	M		3	438	590	M
	3	477	763	F		4	506	1,157	F
	4	482	1,083	F	5/17/2022	1	384	410	M
	5	467	874	F	5/18/2022	1	395	508	M
	6	407	533	M		2	472	898	M
	7	475	785	M		3	443	591	M
	8	441	650	M	5/19/2022	1	403	554	M
	9	397	467	M		2	515	1,031	F
	10	391	480	M		3	502	977	F
5/19/2022	1	479	994	F	5/20/2022	1	473	913	F
	2	430	591	M		2	499	1,220	F
5/20/2022	1	457	699	M		3	468	911	F
	2	426	571	M	5/22/2022	1	440	754	F
	3	471	949	F		2	440	667	M
	4	394	543	M	5/27/2022	1	493	1,153	F
5/21/2022	1	428	532	M		2	423	577	M
	2	395	531	M		3	472	911	F
	3	418	604	M		4	480	964	M
	4	370	408	M	5/29/2022	1	470	876	M
5/22/2022	1	447	643	M	5/30/2022	1	494	1,162	F
	2	481	725	M	5/31/2022	1	456	699	M
	3	476	785	F	6/1/2022	1	466	755	M
5/25/2022	1	481	801	M		2	420	530	M
5/26/2022	1	395	526	M	6/6/2022	1	473	950	F
5/28/2022	1	499	1,023	F	6/9/2022	1	489	724	F
6/6/2022	1	484	1,030	F					
6/8/2022	1	478	967	F					

2022 WFL Herring Sacrifice Sheet						2022 EFL Herring Sacrifice Sheet					
Date	Number	Total Length (mm)	Weight (g)	Sex	Species	Date	Number	Total Length (mm)	Weight (g)	Sex	Species
4/15/2022	1	267	173	M	Alewife	4/9/2022	1	269	189	M	Alewife
	2	256	135	M	Alewife	5/2/2022	1	290	205	F	Blueback
4/16/2022	1	261	132	M	Alewife	5/6/2022	1	276	158	M	Blueback
	2	270	174	M	Alewife		2	285	181	M	Blueback
	3	268	155	M	Alewife		3	235	108	M	Blueback
	4	262	140	M	Alewife		4	266	154	M	Blueback
	5	267	173	M	Alewife		5	276	166	F	Blueback
	6	280	222	F	Alewife		6	260	135	M	Blueback
	7	227	138	M	Alewife	5/15/2022	1	265	129	M	Blueback
	8	260	146	M	Alewife	5/20/2022	1	268	147	M	Blueback
4/17/2022	1	270	161	M	Alewife		2	257	125	M	Blueback
	2	266	152	M	Alewife		3	261	133	M	Blueback
	3	260	154	M	Alewife		4	233	121	M	Blueback
	4	285	210	F	Alewife		5	259	133	M	Blueback
	5	260	140	M	Alewife		6	250	123	M	Blueback
4/18/2022	1	266	154	M	Alewife		7	263	131	M	Blueback
	2	282	195	M	Alewife		8	263	142	M	Blueback
4/23/2022	1	317	279	F	Alewife		9	230	104	M	Blueback
4/25/2022	1	275	205	F	Alewife		10	262	137	M	Blueback
	2	280	176	F	Alewife		11	257	133	M	Blueback
	3	257	145	M	Alewife		12	262	137	M	Blueback
	4	282	245	F	Alewife		13	260	132	M	Blueback
	5	286	257	F	Alewife		14	265	135	M	Blueback
	6	251	123	M	Alewife		15	264	155	M	Blueback
	7	268	147	M	Alewife		16	254	119	M	Blueback
	8	267	141	M	Alewife		17	250	141	F	Blueback
	9	270	170	M	Alewife		18	245	124	M	Blueback
	10	266	151	M	Alewife	5/22/2022	1	275	190	F	Blueback
	11	283	171	M	Alewife		2	286	186	F	Blueback
	12	280	205	F	Alewife		3	261	158	F	Blueback
	13	255	149	M	Alewife	5/25/2022	1	249	130	F	Blueback
	14	270	200	F	Alewife		2	255	114	M	Blueback
	15	285	239	F	Alewife		3	251	115	M	Blueback
	16	255	133	M	Alewife	5/27/2022	1	263	148	F	Blueback
	17	280	219	F	Alewife		2	240	109	M	Blueback
	18	282	246	F	Alewife		3	246	114	M	Blueback
	19	257	149	M	Alewife		4	268	137	M	Blueback
	20	280	216	F	Alewife		5	263	144	F	Blueback
	21	282	223	F	Alewife		6	234	100	M	Blueback
	22	304	292	F	Alewife		7	242	100	M	Blueback
	23	277	194	F	Alewife		8	253	134	M	Blueback
	24	272	195	F	Alewife		9	244	113	F	Blueback
	25	270	196	F	Alewife		10	270	148	M	Blueback
	26	274	178	M	Alewife		11	273	187	F	Blueback
	27	284	246	F	Alewife		12	276	167	M	Blueback
	28	267	205	F	Alewife		13	236	100	M	Blueback
	29	270	196	F	Alewife		14	237	110	M	Blueback
	30	263	174	M	Alewife		15	237	103	M	Blueback
	31	276	188	F	Alewife		16	265	137	M	Blueback
	32	254	148	M	Alewife		17	255	140	M	Blueback
	33	286	216	F	Alewife		18	239	105	M	Blueback
	34	275	199	F	Alewife	5/28/2022	1	234	110	M	Blueback

2022 WFL Herring Sacrifice Sheet						2022 EFL Herring Sacrifice Sheet					
Date	Number	Total Length (mm)	Weight (g)	Sex	Species	Date	Number	Total Length (mm)	Weight (g)	Sex	Species
4/26/2022	1.00	265.00	159	M	Alewife						
4/27/2022	1.00	249.00	129	M	Alewife						
	2.00	308.00	238	F	Alewife						
	3.00	255.00	149	M	Alewife						
	4.00	260.00	162	F	Alewife						
	5.00	280.00	198	M	Alewife						
	6.00	292.00	214	F	Alewife						
	7.00	268.00	159	F	Alewife						
4/28/2022	1.00	275.00	202	F	Alewife						
	2.00	283.00	226	M	Alewife						
	3.00	275.00	243	F	Alewife						
	4.00	265.00	180	M	Alewife						
4/29/2022	3.00	272.00	216	F	Alewife						
	4.00	270.00	155	M	Alewife						
	5	270	209	F	Alewife						
4/30/2022	1	271	152	M	Alewife						
5/1/2022	1	292	270	F	Alewife						
5/5/2022	1	260	145	M	Alewife						
5/6/2022	1	261	130	F	Alewife						
	2	261	130	M	Alewife						
	3	280	158	M	Alewife						
	4	244	104	M	Alewife						
	5	240	130	M	Alewife						
5/12/2022	1	270	176	M	Alewife						
5/14/2022	1	281	180	F	Alewife						
	2	268	160	F	Alewife						
	1	261	129	F	Blueback						
	2	261	136	M	Blueback						
	3	254	112	M	Blueback						
	4	250	110	M	Blueback						
	5	242	99	M	Blueback						
	6	270	139	M	Blueback						
	7	262	149	M	Blueback						
	8	273	145	M	Blueback						
	9	247	98	M	Blueback						
	10	234	98	M	Blueback						
	11	276	136	M	Blueback						
	12	256	126	M	Blueback						
	13	263	122	M	Blueback						
	14	263	126	M	Blueback						
	15	282	170	M	Blueback						
	16	287	161	M	Blueback						
	17	242	103	M	Blueback						
	18	283	168	M	Blueback						
	19	280	155	M	Blueback						
	20	265	131	M	Blueback						
	21	235	91	M	Blueback						
	22	268	154	M	Blueback						
	23	200	124	M	Blueback						
	24	260	133	M	Blueback						
	25	268	141	M	Blueback						
	26	246	117	M	Blueback						

2022 WFL Herring Sacrifice Sheet						2022 EFL Herring Sacrifice Sheet					
Date	Number	Total Length (mm)	Weight (g)	Sex	Species	Date	Number	Total Length (mm)	Weight (g)	Sex	Species
	27	255	116	M	Blueback						
	28	240	120	M	Blueback						
	29	255	122	M	Blueback						
	30	295	201	F	Blueback						
	31	254	131	F	Blueback						
	32	237	89	M	Blueback						
	33	254	111	M	Blueback						
	34	241	95	M	Blueback						
	35	260	131	M	Blueback						
	36	280	161	F	Blueback						
	37	276	198	F	Blueback						
	38	274	154	M	Blueback						
5/15/2022	1	255	121	M	Blueback						
	2	237	105	M	Blueback						
	3	240	101	M	Blueback						
	4	235	99	M	Blueback						
	5	240	111	M	Blueback						
	6	256	132	M	Blueback						
	7	249	116	M	Blueback						
	8	240	131	F	Blueback						
	9	256	124	M	Blueback						
	10	251	111	M	Blueback						
	11	257	127	M	Blueback						
	12	265	134	M	Blueback						
	13	247	110	M	Blueback						
	14	239	99	M	Blueback						
	15	243	124	F	Blueback						
	16	240	116	M	Blueback						
	17	293	177	F	Blueback						
	18	271	131	M	Blueback						

APPENDIX H. AMERICAN SHAD OUTSIDE TESTING PROTOCOL DATA

Table X: Study and Control fish Outside Study Protocol – Number and %

(DEMO days 5/18 - 5/19 not included in totals, but presented with strikethrough text for reference)

Table X shows the number of instances wherein violations to the study protocol occurred. The study protocol required steps that fall outside of routine processes for transferring American shad from the EFL to the WFL side and into transport trucks. As measurements, tagging, grouping, transporting, holding and documenting those activities are additions to the routine process for American shad, it is not unexcepted that there would be study protocol violations, especially with such a large on-site crew.

Outside Protocol: Protocol specification violations included:

- Fish size too small and/or not aligned with specified blower speed for size
- Extended fish holding times
- Elevated blower speeds
- Insufficient water in WFL receiving tank*
- Netting on WFL receiving tank obstructing fish water re-entry**
- No control fish as comparison group, non-randomized group assignment

Spring 2022 American Shad Study Results				
Table X: Test and Control fish outside Study Protocol – No. and %				
Passage Assignment Date	Study Group	Outside of Protocol Fish Live	Mort	Outside Protocol Survival %
5/4/2022	Control fish	0	0	
5/4/2022	Test fish	9	0	
5/5/2022	Control fish	0	0	
5/5/2022	Test fish	14	0	
5/6/2022	Control fish	0	0	
5/6/2022	Test fish	0	0	
5/7/2022	Control fish	0	0	
5/7/2022	Test fish	1	0	
5/13/2022	Control fish	0	0	
5/13/2022	Test fish	0	0	
5/14/2022	Control fish	7	0	
5/14/2022	Test fish	6	1	
5/15/2022	Control fish	0	0	
5/15/2022	Test fish	0	0	
5/16/2022	Control fish	12	0	
5/16/2022	Test fish	11	3**	
5/17/2022	Control fish	5	0	
5/17/2022	Test fish	4	1	
~~5/18/2022~~	~~Control fish~~	~~nd~~	~~nd~~	
~~5/18/2022~~	~~Test fish~~	~~13~~	~~2*~~	
~~5/19/2022~~	~~Control fish~~	~~nd~~	~~nd~~	
~~5/19/2022~~	~~Test fish~~	~~8~~	~~0~~	
DEMO Days Excluded - no controls, atypical operation process				
Outside Protocol total	Control fish	24	0	100%
Outside Protocol total	Test fish	45	5	89%
Total Protocol		69	5	

Table Y: Study and Control Combined Totals of Table 2.2.2.4.1-2 and Table X. Includes Known Per Protocol and Outside Protocol Fish – Number and %.

(DEMO days 5/18 and 5/19 are included in totals)

Table Y shows the combined data of Per Protocol and Outside the Protocol results, including the Demo Days which had no control group comparable. Looking at the combined data set of American shad (146 test group and 101 control group) the survival rates of each group were remarkably similar, and statistically insignificant (95% test group and 97% control group) even when including all fish outside the prescribed study protocol. The three mortalities on 5/16/22 driving the test group survival rates slightly lower are all attributed to study set up operation errors, fish exiting the Whooshh tube on top of netting spread over the receiving tank. In a non-study set up the fish would exit directly into the transport truck and such an operation oversight would never come into play. The three fish on the Demo Day are attributed to crowd anxiety handler error – in one case putting in the fish before the green light was on indicating system was ready, and the other two, by handler throwing the fish into the chute (rather than placing the fish and letting it slide) so the fish struck the gate prior to it opening. Do not use Table X or Table Y standing alone without context. See Table 2.2.2.4.1-2 for corrected/correlated data set.

Spring 2022 American Shad Study Results

Table Y: Test and Control combined – Number and %

Passage Assignment Date	Study Group	Combined Total Fish Data*** Live	Mort	Combined Total Survival %
5/4/2022	Control fish	14	0	
5/4/2022	Test fish	21	0	
5/5/2022	Control fish	14	2	
5/5/2022	Test fish	14	0	
5/6/2022	Control fish	23	1	
5/6/2022	Test fish	24	0	
5/7/2022	Control fish	7	0	
5/7/2022	Test fish	8	0	
5/13/2022	Control fish	0	0	
5/13/2022	Test fish	0	0	
5/14/2022	Control fish	14	0	
5/14/2022	Test fish	15	1	
5/15/2022	Control fish	0	0	
5/15/2022	Test fish	0	0	
5/16/2022	Control fish	24	0	
5/16/2022	Test fish	25	3**	
5/17/2022	Control fish	5	0	
5/17/2022	Test fish	5	1	
5/18/2022	Control fish	nd	nd	
5/18/2022	Test fish	18	3*	Demo Day
5/19/2022	Control fish	nd	nd	
5/19/2022	Test fish	16	0	Demo Day
DEMO Days Included - but no controls, atypical operation process				
Combined Total	**Control fish**	101	3	**97%**
Combined Total	**Test fish**	146	8	**95%**
Total Protocol		**247**	**11**	

* Insufficient water in WFL receiving tank

** Netting on WFL receiving tank obstructing fish water re-entry

APPENDIX I. CALIBRATION OF FLOWS, CONOWINGO WEST EEL COLLECTION FACILITY, 2022

Calibration of Flows, Conowingo West Eel Collection Facility

	DATE									
	5-May	**12-May**	19-May	26-May	2-Jun	10-Jun	16-Jun	23-Jun	30-Jun	7-Jul
Collection Tank Fill	21	27	25.5	25	11	20	10	9	28	16
Collection Tank Drain	20	25	26.8	26.4	14	17.5	17.5	15	27.5	15
Holding Tank #1 Drain		15.6	33	22	16.8					
Holding Tank #2 Drain	25	15.6	14.4	20.5	17.4					
Holding Tank #3 Drain	25				16.8	38.25	52.5	49.5	38.25	48
Spray Bar	9.3	9	8.25	8.55	8.4	8.55	9.05	6	8.4	8.4
Scent line	1.5	2.5	2.25	2.2	1.6	2	1.55	1.57	2.5	2.25
Backside of Ramp	0.5	0.5	3.55	3.6	4.6	2	9.05	4.43	2	1.25
Top Attraction	8.8	8.5	4.7	4.95	3.8	6.55	0.25	1.57	6.4	7.15
Bottom of Ramp Attraction	70	56.2	74.2	68.9	65	75.75	70	64.5	65.75	63
Total Attraction	**80.3**	**67.2**	**81.15**	**76.05**	**70.4**	**84.3**	**71.8**	**64.5**	**74.65**	**72.4**

Calibration of Flows, Conowingo West Eel Collection Facility

	DATE									
	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	2-Sep	8-Sep	15-Sep
Collection Tank Fill	10.2	8.5	8.7	11	13.2	15.5	13.2	10.5	14.5	10.8
Collection Tank Drain	11.4	9.75	9	12	13.2	15	13.2	11.16	14.5	11.7
Holding Tank #1 Drain										
Holding Tank #2 Drain										
Holding Tank #3 Drain	54	52.5	33	41.25	48.75	41.5	42.75	43.5	63	46.5
Spray Bar	11.4	12	10.5	7.35	6.4	7.8	8.1	8.25	8.25	9.45
Scent line	1.8	1.5	0.9	1.15	1.65	1.9	1.1	1.25	1.5	1.2
Backside of Ramp	3	2.75	1.2	2.15	1.65	1.4	1.1	1.91	1.5	2.1
Top Attraction	8.4	9.25	9.3	5.2	4.75	6.4	7	6.34	6.75	7.35
Bottom of Ramp Attraction	65.4	62.25	42	53.25	61.95	56.25	55.95	54.66	77.5	58.2
Total Attraction	**75.6**	**73**	**52.2**	**59.6**	**81.55**	**64.55**	**64.05**	**62.25**	**85.75**	**66.75**

Calibration of Flows, Conowingo West Eel Collection Facility

	DATE								
	21-Sep	28-Sep*	10-Oct*	12-Oct	19-Oct	26-Oct	1-Nov	9-Nov	16-Nov
Collection Tank Fill	15	9.68	10.2	16.5	15.9	18	15	18	27.5
Collection Tank Drain	14.5	11.2	12	15.5	14.1	18.5	15	18.5	26.5
Holding Tank #1 Drain	17.5	9.9	13	14	12.2	12	18	15	18.5
Holding Tank #2 Drain					23.5	27.75	33	22.5	33.75
Holding Tank #3 Drain	33	16.5	17	28	22.6	35.4	48.7	42.3	47.3
Spray Bar	8.6	8.85	8.7	8.85	8.4	8.7	7.95	8.25	8
Scent line	1.9	1.45	1.55	1.7	1.95	2.15	1.7	1.9	2.1
Backside of Ramp	1.4	2.97	3.35	0.7	0.15	2.2	1.7	2.4	1.1
Top Attraction	7.2	5.88	5.35	8.15	8.25	6.5	6.25	5.85	6.9
Bottom of Ramp Attraction	65	37.6	42	57.5	49.8	58.25	66	56	78.75
Total Attraction	**74.1**	**44.93**	**48.9**	**67.35**	**60**	**66.45**	**73.95**	**63.75**	**87.75**
Temporary Ramp Collection tank fill					15	13.5	104.4	12	10.5
Temporary Ramp Spray bar					7.2	6.8	6.8	6	5.55
Temporary tank scent line					3	2.5	2.1	1.9	3.4
Temporary tank discharge					14	13	11.6	12.5	8.25
Backside of temporary ramp					2	2	3.3	2.4	1.15
Top Attraction					5.2	4.8	3.5	3.6	4.4
Bottom of Temporary Ramp Attraction					36.6	48.4	60.3	54.8	55.55
Total Temporary Ramp Attraction**					**44.8**	**55.7**	**65.9**	**60.3**	**63.35**
Overall Attraction					**104.8**	**122.15**	**139.85**	**124.05**	**151.1**

** Tank flows were reduced to get accurate flow measurement and to calibrate. Flow returned to normal operating condition after calibration was complete*

*** Temporary Ramp total attraction is Temporary ramp spray bar, temporary ramp collection tank fill and Holding tank #3 discharge.*

Collection Tank Temperature (°F)

Day	May	June	July	August	Sept.	Oct.	Nov.
1	54.7	73.0	77.0	82.4	83.1	68.2	58.1
2	55.2	73.0	77.0	83.8	82.9	66.7	57.9
3	55.2	75.2	77.9	84.0	82.9	65.5	58.1
4	57.7	76.5	78.8	84.6	81.3	63.3	59.7
5	58.6	76.3	80.2	84.2	83.1	61.7	60.4
6	57.7	76.5	79.9	84.4	82.6	60.8	61.0
7	58.5	75.6	81.1	84.2	80.6	61.3	61.7
8	58.3	76.6	81.1	84.7	82.2	62.4	63.1
9	54.3	77.0	80.8	84.9	81.9	59.9	61.7
10	54.9	77.2	82.2	85.5	78.6	60.1	61.5
11	55.9	77.4	81.7	85.1	78.1	59.2	61.5
12	57.7	76.5	81.3	86.0	77.4	59.4	61.9
13	59.9	75.0	81.1	84.6	75.9	59.5	59.9
14	61.5	75.2	81.7	84.2	77.2	60.6	58.1
15	62.8	75.6	81.9	83.8	76.5	61.0	53.2
16	64.2	75.2	79.9	83.3	75.9	61.3	52.0
17	64.8	75.9	82.4	82.9	76.1	58.1	48.9
18	64.9	77.0	83.3	82.8	76.6	61.9	48.0
19	66.2	74.1	82.9	82.8	75.0	60.8	47.1
20	57.6	73.2	82.8	82.8	75.7	59.5	45.1
21	67.6	73.4	83.8	82.6	76.6	58.8	
22	68.0	74.1	82.0	82.0	76.5	58.8	
23	72.5	74.1	84.0	81.9	74.8	58.6	
24	69.8	76.3	84.9	82.0	72.5	59.0	
25	70.0	75.6	84.7	82.8	72.3	59.0	
26	70.7	75.7	84.9	82.8	71.6	59.2	
27	70.9	74.8	84.7	83.1	72.3	60.1	
28	70.3	77.7	85.3	83.7	71.6	59.4	
29	70.5	74.5	84.7	83.5	70.9	58.5	
30	71.1	76.8	84.7	82.4	69.8	58.3	
31	70.9		85.5	83.1		57.7	

Dissolved Oxygen at Station 643 (mg/L)

Day	May	June	July	August	Sept.	Oct.	Nov.
1	11.1	8.9	7.0	6.6	6.8	9.6	9.5
2	10.7	8.9	6.3	7.3	6.8	9.8	9.7
3	10.6	8.7	6.7	7.4	7.5	9.7	8.9
4	10.3	8.7	6.6	7.0	7.5	10.5	8.3
5	10.4	8.6	6.5	6.8	7.2	8.4	9.2
6	10.0	8.3	6.7	6.6	7.1	8.9	9.5
7	10.0	7.5	7.1	6.3	6.9	10.3	10.0
8	10.0	6.7	7.1	6.6	6.2	10.4	9.4
9	10.8	6.5	7.0	7.8	6.7	10.6	9.7
10	10.9	8.2	7.4	6.5	7.1	9.8	8.6
11	10.6	8.3	7.5	6.7	7.0	10.2	8.8
12	10.4	8.6	7.5	6.8	7.6	10.8	9.1
13	10.3	8.4	7.3	6.9	8.2	10.6	9.7
14	10.0	7.8	7.4	6.9	8.5	10.5	9.7
15	9.7	8.1	7.1	6.8	8.6	10.3	9.8
16	9.2	8.1	7.2	6.7	8.5	11.0	10.2
17	9.1	7.5	6.9	7.0	7.4	8.9	10.8
18	9.3	7.3	6.9	7.0	8.6	10.2	10.5
19	9.0	7.7	6.8	7.0	7.5	9.9	10.3
20	8.8	8.1	6.9	6.9	8.3	10.4	12.9
21	8.5	7.9	6.5	6.5	8.0	10.5	
22	8.1	7.2	6.3	6.4	7.8	10.8	
23	7.8	6.7	6.3	6.4	7.9	10.8	
24	8.1	7.1	6.3	6.8	8.1	10.8	
25	7.8	7.0	5.9	6.9	7.8	10.6	
26	7.7	7.2	6.0	7.1	8.6	10.0	
27	7.3	6.8	5.8	7.2	8.6	9.9	
28	6.8	7.0	6.8	7.2	8.4	10.1	
29	6.8	8.0	6.4	7.1	8.5	10.1	
30	6.9	5.6	6.5	6.5	9.7	9.9	
31	7.9		6.6	6.5		10.5	

APPENDIX J. 2022 CONOWINGO WEST EEL COLLECTION FACILITY

Number of Juvenile Eel Caught Daily, Conowingo West Eel Collection Facility, 2022

Date	Number of Eels Collected
5/2/2022	1
5/3/2022	7
5/4/2022	18
5/5/2022	42
5/6/2022	79
5/7/2022	649
5/8/2022	755
5/9/2022	3,465
5/10/2022	871
5/11/2022	438
5/12/2022	669
5/13/2022	767
5/14/2022	1,656
5/15/2022	1,742
5/16/2022	1,903
5/17/2022	1,057
5/18/2022	1,669
5/19/2022	926
5/20/2022	2,894
5/21/2022	3,145
5/22/2022	2,997
5/23/2022	1,221
5/24/2022	2,398
5/25/2022	1,772
5/26/2022	2,690
5/27/2022	986
5/28/2022	770
5/29/2022	782
5/30/2022	636
5/31/2022	488
6/1/2022	389
6/2/2022	1,665
6/3/2022	2,113
6/4/2022	3,240
6/5/2022	3,599
6/6/2022	2,325
6/7/2022	859
6/8/2022	875
6/9/2022	593
6/10/2022	222
6/11/2022	143
6/12/2022	140
6/13/2022	225
6/14/2022	168
6/15/2022	89

Number of Juvenile Eel Caught Daily, Conowingo West Eel Collection Facility, 2022

Date	Number of Eels Collected
6/16/2022	163
6/17/2022	91
6/18/2022	83
6/19/2022	163
6/20/2022	200
6/21/2022	252
6/22/2022	232
6/23/2022	338
6/24/2022	349
6/25/2022	298
6/26/2022	203
6/27/2022	126
6/28/2022	129
6/29/2022	30
6/30/2022	22
7/1/2022	20
7/2/2022	25
7/3/2022	91
7/4/2022	122
7/5/2022	163
7/6/2022	507
7/7/2022	2,441
7/8/2022	4,158
7/9/2022	2,592
7/10/2022	2,352
7/11/2022	570
7/12/2022	434
7/13/2022	717
7/14/2022	346
7/15/2022	273
7/16/2022	170
7/17/2022	389
7/18/2022	562
7/19/2022	1,154
7/20/2022	2,480
7/21/2022	2,669
7/22/2022	2,787
7/23/2022	1,180
7/24/2022	1,990
7/25/2022	3,210
7/26/2022	3,942
7/27/2022	2,295
7/28/2022	3,469
7/29/2022	1,273
7/30/2022	1,066

Number of Juvenile Eel Caught Daily, Conowingo West Eel Collection Facility, 2022

Date	Number of Eels Collected
7/31/2022	709
8/1/2022	1,065
8/2/2022	693
8/3/2022	355
8/4/2022	85
8/5/2022	101
8/6/2022	433
8/7/2022	290
8/8/2022	234
8/9/2022	109
8/10/2022	101
8/11/2022	145
8/12/2022	128
8/13/2022	279
8/14/2022	1,033
8/15/2022	196
8/16/2022	61
8/17/2022	201
8/18/2022	55
8/19/2022	89
8/20/2022	133
8/21/2022	33
8/22/2022	18
8/23/2022	39
8/24/2022	309
8/25/2022	815
8/26/2022	2,016
8/27/2022	1,382
8/28/2022	397
8/29/2022	103
8/30/2022	43
8/31/2022	157
9/1/2022	99
9/2/2022	29
9/3/2022	10
9/4/2022	7
9/5/2022	31
9/6/2022	163
9/7/2022	115
9/8/2022	25
9/9/2022	32
9/10/2022	374
9/11/2022	908
9/12/2022	1,018
9/13/2022	1,430

Number of Juvenile Eel Caught Daily, Conowingo West Eel Collection Facility, 2022

Date	Number of Eels Collected
9/14/2022	2,316
9/15/2022	2,127
9/16/2022	2,196
9/17/2022	1,483
9/18/2022	392
9/19/2022	969
9/20/2022	864
9/21/2022	995
9/22/2022	1,095
9/23/2022	2,420
9/24/2022	618
9/25/2022	531
9/26/2022	251
9/27/2022	247
9/28/2022	791
9/29/2022	793
9/30/2022	555
10/1/2022	463
10/2/2022	223
10/3/2022	58
10/4/2022	9
10/5/2022	7
10/6/2022	188
10/7/2022	345
10/8/2022	205
10/9/2022	140
10/10/2022	69
10/11/2022	27
10/12/2022	99
10/13/2022	274
10/14/2022	34
10/15/2022	22
10/16/2022	109
10/17/2022	753
10/18/2022	382
10/19/2022	696
10/20/2022	297
10/21/2022	259
10/22/2022	18
10/23/2022	52
10/24/2022	9
10/25/2022	3
10/26/2022	-
10/27/2022	3
10/28/2022	3

Number of Juvenile Eel Caught Daily, Conowingo West Eel Collection Facility, 2022

Date	Number of Eels Collected
10/29/2022	3
10/30/2022	-
10/31/2022	-
11/1/2022	-
11/2/2022	-
11/3/2022	4
11/4/2022	38
11/5/2022	27
11/6/2022	3
11/7/2022	-
11/8/2022	1
11/9/2022	4
11/10/2022	4
11/11/2022	8
11/12/2022	3
11/13/2022	1
11/14/2022	-
11/15/2022	-
11/16/2022	-
11/17/2022	-
11/18/2022	-
11/19/2022	-
11/20/2022	-

Number of Juvenile Eel Placed in Holding, Conowingo West Eel Collection Facility, 2022

Date	Number Placed in Holding
5/2/2022	1
5/3/2022	7
5/4/2022	18
5/5/2022	42
5/6/2022	-
5/7/2022	649
5/8/2022	755
5/9/2022	3,460
5/10/2022	-
5/11/2022	438
5/12/2022	669
5/13/2022	767
5/14/2022	1,656
5/15/2022	1,742
5/16/2022	-
5/17/2022	1,057
5/18/2022	1,669
5/19/2022	926
5/20/2022	2,894
5/21/2022	3,145
5/22/2022	-
5/23/2022	1,216
5/24/2022	2,398
5/25/2022	1,772
5/26/2022	-
5/27/2022	986
5/28/2022	770
5/29/2022	782
5/30/2022	631
5/31/2022	-
6/1/2022	388
6/2/2022	1,665
6/3/2022	2,112
6/4/2022	3,240
6/5/2022	3,599
6/6/2022	-
6/7/2022	859
6/8/2022	875
6/9/2022	-
6/10/2022	221
6/11/2022	143
6/12/2022	140
6/13/2022	-
6/14/2022	168
6/15/2022	89

Number of Juvenile Eel Placed in Holding, Conowingo West Eel Collection Facility, 2022

6/16/2022	163
6/17/2022	-
6/18/2022	83
6/19/2022	163
6/20/2022	-
6/21/2022	252
6/22/2022	232
6/23/2022	338
6/24/2022	-
6/25/2022	298
6/26/2022	203
6/27/2022	-
6/28/2022	108
6/29/2022	30
6/30/2022	22
7/1/2022	-
7/2/2022	25
7/3/2022	91
7/4/2022	117
7/5/2022	-
7/6/2022	505
7/7/2022	
7/8/2022	
7/9/2022	
7/10/2022	
7/11/2022	
7/12/2022	
7/13/2022	
7/14/2022	
7/15/2022	
7/16/2022	
7/17/2022	
7/18/2022	
7/19/2022	
7/20/2022	
7/21/2022	
7/22/2022	
7/23/2022	
7/24/2022	
7/25/2022	
7/26/2022	
7/27/2022	
7/28/2022	
7/29/2022	
7/30/2022	
7/31/2022	

Number of Juvenile Eel Placed in Holding, Conowingo West Eel Collection Facility, 2022

8/1/2022	
8/2/2022	
8/3/2022	
8/4/2022	
8/5/2022	
8/6/2022	
8/7/2022	
8/8/2022	
8/9/2022	
8/10/2022	
8/11/2022	
8/12/2022	
8/13/2022	
8/14/2022	
8/15/2022	
8/16/2022	
8/17/2022	
8/18/2022	
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8/25/2022	
8/26/2022	
8/27/2022	
8/28/2022	
8/29/2022	
8/30/2022	
8/31/2022	
9/1/2022	
9/2/2022	
9/3/2022	
9/4/2022	
9/5/2022	
9/6/2022	
9/7/2022	
9/8/2022	
9/9/2022	
9/10/2022	
9/11/2022	
9/12/2022	
9/13/2022	
9/14/2022	
9/15/2022	

Number of Juvenile Eel Placed in Holding, Conowingo West Eel Collection Facility, 2022

9/16/2022	
9/17/2022	
9/18/2022	
9/19/2022	
9/20/2022	
9/21/2022	
9/22/2022	
9/23/2022	
9/24/2022	
9/25/2022	
9/26/2022	
9/27/2022	
9/28/2022	
9/29/2022	
9/30/2022	
10/1/2022	
10/2/2022	
10/3/2022	477
10/4/2022	-
10/5/2022	261
10/6/2022	188
10/7/2022	-
10/8/2022	267
10/9/2022	156
10/10/2022	78
10/11/2022	-
10/12/2022	106
10/13/2022	181
10/14/2022	-
10/15/2022	69
10/16/2022	139
10/17/2022	801
10/18/2022	-
10/19/2022	767
10/20/2022	218
10/21/2022	-
10/22/2022	26
10/23/2022	59
10/24/2022	30
10/25/2022	-
10/26/2022	10
10/27/2022	14
10/28/2022	-
10/29/2022	9
10/30/2022	3
10/31/2022	-

Number of Juvenile Eel Placed in Holding, Conowingo West Eel Collection Facility, 2022

11/1/2022	
11/2/2022	11
11/3/2022	9
11/4/2022	39
11/5/2022	29
11/6/2022	9
11/7/2022	3
11/8/2022	-
11/9/2022	6
11/10/2022	5
11/11/2022	8
11/12/2022	29
11/13/2022	9
11/14/2022	1
11/15/2022	-
11/16/2022	-
11/17/2022	-
11/18/2022	-
11/19/2022	-
11/20/2022	-

APPENDIX K. AGENCY COMMENTS AND RESPONSIVENESS SUMMARY ON 2022 DRAFT FOMP ANNUAL REPORT

2022 Draft FOMP Annual Report– Resource Agency Comment Responsiveness Summary

Comment	Response
USFWS, December 16, 2022	
Section 2.1.2. Request that dissolved oxygen data for 2022 be reported for each day (including non-operational days) during the fish passage season after May 1.	Daily average dissolved oxygen data recorded from Station 643 has been included for non-operational days during the fish passage season (after May 1).
Section 2.1.2. Water temperature data is required to be collected daily during the fish passage season per the 2022 FOMP (Section 7.1, bullet 4, footnote 25) and the 2021 FERC License (Table 9, footnote 1 and fishway prescription Section 12.4, bullet 3 under Annual Reporting Requirements). However, temperature data is only provided for fishway operational days. Request to include daily temperature data from Station 643, where available between May 1 through June 15, in addition to data collected at the WFL during fish passage operation.	Daily average water temperature data recorded from Station 643 has been included for non-operational days during the fish passage season (after May 1).
Figures 2.1.2-1 and 2.1.2-2. Add water temperature and dissolved oxygen to the figures for non-operational days to the extent available (per comments on Section 2.1.2.	Daily average dissolved oxygen data and daily average water temperature data recorded from Station 643 has been included for non-operational days during the fish passage season (after May 1).
Figure 2.1.2-2. Please verify the water temperature reading on May 24, 2022.	The daily average water temperature on May 24, 2022, has been corrected to 63.0 °F. The draft report incorrectly provided the daily average air temperature, which was 45.5 °F.

Comment	Response
Section 2.2.2.4.1. An asterisk is present within the first paragraph on pg. 16. Please verify if there should be a corresponding footnote.	The asterisk present within the first paragraph on pg. 16 was inserted in error. Constellation has removed it from the text.
Table 2.2.2.4.1-2. Please specify that the table refers to American Shad.	The title has been revised to specify that the table refers to American Shad.
Appendix F. Please add a unique number to each transport in the tables to make it possible to identify transports that contained fish from both lifts and/or were of mixed species.	Constellation has included an additional table to Appendix F which summarizes transport data by individual transport numbers.
Appendix F. Please add minimum and maximum water temperatures and dissolved oxygen readings for each transport.	Constellation has included an additional table to Appendix F which provides the minimum and maximum water temperatures and dissolved oxygen readings for each transport.
Maryland (MDE working with MDNR), December 16, 2022	
Table 2.2.1.3.1-1. Please provide text in the report that discusses the sacrifices and mortalities noted in the tables.	Constellation has added text discussing the sacrifices and mortalities noted in Table 2.2.1.3.1-1.
Table 2.2.1.3.1-1. Please provide detail regarding the difference between northern snakehead 'collected' and 'sacrificed'.	Constellation added text clarifying that the difference between Northern Snakehead "collected" and "sacrificed" in Table 2.2.1.3.1-1 is due to one escaping (leaping) from the WFL sorting tank prior to the technicians entering the WFL sorting tank.

Comment	Response
Table 2.2.2.3.1-2. Please provide text in the report that discusses the sacrifices and mortalities noted in the tables.	Note, Table 2.2.2.3.1-2 provides a summary of floy-tagged American Shad collected at the EFL, whereas Table 2.2.2.3.1-3 summarizes the EFL counts. Constellation has added text discussing the sacrifices and mortalities noted in Table 2.2.2.3.1-1.
Table 2.2.2.4.1-2. The Table should indicate these were American Shad.	The title has been revised to specify that the table refers to American Shad.

From:	Eyler, Sheila
To:	Kendra Gorski; Kirk Smith; Danucalov, Andrea H:(Constellation Power); Bleistine, Ray; Mike.Cox@ERM.com; David Frazier; Eberts, Ron; "Henning, Aaron"; Morales, Jesus J; Martinek, Michael; McCorkle, Richard; "Miller, Jeremy"; Minkkinen, Steve; "Sadzinski, Robert"; "Seaman, Shawn"; Smith, Fred; lsteffy@srbc.net; "Tryninewski, Joshua"; "Williamson, Scott"; Heather Nelson -MDE-; tony.prochaska@maryland.gov; Brett Coakley -DNR-; David Seaborn -MDE-; don.pugh; Matthew Jargowsky -DNR-; emily.zollweg-horan@dec.ny.gov
Cc:	Joseph Petre
Subject:	EXTERNAL EMAIL -Re: [EXTERNAL] Conowingo Fishway Operations and Maintenance Plan for the 2023 passage season
Date:	Friday, December 16, 2022 10:12:42 AM
Attachments:	image002.png

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Ms. Gosrki,

Thank you for the opportunity to provide comments on the Draft Conowingo FOMP for 2023. The Service submits the following comments and recommended edits for your consideration:

- In the Introduction, it would be helpful to provide a brief bulleted list of items that have changed in this FOMP compared to the previous FOMP.
- Section 4.3.1.1: Although it is assumed, it may be useful to new readers to indicate that all fish not removed for transport or for AIS disposal are returned to the tailrace.
- Section 4.6:
    - Bullet 2 – Daily water temperature and dissolved oxygen (DO, after May 1) data are to be collected daily at the fish lifts and in the tailwater area. Those data were not fully collected/reported in the 2022 FOMP Report. In 2023, daily water temperature collection and reporting should occur for each day (including non-operational days) of the fish passage season. In addition, if water temperatures are collected at Station 643 after May 1, please include those data in the annual report in addition to temperatures collected daily at the WFL. Temperature data from Station 643 should not replace WFL temperature monitoring unless concurrent sampling at both stations can demonstrate that similar data are collected at both locations. In addition, tracking DO concentrations in water flowing from Conowingo Pond into the WFL is critical to ensuring that sufficient DO concentrations are present for fish entering the WFL during the latter (warmer) part of the season. The Service requests collection of DO data to occur daily at the WFL location during the entire fish passage season. Monitoring of DO at the WFL could be discontinued after May 1 if concurrent sampling between the WFL and Station 643 show similar data are being collected at both locations.
    - Last Bullet - Please replace the text to reflect this updated collection protocol for river herring: *River herring will also be sacrificed for biological information. Every 20th river herring of each species (Alewife and Blueback Herring) will be sacrificed with a maximum collection of 50 individuals per species from the project. River herring will be processed similar to American Shad. Additionally, any river herring mortalities resulting from lifting, sorting, handling, or transporting will be retained*

for analysis.

Let me know if you have any questions or would like a meeting to discuss these items further.

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

From: Kendra Gorski <kgorski@gomezandsullivan.com>
Sent: Friday, November 18, 2022 3:45 PM
To: Kirk Smith <ksmith@gomezandsullivan.com>; Danucalov, Andrea H:(Constellation Power) <u000ahd@constellation.com>; Bleistine, Ray <rbleistine@normandeau.com>; Mike.Cox@ERM.com <Mike.Cox@ERM.com>; David Frazier <dfrazier@gomezandsullivan.com>; Eberts, Ron <reberts@pa.gov>; Eyler, Sheila <sheila_eyler@fws.gov>; 'Henning, Aaron' <ahenning@srbc.net>; Morales, Jesus J <jesus_morales@fws.gov>; Martinek, Michael <mmartinek@normandeau.com>; McCorkle, Richard <richard_mccorkle@fws.gov>; 'Miller, Jeremy' <jeremmille@pa.gov>; Minkkinen, Steve <steve_minkkinen@fws.gov>; 'Sadzinski, Robert' <bob.sadzinski@maryland.gov>; 'Seaman, Shawn' <shawn.seaman@maryland.gov>; Smith, Fred <fredp.smith@exeloncorp.com>; lsteffy@srbc.net <lsteffy@srbc.net>; 'Tryninewski, Joshua' <jtryninews@pa.gov>; 'Williamson, Scott' <scwilliams@pa.gov>; Heather Nelson -MDE- <hnelson@maryland.gov>; tony.prochaska@maryland.gov <tony.prochaska@maryland.gov>; Brett Coakley -DNR- <brett.coakley@maryland.gov>; David Seaborn -MDE- <david.seaborn@maryland.gov>; don.pugh <don.pugh@outlook.com>; Matthew Jargowsky -DNR- <matthew.jargowsky@maryland.gov>; emily.zollweg-horan@dec.ny.gov <emily.zollweg-horan@dec.ny.gov>
Cc: Joseph Petre <jpetre@gomezandsullivan.com>
Subject: [EXTERNAL] Conowingo Fishway Operations and Maintenance Plan for the 2023 passage season

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

Hello,

Please see the attached the Constellation Conowingo Fishway Operations and Maintenance Plan for the 2023 passage season.
Conowingo_FOMP_2023.pdf
Constellation is requesting that comments be provided to Andrea Danucalov by December 17, 2022 so that the final report can be filed with FERC.

Thank you,
Kendra

Kendra Gorski
Environmental Scientist
Gomez and Sullivan Engineers, D.P.C.
1961 Wehrle Drive, Suite 12
Williamsville, NY 14221
Direct: 716-402-6811
Office: 716-250-4960
kgorski@gomezandsullivan.com

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To:	Kendra Gorski
Cc:	Kirk Smith; Danucalov, Andrea H:(Constellation Power); Bleistine, Ray; Mike.Cox@ERM.com; David Frazier; Eberts, Ron; Eyler, Sheila; Henning, Aaron; jesus_morales@fws.gov; Martinek, Michael; McCorkle, Richard; Miller, Jeremy; Minkkinen, Steve; Sadzinski, Robert; Seaman, Shawn; Smith, Fred; 'Steffy, Luanne'; Tryninewski, Joshua; Williamson, Scott; Heather Nelson -MDE-; Tony Prochaska -DNR-; Brett Coakley -DNR-; Donald Pugh; Matthew Jargowsky -DNR-; emily.zollweg-horan@dec.ny.gov; Joseph Petre
Subject:	EXTERNAL EMAIL -Re: Draft Constellation 2022 Annual FOMP
Date:	Friday, December 16, 2022 10:29:04 AM
Attachments:	image002.png

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Ms. Gosrki,

Thank you for the opportunity to provide comments on the Draft Constellation 2022 Annual FOMP Report. Maryland (MDE working together with MDNR) has the following comments:

Table 2.2.1.3.1-1

- Please provide text in the report that discusses the sacrifices and mortalities noted in the tables.
- Please provide detail regarding the difference between northern snakehead 'collected' and 'sacrificed'.

Table 2.2.2.3.1-2

- Please provide text in the report that discusses the sacrifices and mortalities noted in the tables.

Table 2.2.2.4.1-2

- The Table should indicate these were American Shad.

On Thu, Nov 17, 2022 at 2:50 PM Kendra Gorski <kgorski@gomezandsullivan.com> wrote:

> Hello,
>
> Please see the attached Constellation Conowingo Fishway Operations and Maintenance Plan

Annual Report Draft for 2022. This report is business confidential.

2022_Conowingo_FOMP_Annual_Report.pdf

As Kirk said on today's EPAG call, this draft report covers the eel season through September 15, 2022, then it will be updated to provide data after 9/15 to end of season.

Constellation is requesting that comments be provided to Andrea Danucalov by December 17, 2022, so that the final report can be filed with FERC by the close of the year. The final report will also include DO data from the collection tank.

Let me know if you have any issues assessing the report.

Thank you,

Kendra

GOMEZ AND SULLIVAN ENGINEERS

Kendra Gorski

Environmental Scientist

Gomez and Sullivan Engineers, D.P.C.

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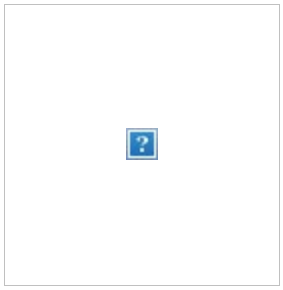

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