

## ENVIRONMENTAL ASSESSMENT

### Section 408 Request to Alter the Brookville Local Protection Project for State Route 3033 Bridge Replacement in Jefferson County, PA May 16, 2018

**Prepared By:** Environmental and Cultural Resources Section  
Planning and Environmental Branch  
U.S. Army Corps of Engineers Pittsburgh District

**1. Name of Requestor:** Pennsylvania Department of Transportation Engineering District 10-0 (PennDOT)

**2. Authority:** Proposed alterations to U.S. Army Corps of Engineers (USACE) federally-authorized civil works projects require USACE permission. USACE authority to grant permission for temporary or permanent alterations is contained in Section 14 of the Rivers and Harbors Act of 1899 (Taking possession of, use of, or injury to harbor or river improvements), which states: *"It shall not be lawful for any person or persons to take possession of or make use of for any purpose, or build upon, alter, deface, destroy, move, injure, obstruct by fastening vessels thereto or otherwise, or in any manner whatever impair the usefulness of any sea wall, bulkhead, jetty, dike, levee, wharf, pier, or other work built by the United States, or any piece of plant, floating or otherwise, used in the construction of such work under the control of the United States, in whole or in part, for the preservation and improvement of any of its navigable waters or to prevent floods, or as boundary marks, tide gauges, surveying stations, buoys, or other established marks, nor remove for ballast or other purposes any stone or other material composing such works: Provided, That the Secretary of the Army may, on the recommendation of the Chief of Engineers, grant permission for the temporary occupation or use of any of the aforementioned public works when in his judgment such occupation or use will not be injurious to the public interest: Provided further, That the Secretary may, on the recommendation of the Chief of Engineers, grant permission for the alteration or permanent occupation or use of any of the aforementioned public works when in the judgment of the Secretary such occupation or use will not be injurious to the public interest and will not impair the usefulness of such work."* 33USC 408.

**3. Location of the Proposed Alteration:** State Route 3033 (SR-3033, aka 2<sup>nd</sup> Street) Bridge crossing Sandy Lick Creek in Brookville Borough, PA. (41.149897 N, -79.080037 W)

**4. Federal Project Proposed to be Altered:** The Brookville Local Protection Project (LPP) was authorized by Section 203 of the Flood Control Act of 1958, as amended. It was constructed by USACE between 1960 and 1962 and turned over to the local sponsor, the Borough of Brookville, in October 1962 for operation and maintenance. The LPP's features include major channel improvements (deepening, widening, and straightening) on North Fork, Sandy Lick, and Redbank creeks.

FINAL EA for Brookville LPP Section 408 Review

**5. Requested Alteration:** PennDOT, proposes to replace SR-3033, 2<sup>nd</sup> Street bridge over Sandy Lick Creek on the existing alignment. The existing bridge is a two-span concrete box beam bridge. The bridge is classified by PennDOT as structurally deficient. The project entails replacing of the superstructure. The existing pier and abutments will remain. Alterations to the LPP that are temporary in nature include construction of a temporary causeway. No permanent alterations to the LPP are proposed.

A temporary earthen causeway will be constructed along the left bank of Sandy Lick Creek, upstream of the bridge, for crane placement to access the pier and lift the bridge beams for the superstructure replacement. This upstream location was chosen due to the existence of utility lines at the downstream face of the structure. The causeway will be constructed to an elevation of 1212.00 and four 36" diameter corrugated pipes will be placed through the causeway to facilitate flow. A temporary road to access the causeway will also be constructed within the upland southeast quadrant of the bridge. Excavation will not be required and R-4 rock (approximately 2,000 cubic yards) will be placed to create the temporary access road. The temporary causeway and access road are anticipated to be in place for six to seven months. The causeway and rock will be removed upon completion of the beam installation.

Construction of the temporary causeway will involve 273 linear feet and 16,632 square feet of Sandy Lick Creek. There will also be 64 linear feet (128 square feet) of temporary impacts to an unnamed tributary to Sandy Lick Creek (UNT-01) due to a temporary diversion of this stream outlet during the timeframe the causeway will be in place. No wetlands are located within the proposed project area.

The proposed replacement will consist of a 2-span PA bulb-tee beam bridge, with spans of 79'-5 5/8" and 78'-11 1/8" and a minimum underclearance of 23.57 feet. The proposed structure will have a skew of 75.5° and will be 40' 0" curb-to-curb.

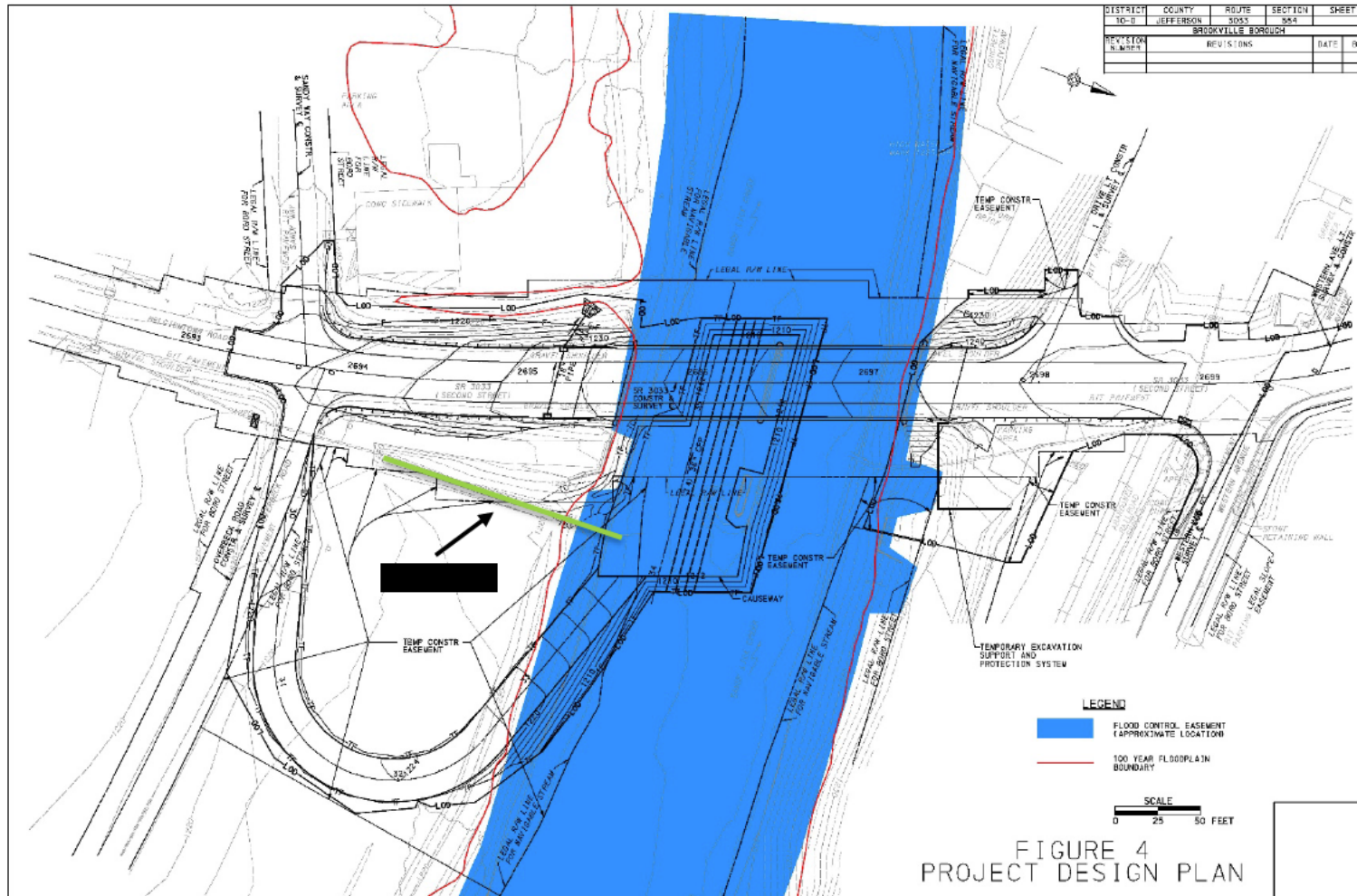


Figure 1. PennDOT water obstruction and encroachment graphic with the approximate LPP extent in the project area shown (based on as-built permanent easement extents).

## 6. Alternatives:

- a. No Action: Denial of the Section 408 request. Denial of the request would not permit modifications to the Brookville LPP, precluding the replacement of the structurally deficient bridge.
- b. Action Alternative: Requester's Preferred Alternative Approval of the Section 408 request allowing the alteration of the Brookville LPP for bridge replacement.

**7. Environmental Setting:** The Brookville LPP is located along Sandy Lick Creek in the borough of Brookville within Jefferson County, Pennsylvania. The project area is an existing roadway and bridge on a minor collector roadway into Brookville.

The existing SR-3033 bridge is a two span concrete box beam bridge with PA Type 10 Bridge Barrier. The bridge was built in 1965. The existing bridge is skewed 75.50° to the centerline of the roadway (14.50° to the stream). The span lengths are 84'-9" from center to center of bearings for both spans. The normal clear span lengths are 79'-5 5/8" and 78 - 11 1/8" for span 1 and span 2 respectively. The existing pier is a wall pier with a 3'-3" thickness and a rounded nose and tail. The abutments and the pier are aligned with the stream flow. The existing bridge has an open area of 3686 square feet.

The existing abutments and pier will remain and the superstructure will be replaced. The proposed bridge will have an open area of 3760 square feet and will be 43'-4 1/2" out-to-out.

PennDOT's traffic volume maps show an estimate of 1,900 vehicles using this route daily:

([http://www.dot7.state.pa.us/BPR\\_pdf\\_files/MAPS/Traffic/Traffic\\_Volume/County\\_Map\\_s/Jefferson\\_TV.pdf](http://www.dot7.state.pa.us/BPR_pdf_files/MAPS/Traffic/Traffic_Volume/County_Map_s/Jefferson_TV.pdf)).

The stream bed material consists of sand, gravel and cobbles. Two waterways exist within the project area, Sandy Lick Creek and an unnamed tributary (UNT-01 to Sandy Lick Creek). Sandy Lick Creek and the unnamed tributary are classified as Stocked Trout streams.

The nearest alternate stream crossing is at Mabon Street, which is approximately 1.7 mi additional travel from the south side of the 2<sup>nd</sup> Street bridge crossing over Sandy Lick Creek, and an additional 0.2 mi travel from the north side of the 2<sup>nd</sup> Street bridge crossing over Sandy Lick Creek.



Figure 2. Upstream face of bridge. (Photo provided by PennDOT.)



Figure 3. Downstream face of bridge. (Photo provided by PennDOT.)

**8. Environmental Effects of the Proposed Action:** Per EC 1165-2-216, *Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects*, the U.S. Army Corps of Engineers (USACE) has jurisdiction under Section 408 only over the specific activities or portions of activities that have the potential to alter the USACE project. Therefore, if a proposed alteration is part of a larger project (and/or its associated features) that extends beyond the USACE project boundaries, only those portions or features of the larger project over which USACE has sufficient control and responsibility are to be included in the USACE environmental review. The scope of analysis for the NEPA and environmental compliance evaluations for the subject request are limited to the area of the alteration and those adjacent areas that are directly or indirectly affected by the alteration.

PennDOT must acquire all other necessary permissions or authorizations required by federal, state, and local laws or regulations, including required permits from the USACE Regulatory Program (Section 10/404 permits). These permits will consider impacts beyond the LPP footprint commensurate with their scope. In addition, an approval under Section 408 does not grant any property rights or exclusive privileges.

*Table 1. Anticipated impacts of the proposed Section 408 activity.*

<b>Environmental Parameter</b>	<b>No-Action Alternative</b>	<b>Action Alternative</b>
Land Use & Socio-Economic Conditions	<b>Minor Effect.</b> Denial of the permit would result in the inability to replace the existing bridge. This may result in the loss of income to the local economy associated with the construction, as well as the cost of additional travel distance to each bridge user.	<b>Minor Effect.</b> The current land use patterns would not be significantly affected by this project. The local socio-economic conditions may even improve slightly during construction and possibly after construction.
Vegetation and Wildlife Habitat	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>Minor Effect.</b> The site is predominantly herbaceous vegetation which would recolonize quickly after construction.
Water Quality and Fisheries	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>Minor Effect.</b> Temporary (0.38 acres) impacts to Sandy Lick Creek and UNT-01 (.0030 acres) will occur. Temporary and erosion control measures will be used to protect water quality, including the use of filter socks. Concrete will not be allowed to enter the stream.

Floodplains	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>Minor Effect.</b> The project is located within the floodplain. Temporary effects to the floodplain will occur during construction. Area will be restored upon project completion. The new bridge will allow for more water passage, as it will have a larger hydraulic open area.
Noise	<b>Minor Effect.</b> Denial of the request, resulting in the inability to replace the existing bridge, would lead to eventual bridge closure, which would likely reduce traffic and its associated noise.	<b>Minor Effect.</b> Bridge replacement work would temporarily increase noise in the area during construction. The bridge replacement is not expected to significantly increase traffic or have a permanent impact on noise in the area.
Aesthetics	<b>Minor Effect.</b> Denial of the request, resulting in the inability to replace the existing bridge, would lead to continued deterioration of the structure.	<b>Minor Effect.</b> The presence of construction equipment and supplies during construction will have a temporary impact on aesthetics. The aesthetics of the new bridge are expected to be equivalent to or an improvement of the existing structure.
Recreation	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>No Effect.</b> No impact to recreation would occur.
Endangered Species	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>No Effect.</b> A PNDI search (PNDI-629466) showed that there are no effects to threatened or endangered species.
Historic and Archaeological Resources	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>No Effect.</b> The area has been previously disturbed by the construction of the LPP. The bridge is not eligible for the National Registry of Historic Places. No effects to cultural resources is expected.
Traffic	<b>Moderate Effect.</b> Denial of the request would result in the inability to replace the existing bridge. The bridge is classified as structurally deficient, which	<b>Minor Effect.</b> The bridge reconstruction may require temporary road closure and detours. No permanent impacts to traffic are expected.

	will result in eventual closure. The nearest alternate stream crossing at Mabon Street is about 1.7 mi additional travel from the south side of the 2 <sup>nd</sup> Street bridge crossing, and an additional 0.2 mi travel from the north side of the 2 <sup>nd</sup> Street bridge crossing.	
Public Safety	<b>No Effect.</b> Denial of the request would not be expected to impact public safety, if appropriate actions (road closures, signage) are locally employed.	<b>No Effect.</b> The Section 408 engineering review is under separate cover and found no objection to the 408 request. No change in the flood risk reduction benefit that would impact public safety is anticipated.
Hazardous Wastes	<b>No Effect.</b> Denial of the request would maintain the status quo.	<b>No Effect.</b> Clean fill will be used and proper waste disposal will occur.

**9. Cumulative Effects:** Routine operation and maintenance of the LPP by the Borough of Brookville is anticipated. The USACE 2017 inspection report of the LPP noted several maintenance and repair items, including areas of erosion, channel migration and shoaling (sediment deposition). Within the immediate vicinity of the proposed bridge replacement, it was noted that vegetation was well maintained in many areas and the report recommended continuance of vegetation control and removal. 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 proposed project's scale, the resources considered in Table 1, and information made available to the agency, no significant cumulative effects of the proposed alteration within the Section 408 authority are anticipated. Temporary impacts, including noise and traffic pattern changes, would not be significant. The bridge replacement is largely similar to the existing structure and is not anticipated to change overall traffic use of the area. Temporary construction-related increases in noise and emissions, and temporary, minor impacts to land use, vegetation, water quality, floodplains, aesthetics, and traffic would not be significant, even if they occur simultaneous to expected repairs/maintenance of the LPP.

**10. Coordination:** USACE provided a copy of this report to the appropriate agencies during the public comment period. A 15-day public comment period occurred from 25 April 2018 to 9 May 2018. No comments were received.

## **11. 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 Air Act, as amended, 42 U.S.C. 1857h-7, et seq.  
Clean Water Act, 33 U.S.C. 1251 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.  
Land and Water Conservation Fund Act, 16 U.S.C. 460/-460/-11, et seq.  
National Environmental Policy Act, 42 U.S.C. 4321, et seq.  
National Historic Preservation Act, 16 U.S.C. 470a, 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 (EO):**

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, 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 USC 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).

**12. Summary/Conclusion:** Based on the above analysis, USACE permission for PennDOT to alter the Brookville LPP, in the manner described above, is not a major Federal action significantly affecting the quality of the human or natural environment, and therefore does not require preparation of an environmental impact statement.

## **FINDING OF NO SIGNIFICANT IMPACT**

### **Section 408 Request to Alter the Brookville Local Protection Project Jefferson County, Pennsylvania**

In accordance with the National Environmental Policy Act (NEPA) and implementing regulations, an Environmental Assessment (EA) was developed to evaluate potential impacts associated with issuing permission to alter the federal Brookville Local Protection Project (LPP) along Sandy Lick Creek in Brookville, Pennsylvania. The Brookville LPP was authorized by Section 203 of the Flood Control Act of 1958. It was constructed by the U.S. Army Corps of Engineers (Corps) between 1960 and 1962 and consisted of major channel improvements on North Fork, Sandy Lick, and Redbank creeks to reduce the risk of flood damage to the local community.

The Pennsylvania Department of Transportation (PennDOT) proposes to replace the State Route 3033 (SR-3033 aka 2<sup>nd</sup> Street) bridge superstructure over Sandy Lick Creek on the existing alignment. The bridge has been classified as structurally deficient. Replacement of the bridge requires an alteration of the Brookville LPP, as the construction of a temporary causeway is necessary for access. The authority to grant permission for temporary or permanent alterations to a federal project is set forth at Section 14 of the Rivers & Harbors Act of 1899 and codified in 33 USC 408 (Section 408). Corps review ensures that proposed alterations are neither injurious to the public interest nor would they affect the federal project's ability to meet its authorized purpose.

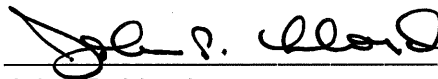
Per Corps guidance, the agency analyzed two alternatives including a "No Action" alternative (denial of the Section 408 request) and Alternative 1, the Requester's Preferred Alternative (granting of the Section 408 request). Outside of the 408 process, PennDOT must acquire any other necessary permissions or authorizations required by federal, state, and local laws or regulations, including any permits required by the Corps' Regulatory Program.

This EA has determined that the proposed action (granting of the Section 408 request) will not result in significant impacts to the natural or human environment, and does not require the preparation of an Environmental Impact Statement (EIS). All environmental, social, and economic factors that are relevant to the proposal were considered in this assessment. These include, but are not limited to, water quality, noise, wetlands, wildlife, threatened and endangered species, and cultural resources. Anticipated impacts include temporary and permanent impacts to vegetation, temporary stream impacts, temporary impacts to aesthetics, construction-related increases in noise, emissions, and traffic, and negligible impacts to floodplains. Best management practices would be used to minimize effects, including temporary erosion control

measures. No effects to public safety, recreation, wetlands, cultural resources or to threatened or endangered species are expected. Minor permanent benefits to local economic development would occur with the bridge replacement. Overall, effects are expected to be non-significant.

A 15-day public comment period occurred from 25 April 2018 to 9 May 2018. No comments were received.

After having carefully evaluated all aspects of the Proposed Action and based on the EA, I have reasonably concluded that the Proposed Action does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not required and will not be prepared.

A handwritten signature in black ink, appearing to read "John P. Lloyd", is written over a horizontal line.

John P. Lloyd  
Colonel, Corps of Engineers  
Pittsburgh District Commander

4 June 2018

Date