



**US Army Corps
of Engineers®**

Pittsburgh District

Planning and Environmental Branch
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Public Notice Date: 22 July 2022
Expiration Date: 21 Aug. 2022

NOTICE OF AVAILABILITY

**DRAFT ENVIRONMENTAL ASSESSMENT
Deviation to Water Control Plan
Youghiogheny River Lake Project
For D/R Hydro Company's Hydropower Tunnel Liner Repair
in Fayette and Somerset Counties, Pennsylvania
July 2022**

The U.S. Army Corps of Engineers, Pittsburgh District (USACE) is evaluating a deviation request to the approved Water Control Plan for the Youghiogheny River Lake Project. Repairs to the hydropower facility at the Youghiogheny River Lake Project require that discharges from the reservoir are temporarily reduced in November 2022, which deviates from the approved Water Control Plan.

The USACE invites submission of comments on the environmental impact of this deviation to the Water Control Plan. The USACE will consider all submissions received before the expiration date of the public comment period. The nature or scope of the proposal may be changed upon consideration of the comments received.

The draft Environmental Assessment is available electronically at:

<http://www.lrp.usace.army.mil/Missions/Planning-Programs-Project-Management/>

Comments can be submitted to the address posted at the top of this notice or to kristi.s.dobra@usace.army.mil. Comments must be received by 21 August 2022 to ensure consideration.

ENVIRONMENTAL ASSESSMENT
Deviation to Water Control Plan
Youghiogheny River Lake Project
For D/R Hydro Company's Hydropower Tunnel Liner Repair
in Fayette and Somerset Counties, Pennsylvania
July 2022

Prepared by: Environmental and Cultural Resources Section, Planning and Environmental Branch, U.S. Army Corps of Engineers (USACE), Pittsburgh District (LRP)

1. Proposed Action: This Environmental Assessment (EA) evaluates the environmental impacts associated with a deviation request to the Water Control Plan (WCP) for the USACE Youghiogheny River Lake Project located in Somerset and Fayette Counties, Pennsylvania. The Proposed Action is a deviation from the approved WCP, which includes the following two specific deviations: 1) a single 6-hour zero flow discharge release window from the Youghiogheny River Lake (Youghiogheny reservoir), and 2) fourteen 8-hour business days of reduced flow discharge from the reservoir (one of these days *includes* the 6-hour zero flow discharge release window). These deviations are necessary to make repairs to the tunnel liner at the Youghiogheny Dam, which is critical to continued safe operation of the hydropower facility. The hydropower facility is operated by D/R Hydro Company (D/R Hydro) under Federal Energy Regulatory Commission (FERC) License #3623-PA. A recent inspection of the hydropower facility revealed a corroded component within the facility that requires repair. In order to complete the repair, a temporary barrier must be installed within the discharge tunnel at the Youghiogheny Dam, which requires that the tunnel be completely depressurized and drained for a 6-hour period. It is during this 6-hour period that there will be zero flow discharged from the Youghiogheny reservoir. The entire repair duration is fourteen business days; work will occur only over an 8-hour work-day each day, with no weekend work. The 6-hour zero flow discharge window will occur on the second day (Day 2 of 14) of construction. On construction Days 1 and 3-14, discharge from the reservoir will be reduced from its normal discharge of approximately 500 cubic feet per second (cfs) to approximately 125cfs during the 8-hour work shift, with up to two 2-hour duration zero flow discharge periods occurring on Days #1 and #14. These shorter duration 2-hour zero-flow periods individually are within the acceptable limits defined within the current approved USACE WCP for the Youghiogheny reservoir, and therefore do not require separate approval via a deviation request to LRD. However, they contribute to the overall flow reduction over the fourteen-day facility repair duration and therefore are also considered here as part of the Proposed Action.

Overnight and on weekends outside of the regular 8-hour work-shift when work is not actively occurring, discharge rates will be increased to normal flows. The reduced flows during the work-shift are necessary to ensure the safety of workers completing the hydropower facility repairs.

A USACE water control manual is the guiding document that specifies how a reservoir will be operated, with the WCP being the most critical section of the manual. The WCP outlines the operational plan for holding or releasing water to meet the reservoir's congressionally mandated purposes. When water is to be managed at a USACE reservoir in a way that deviates from the approved WCP, approval must first be obtained via a deviation request. The deviation request supporting this Proposed Action is currently under review by USACE Great Lakes and Ohio River Division (LRD). This EA was completed to analyze the effects of the Proposed Action and

support an informed decision on the deviation request. Environmental impacts related to the hydropower facility repair, outside of those associated with this deviation request, are considered within the cumulative effects section of this EA.

The Proposed Action will greatly reduce the flow of surface water within the Youghiogheny River for 6 hours over a reach of approximately 1.1 river miles. This reach extends from the dam at Youghiogheny reservoir to the town of Confluence, PA, where the Casselman River meets the Youghiogheny River (see Figure 1). Beyond the confluence with the Casselman River, impacts to flow volume are expected to be minimal due to the surface water flow provided to the channel by the Casselman River. Similarly, during the remainder of the 14-day repair period, flows will be reduced during the 8-hour work-shift of each business day. These reductions will not be as significant as the 6-hour zero flow window, however, because discharges of 125cfs will be maintained during the 8-hour work-shift each day, EXCEPT for portions of Days #1 and #14 when up to two separate 2-hour zero flow discharge windows may be necessary. Following each 8-hour work shift, discharges will be returned to normal until the beginning of the next 8-hour work shift on the following day. See Table 1 for a detailed construction and flow reduction schedule.

2. Authority: The Youghiogheny River Lake Project (reservoir and dam) was authorized by the Flood Control Act (Public Law 75-761) approved 28 June 1938. The responsibility for water control management at this reservoir is prescribed within the Flood Control Act of 1938. The development of recreation areas on flood control reservoir facilities, including the Youghiogheny reservoir, was authorized by Section 4 of the Flood Control Act (Public Law 78-534), approved 22 December 1944, as amended. Other authorized functions of the Youghiogheny River Lake Project include low-flow augmentation for pollution abatement, fish and wildlife enhancement (Public Law 85-624, approved on 12 August 1958), downstream water supply removal, and hydropower. FERC has issued a license for D/R Hydro to operate a hydroelectric plant below the dam. There is a Memorandum of Agreement (MOA) in place between the United States of America and the Borough of Seven Springs (the predecessor of D/R Hydro) which documents the agreement to operate the hydropower facility at the Youghiogheny River Lake Project. This MOA was executed on 28 October 1987.

3. Location of Proposed Action: The Proposed Action will primarily impact a 1.1 mile reach of the Youghiogheny River in Fayette and Somerset Counties, Pennsylvania. This reach extends from the dam at the Youghiogheny reservoir to the confluence of the Casselman River with the Youghiogheny River, located in the town of Confluence, PA (this reach is shown in Figure 1). Minor impacts to flow downstream of the confluence of the Youghiogheny and Casselman Rivers may also occur, but will be less severe due to the increased flow volume provided by the Casselman River and other tributaries (Figure 2 in Section 5 below shows the watershed downstream of the confluence with the Casselman River).

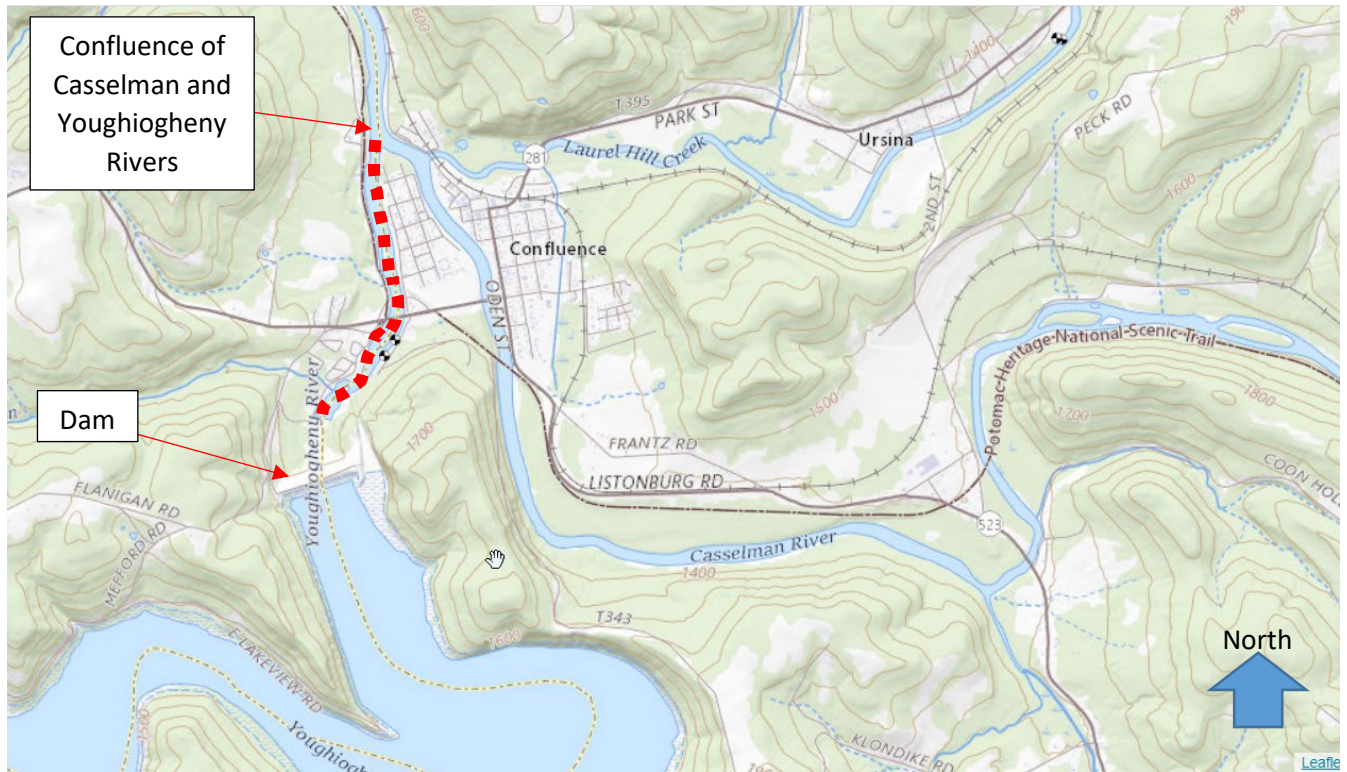


Figure 1: Geographic and hydrologic context for location of Proposed Action. Red dashed line represents the 1.1-mile reach of the Youghiogheny River where flows will be reduced to near-zero during the 6-hour zero-flow release period. This reach will also be most affected by reduced flows during each 8-hour work shift over the 14-day repair duration. Youghiogheny reservoir at bottom left-hand corner. Flow direction along the Youghiogheny River is north.

4. Alternatives: Two different Action Alternatives (in addition to No-Action) were initially evaluated, but ultimately only Action Alternative #1 was carried forward for a full environmental assessment. It is only Action Alternative #1, the Preferred Alternative, that is discussed in detail throughout this EA. Action Alternative #2, which was not carried forward for a full environmental assessment, was determined to be infeasible because the repair plan would have required a significant duration of reduced flow from the reservoir which was determined to be too detrimental to downstream water quality and aquatic habitat. Therefore, Action Alternative #2 was eliminated from consideration early in the evaluation process and environmental impacts related to Action Alternative #2 were not further assessed. However, to demonstrate that multiple alternatives were initially considered, Action Alternative #2 is described briefly in this section for comparison.

a. No Action: The No-Action alternative is for USACE to adhere to the current WCP, and to not request permission to deviate from the WCP. If USACE does not request permission to deviate from the WCP, it would prohibit D/R Hydro from making the necessary repairs to its tunnel liner at the hydropower facility.

b. Action Alternative #1 (Preferred Alternative): This action consists of a deviation request to the WCP for the USACE Youghiogheny reservoir for the purpose of making necessary repairs to the hydropower facility. This action requests a single 6-hour zero flow discharge release window from the Youghiogheny reservoir, which deviates from the approved WCP. It also requests that flows are reduced from the normal discharge of

approximately 500cfs, to 125cfs during each 8-hour work shift over the 14-day repair duration, with the exception of Days #1 and #14 which may also include up to two separate 2-hour zero flow discharge periods each day during the 8-hour work-shift. The necessary repair includes the installation of a temporary barrier inside the discharge tunnel to dewater the worksite. Installation and testing of the temporary tunnel barrier on Day #2 will require a single 6-hour zero flow discharge release from the Youghiogheny reservoir with the tunnel depressurized and drained. Reduced flows during the 8-hour work-shifts are necessary to ensure worker safety during the repairs. The 14-day repair period is scheduled to occur from October 31, 2022, through November 17, 2022 (no weekend work). Although the gates at the dam will be shut during the zero-flow release windows to prevent water from passing downstream, these gates are not water-tight. Approximately 50-100 cubic feet per second (cfs) will still continue to leak through the gates and flow through the Youghiogheny River channel during the 6-hour and 2-hour zero discharge release windows. It is referred to as a “zero-flow” discharge release window throughout this document, but there will still be a small amount of flow (50-100 cfs) moving downstream.

Table1. Proposed repair schedule and change in flows during the 14-day repair period.

Work Day #	Time (approximate)	Flow	Normal Flow Discharge under 'No Action'	Additional Notes on Flow
Day 1- October 31, 2022; Contractor arrives onsite to begin repair work.	8:00am-4:00pm	125 cfs (see 'Additional Notes' column)	500 cfs (approximately)	May require up to two separate 2-hour zero flow discharge windows during the 8-hour work-shift.
Day 2	9:00am-3:00pm	50-100 cfs	500 cfs (approximately)	The 6-hour zero flow discharge window occurs on this day.
Days 3-13	8:00am-4:00pm	125 cfs	500 cfs (approximately)	
Day 14- November 17, 2022; Contractor scheduled to finish repairs and demobilize from site.	8:00am-4:00pm	125 cfs (see 'Additional Notes' column)	500 cfs (approximately)	May require up to two separate 2-hour zero flow discharge windows during the 8-hour work-shift.

Evenings, Days 1-14	4:00pm- 8:00am the following morning	500 cfs	500 cfs (approximately)	Every evening after the work- shift, flow is increased to normal flows.
Weekends	4:00pm Friday- 8:00am Monday	500 cfs	500 cfs (approximately)	Weekend work will not occur; over the weekend flows will be increased to normal flows.

c. Action Alternative #2: This alternative required a deviation from the WCP that consisted of a significant flow reduction over a period of 7-10 days during the month of September (24-hours per day for 7-10 days). This deviation was necessitated by a proposed tunnel liner repair procedure that would require a complete removal and replacement of the corroded component at the hydropower facility (as opposed to a repair/rehabilitation of existing components as in Action Alternative #1). Initial evaluation of this alternative concluded that the flow reductions under this scenario would be too significant to meet downstream water flow requirements. As a result of this initial evaluation, the environmental impacts of Action Alternative #2 were not evaluated further. The environmental impacts noted below in Section 6 were assessed only for the No-Action Alternative, and Action Alternative #1.

5. Environmental Setting: The Youghiogheny River Lake is a flood control reservoir/dam built and operated by the USACE Pittsburgh District which spans the Maryland-Pennsylvania state line. Other project purposes include water quality, water supply, hydropower, and recreation. The release of water from the reservoir to the Youghiogheny River is carefully controlled by the USACE for these purposes in accordance with an approved WCP. A hydropower facility operated by D/R Hydro is located at the outflow of the Youghiogheny reservoir. Beyond this outflow, the Youghiogheny River flows freely northwards towards the town of Confluence, PA, where the Casselman River meets the Youghiogheny River. The confluence of these two rivers, the Casselman and the Youghiogheny, occurs approximately 1.1 river miles downstream of the dam.

The Preferred Alternative would be implemented within the Youghiogheny River channel located in Fayette and Somerset Counties, Pennsylvania. Surface water flows will be considerably reduced within a 1.1 mile reach of the Youghiogheny River channel between the dam and its confluence with the Casselman River during each 8-hour work-shift over the course of the 14-day repair duration. Downstream of this 1.1 mile reach (at the Casselman River confluence), flow volume will also be reduced as a result of the Proposed Action, but not as severely as will occur within the 1.1 mile reach of the Youghiogheny River downstream of the dam due to the contribution of water volume from the Casselman River and other tributaries. The proportion of water volume in the Youghiogheny River contributed by the release of water from the USACE Youghiogheny reservoir relative to the volume contributed by the Casselman River varies greatly throughout the year. The amount of water released from the USACE Youghiogheny reservoir depends on time of year, pool levels within the reservoir, and flow volumes

downstream, which is prescribed within the approved WCP. Generally during normal operations in the month of November (the proposed timing of the Preferred Alternative), lower flows downstream would trigger larger releases from the reservoir, and higher flows downstream means that less water would be released from the reservoir, so as to carefully balance water volumes to meet authorized project purposes.

The Youghiogheny River Lake is surrounded by high, rounded hills with steep slopes, deeply cut by narrow stream valleys that join with the river valley below. The hills rise 400 to 500 feet above the reservoir with typical slopes exceeding 50 percent grade. The Youghiogheny River Lake reservoir is characterized as a clear, oligotrophic, and a relatively cool impoundment, which exhibits summer thermal stratification. By late summer, the reservoir is warmed to considerable depth, despite being relatively deep (summer mean pool depths range between 54.3-121 feet). Due to reservoir stratification, the reservoir supports both cold and warmer water fisheries. The reservoir is generally free of significant municipal and industrial pollution; however, the reservoir and the main stem of the Youghiogheny River downstream of the reservoir are reported by the US Environmental Protection Agency (USEPA) to be impaired water bodies (see Figure 2) for fish consumption related to mercury pollution (USEPA, www.mywaterway.epa.gov).

The Casselman River is also an impaired waterway and is affected by metals pollution related to acid mine drainage. The entire Casselman River watershed has been extensively mined by surface and underground mining methods and industrial mineral operations. The earliest mining in the watershed occurred in six large commercial deep mines on the Pittsburgh coal seam in the Shaw Mines area prior to 1877. Additional deep mining operations on various coal seams were expanded in the watershed in the early 1990's. The mining operations of today are mostly by surface mining methods and exceed more than 100 active sites. The major pollutant in the Casselman River watershed is mine drainage from abandoned surface and underground mines and coal refuse piles. Mine discharges from abandoned underground mines on the Pittsburgh, Brookville and Lower Kittanning coal seams typically have the most significant impact on the water quality in the Casselman River watershed. Most of the 200 mine discharges in the watershed are from abandoned mines.

It is important to note that although the Youghiogheny River and Casselman River are considered impaired by the USEPA, other tributaries downstream that contribute flow to the Youghiogheny River are not impaired (see Figure 2). When flows from the Youghiogheny reservoir are temporarily altered as proposed under the Preferred Alternative, the mainstem of the Youghiogheny River will continue to receive higher quality, albeit smaller volume, water flows from unimpaired tributaries downstream.

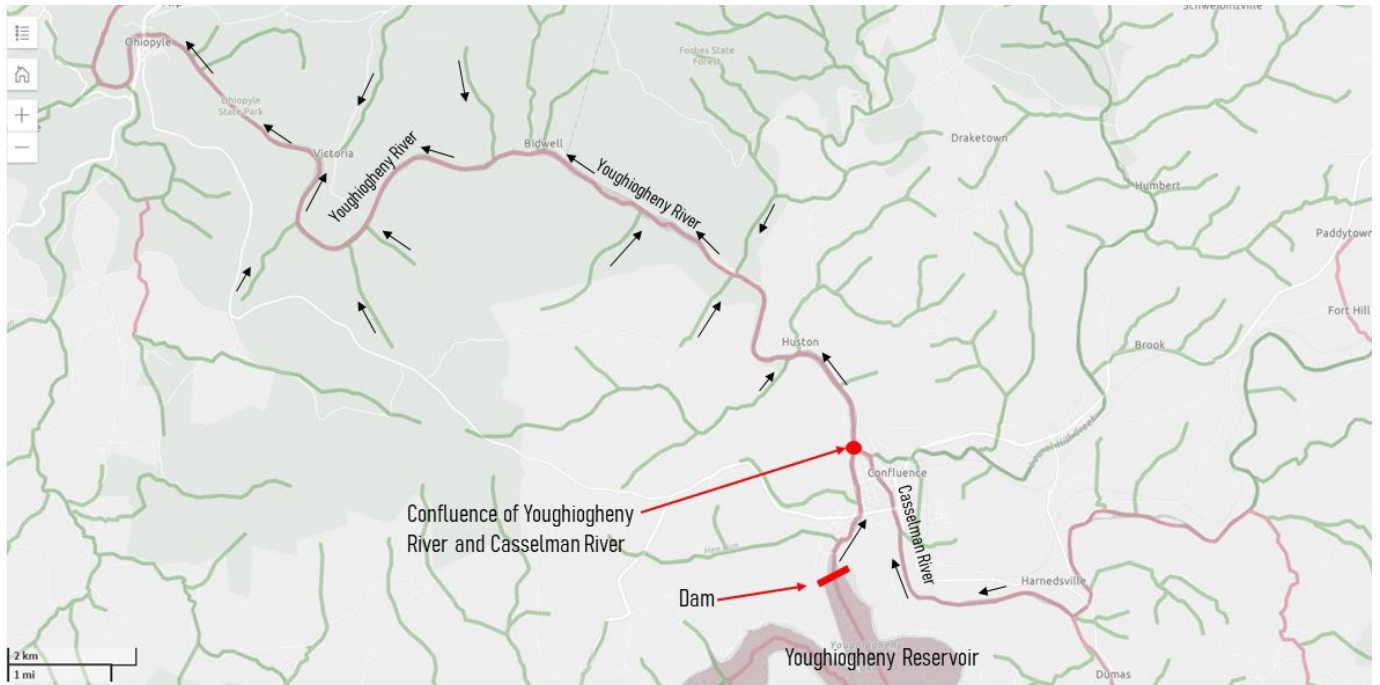


Figure 2. Figure showing location of impaired streams (red shading) and unimpaired streams (green shading), according to the USEPA. Youghiogheny River channel downstream of the confluence with the Casselman River (red dot) may be impacted by temporary reduced flow volume. Youghiogheny reservoir located south of the dam near bottom center of image. Youghiogheny River flows north-northwest from the reservoir. Red shaded (impaired) water bodies include the Youghiogheny River, Youghiogheny reservoir, and the Casselman River. Most other tributaries shown are shaded green, indicating good water quality in these tributaries. Ohioyle State Park is located in the upper left corner of the image. Black arrows represent flow direction of water body. Source of image: www.mywaterway.epa.gov.

6. Environmental Effects of the Alternatives:

Table 1. Anticipated impacts of the Alternatives.

Environmental Parameter	No-Action Alternative	Action Alternative #1/ Preferred Alternative
<i>Land Use and Socio-Economic/ Environmental Justice Conditions</i>	No effect. Implementing the No-Action Alternative would have no effect on land use and would not disproportionately affect underserved or disadvantaged communities.	No effect. The town of Confluence, PA, is a low-income area, with 45% of the population considered 'low-income'. Confluence falls in the 81 st percentile for low-income in the state of PA; it falls within the 75 th percentile for low-income residents in the US. However, the Preferred Alternative will have no impact on the community of Confluence, and will not disproportionately affect underserved or disadvantaged communities. The Preferred Alternative supports maintenance activities that maintain the status quo of the dam and hydropower facility with no effect on land use or socioeconomics of the region.
<i>Vegetation and Wildlife Habitat</i>	No effect. Implementing the No-Action Alternative would have no effect on vegetation or wildlife habitat.	Minor effect. A 6-hour zero-flow discharge release window and reduced flows during the 14-day repair duration will greatly reduce flows within the channel of Youghiogheny River between the dam and the confluence with the Casselman River. Aquatic habitat will be affected during the reduced flows; however, habitat impacts will be temporary, and will return to normal conditions following the repair. It is not expected that the Preferred Alternative will have any lasting/permanent impacts on vegetation and/or wildlife habitat.
<i>Water Quality</i>	No effect. Implementing the No-Action Alternative would have no effect on water quality.	Minor effect. A 6-hour zero-flow discharge window would reduce flows within the 1.1-mile reach of the Youghiogheny River between the dam and the confluence with the Casselman River to approximately 50-100 cfs (resulting from gates not being water-tight). During the rest of the 14-day repair period, flows within this 1.1 mile reach will be reduced to approximately 125cfs during the 8-hour work shift each day, with the exception of Days #1 and #14 which may require up to two 2-hour zero flow discharge windows. Downstream of the confluence with the Casselman River, flows during the 6-hour zero-flow window and the 8-hour work shifts would be contributed primarily from the Casselman River (as opposed to primarily a combination of the Youghiogheny reservoir and the Casselman River). Under normal flow conditions, the Youghiogheny reservoir helps to maintain water quality downstream by releasing adequate volumes of water to augment flows from the Casselman River, which has more degraded water quality due to acid mine drainage. Because flow during these reduced flow periods will be contributed primarily from the Casselman River, water quality downstream may decrease temporarily. However, it is important to note that the smaller tributaries that flow into the Youghiogheny River downstream of the Casselman River confluence are <i>not</i> considered impaired waters and are of good quality (see Figure 2). These tributaries will continue to provide higher quality, albeit lower volume, water flows to the Youghiogheny River during these periods of reduced flows.

Environmental Parameter	No-Action Alternative	Action Alternative #1/ Preferred Alternative
		<p>To mitigate water quality effects downstream, each evening after the 8-hour work-shift the flow discharge from the reservoir will be returned to normal. This will effectively create 16-hour pulses of normal flow conditions in between each 8-hour work shift (with longer pulses on the weekend). Furthermore, because both the Casselman River and the Youghiogheny reservoir are considered impaired (for metals, and mercury, respectively), a temporary disruption in the relative water volume contributions of each water source will not significantly impact water quality downstream. Any minor impacts to water quality downstream will not be permanent, and water quality would improve following the facility repair duration when the flow from the Casselman River is again constantly diluted with water released from the Youghiogheny reservoir.</p> <p>November was selected for the timing of the Preferred Alternative because water quality within the Youghiogheny reservoir is typically good during this time; releasing higher quality water in between each 8-hour work shift will limit the severity of effects to water quality downstream.</p> <p>The Westmoreland County Municipal Authority (WCMA), which relies on the Youghiogheny River to provide potable drinking water to nearby communities, has been notified of the plan to repair the hydropower facility. The WCMA did not indicate any issues with respect to water quality.</p>
<i>Wetlands</i>	No effect. Implementing the No-Action Alternative would have no effect on wetlands.	No effect. The Preferred Alternative will greatly reduce flow within a 1.1-mile reach of the Youghiogheny River, which may temporarily reduce surface water inputs for riparian wetlands along the banks of the river channel. Because the reduced flows are only temporary, it is not expected to alter the hydrology of riparian wetlands or have any impact on wetlands in the riparian zone along the banks of the Youghiogheny River downstream of the reservoir. The timing of the Preferred Alternative in November is beneficial to wetland vegetation/plants in that the cooler temperatures will limit concern for heat stress and severe desiccation.
<i>Floodplains</i>	No effect. Implementing the No-Action Alternative would have no effect on floodplains.	No effect. A temporary decrease in flow discharge from the Youghiogheny reservoir will have no impact on floodplains.
<i>Noise</i>	No effect. Implementing the No-Action Alternative would have no effect on noise levels.	No effect. Reduced flows will have no impact on noise levels. Any noise associated with the D/R Hydro repairs would be temporary.

Environmental Parameter	No-Action Alternative	Action Alternative #1/ Preferred Alternative
<i>Aesthetics</i>	No effect. Implementing the No-Action Alternative would have no effect on aesthetics.	Minor effect. During period of reduced flows, the water level within Youghiogheny River between the dam and its confluence with the Casselman River will drop. Flowing water within the channel will mostly cease during the 6-hour and 2-hour zero flow windows, exposing some areas of the river bottom. During each 8-hour work shift when flows are reduced to 125cfs, water levels will drop considerably within the 1.1 mile reach. This will temporarily change the aesthetics of this reach of the river. However, these effects are temporary, and will return to normal as flows are again being released from the reservoir.
<i>Recreation</i>	No effect. Implementing the No-Action Alternative would have no effect on recreation. .	Minor effect. The Youghiogheny River provides excellent recreational opportunities, such as fishing, swimming, and kayaking. Fishing within the 1.1-mile reach of the Youghiogheny River between the dam and the confluence with the Casselman River will be disrupted during periods of reduced flows. During the 6-hour zero flow window, flows will be very low and it is expected that most fish will have migrated downstream to areas of higher flows. Fish that had not migrated downstream may remain in disconnected shallow pools within the channel temporarily until water flow is restored. This impact to fishing opportunities will be temporary. Kayaking and river rafting recreation within Ohiopyle State Park, located approximately 11 river miles downstream of the dam along the Youghiogheny River, may also be temporarily disrupted due to the reduced flows. However, the Preferred Alternative is scheduled to occur in November when temperatures in Ohiopyle State Park are cold; it is unlikely that many recreators will be rafting or kayaking during this time. Additionally, impacts to recreation caused by reduced flows will be limited by ensuring that facility repairs do not occur on weekends, when the public is more likely to engage in water recreation. To mitigate any impacts to recreation downstream, recreation outfitters/organizations will be notified of the scheduled repair to the hydropower facility so that any necessary modifications to their operations can be made.
<i>Threatened and Endangered Species</i>	No effect. Implementing the No-Action Alternative would have no effect on threatened and endangered species.	No effect. A consultation inquiry was initiated for the Preferred Alternative through the Pennsylvania Natural Diversity Inventory (PNDI) on June 2022 (attached). The PNDI report concluded that the Preferred Alternative would have no effect on threatened or endangered species, and that no further consultation is required (PNDI Receipt #760928).
<i>Historic and Archaeological Resources</i>	No effect. Implementing the No-Action Alternative would have no effect on historic and archaeological resources.	No Historic Properties Affected. The deviation request for reduced flows at Youghiogheny reservoir will have no impact on historic properties or cultural resources. There are no Tribal lands within the area of the Preferred Alternative.

Environmental Parameter	No-Action Alternative	Action Alternative #1/ Preferred Alternative
<i>Traffic</i>	No effect. Implementing the No-Action Alternative would have no effect on traffic.	No effect. The change in flow released from the reservoir will have no impact on traffic in the area.
<i>Public Safety</i>	No effect. Implementing the No-Action Alternative would lead to continued corrosion of the tunnel liner at the hydropower facility, which could potentially lead to safety hazards for operators of the facility and the public.	No effect. The change in flow released from the reservoir will have no effect on public safety. Following each low flow period, flow will be gradually released from the reservoir, and would not be an instantaneous release that would impact the safety of the public or anyone in or near the river channel.
<i>Hazardous Substances & Wastes</i>	No effect. Implementing the No-Action Alternative would have no bearing on hazardous wastes or substances that may be present.	No effect. The Preferred Alternative will not generate hazardous waste and will have no effect on any hazardous substances or wastes that may be present within or in the vicinity of the Youghiogheny River.
<i>Air Quality</i>	Minor effect. If the No-Action Alternative is implemented, then it may not be possible for D/R Hydro to make the necessary repairs to the hydropower facility and the tunnel liner may continue to corrode until the facility is inoperable. This hydropower facility has the capacity to produce up to 12 megawatts of clean, renewable electricity per hour (which can power up to 8,000 homes). If this facility is inoperable, it is possible that the energy provided by the facility may be replaced with non-renewable energy sources which are	No effect. A reduction in flow volume released from the Youghiogheny reservoir will not affect air quality.

Environmental Parameter	No-Action Alternative	Action Alternative #1/ Preferred Alternative
	detrimental to regional air quality.	
<i>Water Quantity & Water Supply</i>	No effect. Implementation of the No-Action Alternative would have no impact on water quantity or supply.	No effect. Although the Preferred Alternative will reduce the flow volume within the Youghiogheny River, it is not expected to be problematic for water supply facilities downstream. The Westmoreland County Municipal Authority (WCMA), which relies on the Youghiogheny River to provide drinking water to nearby communities, has been notified of the plan to repair the hydropower facility. The WCMA did not indicate any issues with respect to water quantity.
<i>Fisheries</i>	No effect. Implementation of the No-Action Alternative would have no impact on fisheries.	<p>Minor effect. The Preferred Alternative may have minor effects on individual fish, but no impact to fish populations or species of special concern. Some small pools of water may remain within the channel during the 6-hour zero-flow window due to topography, but significant volumes of flowing water within the channel will be temporarily suspended during this time. During each 8-hour work shift when flow is reduced to 125cfs, water will continue to flow through the channel but at a considerably reduced rate; these minimal flows should be sufficient to prevent individual fish strandings within the 1.1 mile reach of the Youghiogheny River between the dam and the confluence with the Casselman River.</p> <ul style="list-style-type: none"> • To avoid individual fish stranding and mitigate impacts to fish, USACE will gradually reduce the volume of water released from the reservoir several hours before the 6-hour zero-flow window. This will allow fish within the channel to react to the reduced water flows and swim downstream to the confluence with the Casselman River where flows will remain sufficient for fish habitat. Additionally, USACE staff will be monitoring the Youghiogheny River during each zero-flow window for stranded fish. If fish stranding is noted during a zero flow window, fish will be captured and relocated downstream below the confluence with the Casselman River. • Trout pens are typically present within the stilling basin at the Youghiogheny River Lake, where trout are managed by the PA Fish & Boat Commission in partner with Trout Unlimited. All trout within the pens will have been removed from the pens prior to the initiation of this action, and therefore will not be impacted. • A consultation inquiry was initiated for the Preferred Alternative through the Pennsylvania Natural Diversity Inventory (PNDI) in June 2022 (attached). The PNDI report concluded that the Preferred Alternative would have no effect on sensitive aquatic species, and that no further consultation is required (PNDI Receipt #760928).

Environmental Parameter	No-Action Alternative	Action Alternative #1/ Preferred Alternative
		Furthermore, the Preferred Alternative was reviewed by the Pennsylvania Fish and Boat Commission (PFBC) to assess impacts to state species of special concern, and the PFBC concluded that the Preferred Alternative would have no impact on these species (letter from PFBC attached).

7. Cumulative Effects: Cumulative impacts result from the incremental impacts of an action, when added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Following review of the scale of the Preferred Alternative and the resources considered in Table 1, cumulative effects are expected to be minor.

The repair work is expected to occur during daytime hours, so daily pulses of greater overnight and weekend flows are expected throughout the repair effort. This will minimize downstream impacts. The repair work will also include construction activities and heavy equipment use, which may have minor temporary impacts on noise, traffic, air quality, and aesthetics. Outside of this short-duration 18-day work period (14 working days), the hydropower facility repairs will not alter the flows or operation of the dam/reservoir, and will not have any lasting impacts on water quality.

Overall, cumulative impacts are expected to be minor due to the short duration and mitigative effects of pulsed flows.

8. Coordination: A 30-day public comment period will occur between 22 July 2022 and 21 August 2022, consistent with 33 CFR 230.11. This section will be updated following the conclusion of the public comment period.

9. Principal Environmental Laws and Executive Orders considered, where applicable, in conjunction with NEPA:

Public Laws

- American Indian Religious Freedom Act, 42 U.S.C. § 1996 et seq.
- Archeological and Historic Preservation Act, 16 U.S.C. § 469 et seq.
- Archeological Resources Protection Act, 16 U.S.C. § 470aa-11, et seq.
- Bald and Golden Eagle Protection Act, 16 U.S.C. § 668, et seq.
- Clean Water Act, 33 U.S.C § 1251 et seq.
- Clean Air Act, as amended, 42 U.S.C. 1857h-7, et seq.
- Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601-9675.
- Endangered Species Act, 16 U.S.C. § 1531, et seq.
- Farmland Protection Policy Act, 7 U.S.C. § 4201, et seq.
- Fish and Wildlife Conservation Act, 16 U.S.C § 2901-2911, et seq.
- Fish and Wildlife Coordination Act, 16 U.S.C § 661, et seq.
- Historic Sites Act, 16 U.S.C § 461-467, et seq.
- National Environmental Policy Act, 42 U.S.C § 4321, et seq.

National Historic Preservation Act, 54 U.S.C § 300101 et seq.
Native American Graves Protection and Repatriation Act, 25 U.S.C § 3001, et seq.
Noise Control Act of 1972, 42 U.S.C § 4901-4918.
Resource Conservation and Recovery Act, 42 U.S.C § 6901, et seq.
Rivers and Harbors Act 33, U.S.C § 401, et seq.
Safe Drinking Water Act 42 U.S.C § 300, et seq.
Toxic Substances Control Act, 15 U.S.C § 2601-2671.
Wild and Scenic Rivers Act, 16 U.S.C § 1271, et seq.

Executive Orders

11514 Protection and Enhancement of Environmental Quality.
11593 Protection and Enhancement of the Cultural Environment.
11988 Floodplain Management.
11990 Protection of Wetlands.
12088 Federal Compliance with Pollution Control Standards.
12114 Environmental Effects Abroad of Major Federal Actions.
12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.

Regulations

Advisory Council on Historic Properties, Protection of Historic and Cultural Properties (36 CFR Part 800 et seq.).
Council on Environmental Quality, Regulation for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508).
U.S. Army Corps of Engineers, ER 200-2-2, Procedures for Implementing NEPA (33 CFR 230).
U.S. Army Corps of Engineers, EC 1165-2-216, Water Resources Policies and Authorities, Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects, Pursuant to 33 U.S.C. § 408.
U.S. Department of Agriculture, Regulations for Implementing the Farmland Protection Policy Act (7 CFR 658).
U.S. Environmental Protection Agency, Clean Air Act Implementing Regulations (40 CFR Part 50, et seq.).
U.S. Environmental Protection Agency, Criteria and Standards for the National Pollutant Discharge Elimination System (40 CFR Part 125).

10. Summary/Conclusion: Based on the analysis above, the Preferred Alternative is not a major Federal action that will significantly affect the quality of the human or natural environment, and therefore does not require the preparation of an environmental impact statement.

1. PROJECT INFORMATION

Project Name: **Hydropower Facility Shutdown for Repairs**

Date of Review: **6/1/2022 02:52:34 PM**

Project Category: **Energy Storage, Production, and Transfer, Energy Production (generation), Dam -- maintenance, modification, or removal**

Project Area: **178.10 acres**

County(s): **Fayette; Somerset**

Township/Municipality(s): **ADDISON TOWNSHIP; CONFLUENCE; HENRY CLAY TOWNSHIP**

ZIP Code:

Quadrangle Name(s): **CONFLUENCE**

Watersheds HUC 8: **Youghioghny**

Watersheds HUC 12: **Casselman River-Youghioghny River; Drake Run-Youghioghny River; Youghioghny River Lake**

Decimal Degrees: **39.809000, -79.365632**

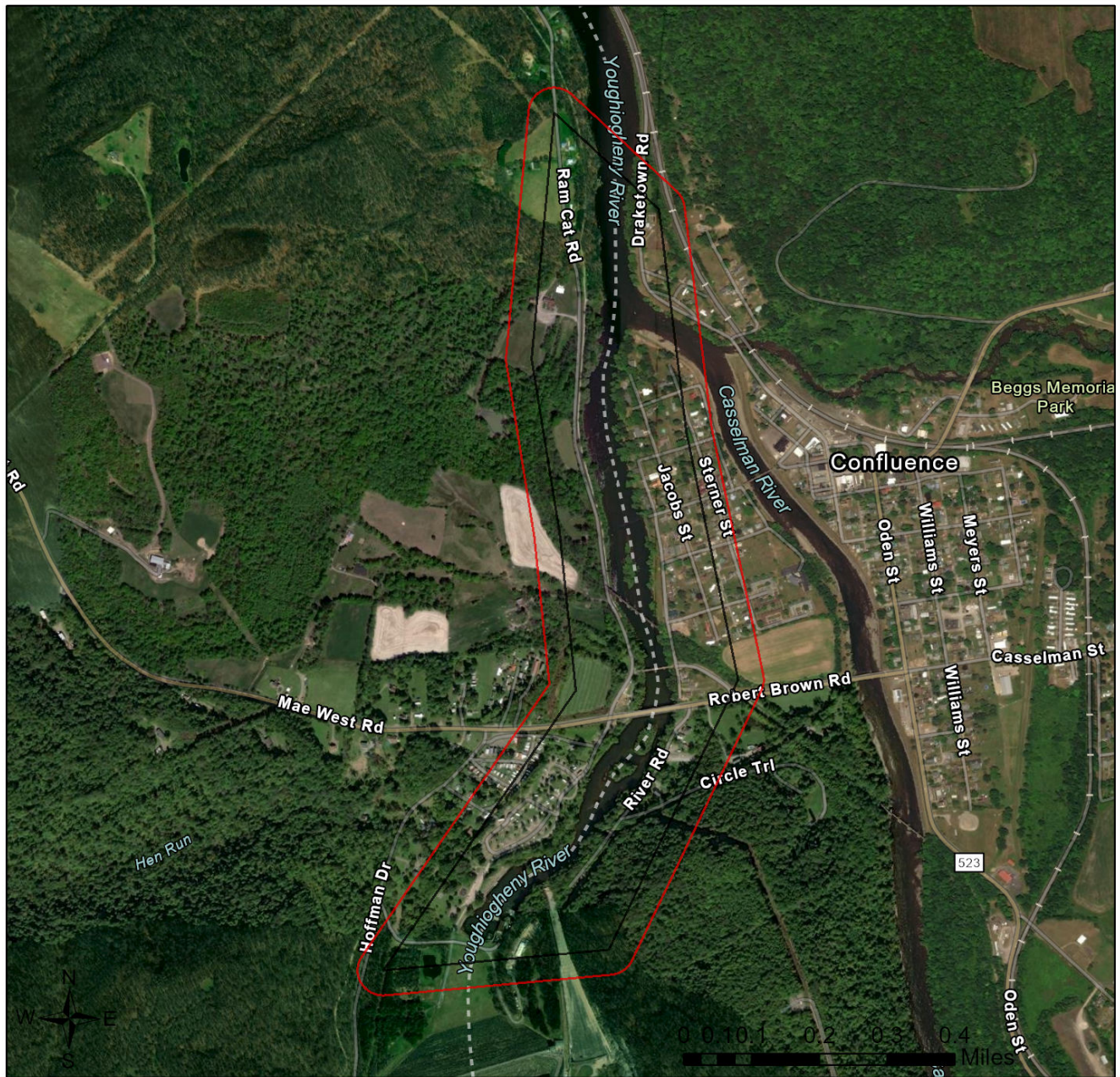
Degrees Minutes Seconds: **39° 48' 32.4009" N, 79° 21' 56.2768" W**



2. SEARCH RESULTS

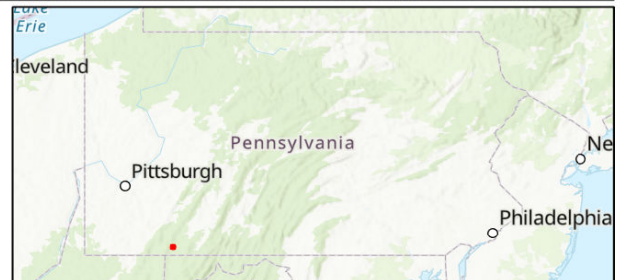
Agency	Results	Response
PA Game Commission	No Known Impact	No Further Review Required
PA Department of Conservation and Natural Resources	Conservation Measure	No Further Review Required, See Agency Comments
PA Fish and Boat Commission	No Known Impact	No Further Review Required
U.S. Fish and Wildlife Service	No Known Impact	No Further Review Required

Pennsylvania Natural Diversity Inventory (PNDI) records indicate that while threatened and endangered and/or special concern species and resources are in the project vicinity and that recommended Conservation Measures should be implemented in their entirety to avoid and minimize impacts to these species, no further coordination is required with the jurisdictional agencies. If a DEP permit is required for this project, DEP has the discretion to incorporate one or more Conservation Measures into its permit. This response does not reflect potential agency concerns regarding potential impacts to other ecological resources, such as wetlands.

Hydropower Facility Shutdown for Repairs

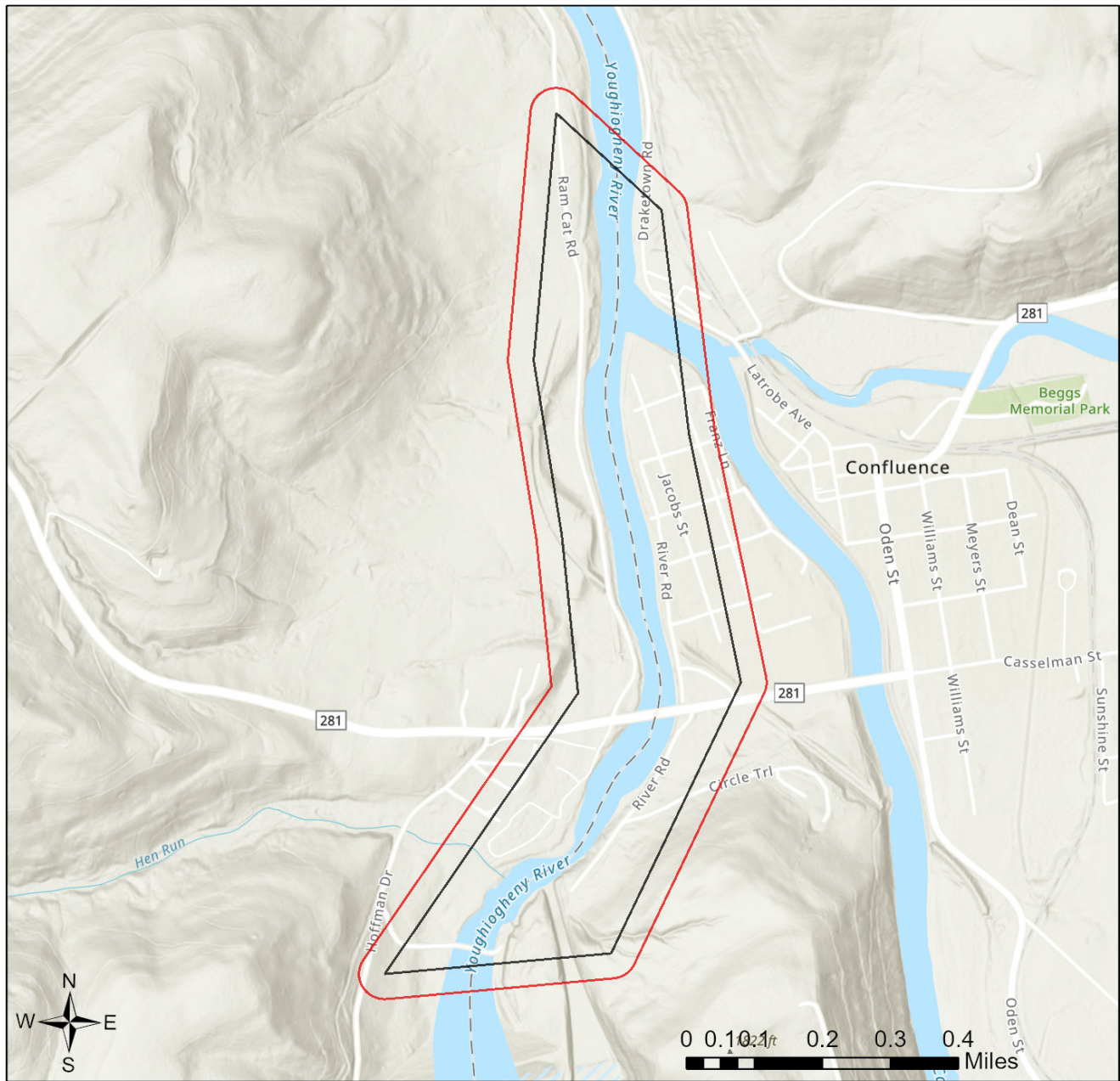




-  Buffered Project Boundary
-  Project Boundary

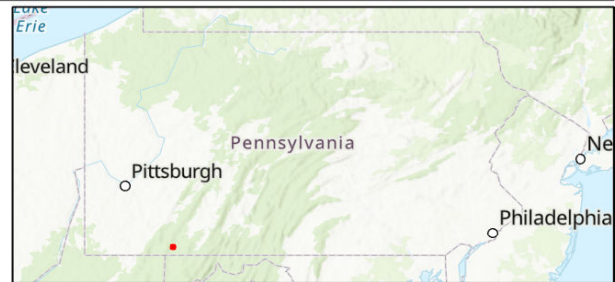


Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Hydropower Facility Shutdown for Repairs



-  Buffered Project Boundary
-  Project Boundary



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

RESPONSE TO QUESTION(S) ASKED

Q1: Will any and all on-land (non-aquatic) disturbance occur in or on an existing building, parking lot, driveway, road, road shoulder, street, runway, paved area, railroad bed, maintained (periodically mown) lawn, crop agriculture field or maintained orchard?

Your answer is: Yes

3. AGENCY COMMENTS

Regardless of whether a DEP permit is necessary for this proposed project, any potential impacts to threatened and endangered species and/or special concern species and resources must be resolved with the appropriate jurisdictional agency. In some cases, a permit or authorization from the jurisdictional agency may be needed if adverse impacts to these species and habitats cannot be avoided.

These agency determinations and responses are **valid for two years** (from the date of the review), and are based on the project information that was provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the following change: 1) project location, 2) project size or configuration, 3) project type, or 4) responses to the questions that were asked during the online review, the results of this review are not valid, and the review must be searched again via the PNDI Environmental Review Tool and resubmitted to the jurisdictional agencies. The PNDI tool is a primary screening tool, and a desktop review may reveal more or fewer impacts than what is listed on this PNDI receipt. The jurisdictional agencies **strongly advise against** conducting surveys for the species listed on the receipt prior to consultation with the agencies.

PA Game Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

PA Department of Conservation and Natural Resources

RESPONSE:

Conservation Measure: Please avoid the introduction of invasive species in order to protect the integrity of nearby plant species of special concern. Voluntary cleaning of equipment/vehicles, using clean fill and mulch, and avoiding planting invasive species (<http://www.dcnr.pa.gov/Conservation/WildPlants/InvasivePlants/Pages/default.aspx>) will help to conserve sensitive plant habitats.

DCNR Species: (Note: The Pennsylvania Conservation Explorer tool is a primary screening tool, and a desktop review may reveal more or fewer species than what is listed below. After desktop review, if a botanical survey is required by DCNR, we recommend the DCNR Botanical Survey Protocols, available here:

<https://conservationexplorer.dcnr.pa.gov/content/survey-protocols>)

Scientific Name	Common Name	Current Status	Proposed Status	Survey Window
Vitis rupestris	Sand Grape	Endangered	Endangered	Flower May; fruits August - November

PA Fish and Boat Commission

RESPONSE:

No Impact is anticipated to threatened and endangered species and/or special concern species and resources.

U.S. Fish and Wildlife Service

RESPONSE:

No impacts to **federally** listed or proposed species are anticipated. Therefore, no further consultation/coordination under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq. is required. Because no take of federally listed species is anticipated, none is authorized. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

* Special Concern Species or Resource - Plant or animal species classified as rare, tentatively undetermined or candidate as well as other taxa of conservation concern, significant natural communities, special concern populations (plants or animals) and unique geologic features.

** Sensitive Species - Species identified by the jurisdictional agency as collectible, having economic value, or being susceptible to decline as a result of visitation.

4. DEP INFORMATION

The Pa Department of Environmental Protection (DEP) requires that a signed copy of this receipt, along with any required documentation from jurisdictional agencies concerning resolution of potential impacts, be submitted with applications for permits requiring PNDI review. Two review options are available to permit applicants for handling PNDI coordination in conjunction with DEP's permit review process involving either T&E Species or species of special concern. Under sequential review, the permit applicant performs a PNDI screening and completes all coordination with the appropriate jurisdictional agencies prior to submitting the permit application. The applicant will include with its application, both a PNDI receipt and/or a clearance letter from the jurisdictional agency if the PNDI Receipt shows a Potential Impact to a species or the applicant chooses to obtain letters directly from the jurisdictional agencies. Under concurrent review, DEP, where feasible, will allow technical review of the permit to occur concurrently with the T&E species consultation with the jurisdictional agency. The applicant must still supply a copy of the PNDI Receipt with its permit application. The PNDI Receipt should also be submitted to the appropriate agency according to directions on the PNDI Receipt. The applicant and the jurisdictional agency will work together to resolve the potential impact(s). See the DEP PNDI policy at <https://conservationexplorer.dcnr.pa.gov/content/resources>.



5. ADDITIONAL INFORMATION

The PNDI environmental review website is a preliminary screening tool. There are often delays in updating species status classifications. Because the proposed status represents the best available information regarding the conservation status of the species, state jurisdictional agency staff give the proposed statuses at least the same consideration as the current legal status. If surveys or further information reveal that a threatened and endangered and/or special concern species and resources exist in your project area, contact the appropriate jurisdictional agency/agencies immediately to identify and resolve any impacts.

For a list of species known to occur in the county where your project is located, please see the species lists by county found on the PA Natural Heritage Program (PNHP) home page (www.naturalheritage.state.pa.us). Also note that the PNDI Environmental Review Tool only contains information about species occurrences that have actually been reported to the PNHP.

6. AGENCY CONTACT INFORMATION

PA Department of Conservation and Natural Resources

Bureau of Forestry, Ecological Services Section
400 Market Street, PO Box 8552
Harrisburg, PA 17105-8552
Email: RA-HeritageReview@pa.gov

PA Fish and Boat Commission

Division of Environmental Services
595 E. Rolling Ridge Dr., Bellefonte, PA 16823
Email: RA-FBPACENOTIFY@pa.gov

U.S. Fish and Wildlife Service

Pennsylvania Field Office
Endangered Species Section
110 Radnor Rd; Suite 101
State College, PA 16801
Email: IR1_ESPenn@fws.gov
NO Faxes Please

PA Game Commission

Bureau of Wildlife Management
Division of Environmental Review
2001 Elmerton Avenue, Harrisburg, PA 17110-9797
Email: RA-PGC_PNDI@pa.gov
NO Faxes Please

7. PROJECT CONTACT INFORMATION

Name: _____
Company/Business Name: _____
Address: _____
City, State, Zip: _____
Phone:(_____) _____ Fax:(_____) _____
Email: _____

8. CERTIFICATION

I certify that ALL of the project information contained in this receipt (including project location, project size/configuration, project type, answers to questions) is true, accurate and complete. In addition, if the project type, location, size or configuration changes, or if the answers to any questions that were asked during this online review change, I agree to re-do the online environmental review.

applicant/project proponent signature

date



Pennsylvania Fish & Boat Commission

Division of Environmental Services
Natural Diversity Section
595 E Rolling Ridge Dr.
Bellefonte, PA 16823
814-359-5237

June 14, 2022

IN REPLY REFER TO
SIR# 56252

US Army Corps of Engineers
Kristi Dobra
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

**RE: Species Impact Review (SIR) – Rare, Candidate, Threatened and Endangered Species
PNDI Search No. 760928_1
Hydropower Facility Shutdown for Repairs
FAYETTE County: Henry Clay Township - SOMERSET County: Addison Township,
Confluence Borough, Lower Turkeyfoot Township**

Dear Kristi Dobra:

This responds to your inquiry about a Pennsylvania Natural Diversity Inventory (PNDI) Internet Database search “potential conflict” or a threatened and endangered species impact review. These projects are screened for potential conflicts with rare, candidate, threatened or endangered species under Pennsylvania Fish & Boat Commission jurisdiction (fish, reptiles, amphibians, aquatic invertebrates only) using the Pennsylvania Natural Diversity Inventory (PNDI) database and our own files. These species of special concern are listed under the Endangered Species Act of 1973, the Wild Resource Conservation Act, and the Pennsylvania Fish & Boat Code (Chapter 75), or the Wildlife Code.

An element occurrence of a rare, candidate, threatened, or endangered species under our jurisdiction is known from the vicinity of the proposed project. However, given the nature of the proposed project, the immediate location, or the current status of the nearby element occurrence(s), no adverse impacts are expected to the species of special concern.

This response represents the most up-to-date summary of the PNDI data and our files and is valid for two (2) years from the date of this letter. An absence of recorded species information does not necessarily imply species absence. Our data files and the PNDI system are continuously being updated with species occurrence information. Should project plans change or additional information on listed or proposed species become available, this determination may be reconsidered, and consultation shall be re-initiated.

Our Mission:

www.fish.state.pa.us

To protect, conserve and enhance the Commonwealth's aquatic resources and provide fishing and boating opportunities.

If you have any questions regarding this review, please contact Josh Brown at 814-359-5129 and refer to the SIR # 56252. Thank you for your cooperation and attention to this important matter of species conservation and habitat protection.

Sincerely,

A handwritten signature in black ink that reads "Christopher A. Urban". The signature is written in a cursive style with a large, prominent initial "C".

Christopher A. Urban, Chief
Natural Diversity Section

CAU/JRB/dn