**US Army Corps of Engineers**
**Baltimore District**

# FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT

# CORPORATION OF SHEPHERDSTOWN WATER DISTRIBUTION SYSTEM IMPROVEMENTS PROJECT SHEPHERDSTOWN, WEST VIRGINIA

## SECTION 571 ENVIRONMENTAL INFRASTRUCTURE PROGRAM

**June 2023**

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# FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Corporation of Shepherdstown Water Distribution System Improvements Project

In accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, the U.S. Army Corps of Engineers (USACE), Baltimore District, has assessed the environmental effects of the Corporation of Shepherdstown Water Distribution System Improvements Project, located in Shepherdstown, Jefferson County, West Virginia. The Baltimore District is cost sharing the Project with the Corporation of Shepherdstown, the non-federal sponsor. The Project involves removing and replacing existing waterlines that are currently located within existing rights-of-way (ROWs) and previously disturbed areas. The Project would update the existing infrastructure to better distribute and/or provide adequate fire protection for the residents and commercial properties in the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane in Jefferson County, West Virginia. The existing waterlines are not of appropriate capacity to provide for the adequate distribution of water for fire protection.

The Northern West Virginia Environmental Infrastructure and Resource Protection and Development Program was authorized by Section 571 of the Water Resources Development Act (WRDA) of 1999 (PL 106-53), as amended, by Section 5155 of WRDA 2007 (PL 110-114), Section 352(b)(13) of WRDA 2020 (PL 116-260), and Section 8373 (PL 117-263) of WRDA 2022. The primary objective of the Section 571 Program is to provide design and construction assistance to non-Federal interests carrying out water-related environmental infrastructure and resource protection and development projects in counties within northern West Virginia. The environmental assessment was prepared in compliance with NEPA 40 CFR Parts 1500-1508, NEPA Implementing Regulations, dated 20 May 2022, and supporting regulations promulgated by the Council on Environmental Quality and the USACE. Two alternatives were considered and evaluated for this project, Alternative #1 (No Action Alternative) and Alternative #2 (Preferred Action Alternative).

Potential impacts to the human and physical environment were assessed. Impacts from the proposed project include short-term, minor, adverse impacts to soils, floodplains, air quality, noise, traffic, and temporary loss of vegetation (predominately grass and shrubs, with a few street trees possible) in some areas during construction. Appropriate steps to minimize potential adverse impacts, such as the implementation of best management practices, will be incorporated into the Project. The proposed project would not have adverse effects to surface water quality and no adverse effects to threatened or endangered species or their critical habitat. No impacts to cultural resources or National Register of Historic Places properties are expected. Tribal consultation has also been completed with no concerns of impacts.

The accompanying environmental assessment, which has been made available for a 30-day public review, supports the conclusion that the Project does not constitute a major federal action significantly affecting the quality of the human environment. Therefore, an environmental impact statement is not necessary to perform the proposed water line expansion.

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Date

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## Appendices

# 1 Introduction

## 1.1 Project Authority

The Northern West Virginia Environmental Infrastructure and Resource Protection and Development Program was authorized by Section 571 of the Water Resources Development Act (WRDA) of 1999 (PL 106-53), as amended, by Section 5155 of WRDA 2007 (PL 110-114), Section 352(b)(13) of WRDA 2020 (PL 116-260) and Section 8373 (PL 117-263) of WRDA 2022. The primary objective of the Section 571 Program is to provide design and construction assistance to non-Federal interests carrying out water-related environmental infrastructure and resource protection and development projects in counties within northern West Virginia. This project is located within the Corporation of Shepherdstown in Jefferson County, West Virginia (WV).

## 1.2 Project Background

The Corporation of Shepherdstown Water Distribution System Improvements Project (Project) will be located within the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane in Jefferson County, WV. The proposed project falls within the Potomac River Watershed and the Shepherdstown U.S. Geological Survey (USGS) 7.5-minute quadrangle. The Project involves removing and replacing existing waterlines that are currently located within existing rights-of-way (ROWs) and previously disturbed areas. Please refer to Attachment A, Figure 1 for a location map with the Project's proposed limits of disturbance (LOD).

## 1.3 Purpose and Need

The purpose of the Project within the service area is to supplant (replace) existing water lines that are currently located within existing ROWs and previously disturbed areas. The Project would update existing infrastructure to better distribute and/or provide adequate fire protection for the residents and commercial properties in the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane.

The Project is needed to improve water distribution for the purpose of fire protection for the current residents and commercial properties of Shepherdstown, WV. The existing waterlines are not of appropriate capacity to provide for the adequate distribution of water for fire protection due to the existing infrastructure being undersized. This project includes the construction of approximately 16,825 LF of PVC pipe ranging from 2-inches to 8-inches, and 3,915 LF of 3/4-inch service lines, gates valves, fire hydrants, and all other associated appurtenances. Other work includes steel casing (jack & bore/open cut), trench repair, asphalt overlay/driveway restoration, 185 EA service reconnections, 13 connections to existing waterline, existing rip rap ditch repair, mobilization/demobilization, videotaping, and erosion and sediment control. The Project would replace outdated and undersized existing lines in addition to reaching new service areas, with 17 new fire hydrant assemblies being installed. For more detailed specifications, please see the Shepherdstown Letter Report in Attachment D. Current and future residents of Shepherdstown would benefit from the replacement of the water lines via an updated water conveyance system, access to adequate fire protection, and increased capacity for community and economic growth.

This environmental assessment (EA) and Finding of No Significant Impact (FONSI) have been prepared by the U.S. Army Corps of Engineers (USACE) Baltimore District and Decota Consulting Company, Inc. (Decota) on behalf of the Corporation of Shepherdstown, pursuant to the National Environmental Policy Act of 1969, as amended (NEPA) and Engineering Regulation (ER) 200-2-2. This EA evaluates the potential environmental and socioeconomic impacts from construction and general operation of the Project.

### 1.4 Public and Agency Coordination

In compliance with NEPA, coordination was conducted with Federal, State, and local resources agencies (Attachment B). A public notice of availability will be posted by the non-federal sponsor (NFS) in a local newspaper, which will be published for general circulation in Jefferson County. The public will have 30 days to provide comments after the public notice is posted. The USACE will also post a public notice on the USACE Baltimore District public notice website.

Decota coordinated with the WV State Historic Preservation Office (SHPO) to ensure compliance with Section 106 of the National Historic Preservation Act (Attachment B). Consultation letters were electronically mailed on 7 February 2023 by the USACE to the Eastern Shawnee Tribe of Oklahoma, the only federally recognized tribe with potential interest in the project area. A response was not received from the Eastern Shawnee Tribe of Oklahoma; therefore, it is assumed by the USACE that there are no concerns from Tribal Nations for this undertaking.

Agency coordination was conducted by Decota through the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation (IPaC) online system on 29 November 2022 and 14 April 2023 (Attachment B). A second coordination effort was performed in April to capture the new listing status of the Northern Long-Eared Bat. A WV Division of Natural Resources (WVDNR) review was also performed, and a report was generated on 8 December 2022 (Attachment B).

## 2 Project Description

The Project includes the construction and replacement of 16,865 linear feet of waterlines, gate valves, fire hydrants, and other associated appurtenances to supplant an inadequate water distribution system within the corporation of Shepherdstown, WV. The estimated project LOD is 3.71 acres. The Project would have a service impact on 200 homes through improved delivery of drinking water and fire suppression.

The Project would supply existing residents and commercial properties with much needed infrastructure improvements for more adequate water distribution and/or provide adequate fire protection in the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane. Work for the Project would be completed within existing ROWs and previously disturbed areas.

# 3 Alternatives Considered

## 3.1 Alternative #1 – No-Action Alternative

Under the no-action alternative, much needed infrastructure improvements would not be made, and existing water lines would not be updated. Fire hydrants would not be replaced or added under the no-action alternative due to the current diameter piping of the existing fire suppression system. Existing residents and businesses would continue to use existing water lines for their water distribution and fire protection as well as hinder future economic growth within the area. This alternative does not meet the purpose and need of the Project.

## 3.2 Alternative #2 – Preferred

Alternative #2 includes the construction and replacement of 16,865 linear feet of waterlines, gate valves, fire hydrants, and other associated appurtenances to supplant the water distribution system. Specific project components are listed in Section 1.3 and Section 2. The Project would update existing infrastructure to better distribute water and/or provide adequate fire protection to the residents and commercial properties in the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane. Currently, the existing diameter of fire suppressions lines is 2-4-inches, where the upgraded lines will be 6-inches diameter or greater, which will allow for the proper flow to support the addition of 17 new fire hydrants. Project construction would be completed within existing ROWs and previously disturbed areas.

## 3.3 Evaluation of Alternatives

Based upon the alternatives considered above, Alternative #2, has been determined to be the most desirable, cost-effective, and preferred alternative for serving the properties within the corporation of Shepherdstown, WV. Alternative #1 would not allow for much needed infrastructure improvements, which could impede the distribution of water for both consumption and fire protection to the residents within the project area. Alternative #1 would not address any underlying issues within the water distribution system or provide any level of improvement. The potential environmental, cultural, and social impacts associated with the alternatives are discussed below.

# 4 Existing Conditions and Project Impacts

This section describes the existing conditions (the affected environment for NEPA purposes) and the potential project impacts on the natural and socioeconomic resources categories that are applicable to the area affected by the project alternatives. Each environmental, cultural, and social resource category was reviewed for its applicability to the Project.

For the purpose of describing existing conditions and environmental effects, the project area is defined as the area directly affected by project construction or LOD (Attachment A). The project area is located within existing ROWs and previously disturbed areas within the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane. Online environmental resource information, Google Earth Pro,

Google Maps imagery, and on-site investigations were used to assess existing conditions.

## 4.1 Land Use

The primary land use in the project area is residential and commercial. The areas of Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane in Shepherdstown, WV are primarily residential in nature, with a mix of single-family homes, townhouses, and apartments. These areas are located in close proximity to the town center and are within walking distance of local amenities such as schools, parks, and commercial areas. There are also some commercial and mixed-use developments located along East High Street and Mill Street, which provide additional services and amenities for the surrounding community. Overall, the land use in these areas is well-established and primarily serves the needs of the residents.

Alternative #1 (No-Action) and Alternative #2 (Preferred) will not impact land use, nor will the land use type be changed.

## 4.2 Geology and Topography

Shepherdstown, WV is located in the eastern panhandle of West Virginia, in the Appalachian Plateau physiographic province. Shepherdstown is situated on the floodplain of the Potomac River, which has shaped the local geology and topography. The region is characterized by flat residential and commercial areas, rolling hills, and valleys, with elevations ranging from 100 to 500 feet above sea level. The underlying geology is predominantly sedimentary, with layers of sandstone, shale, and limestone that were formed during the Mississippian and Pennsylvanian periods. These rock formations are often exposed at the surface and can be seen in the cliffs and bluffs along the Potomac River. The town is also located near the transition between the Appalachian Mountains and the Piedmont Plateau. The Piedmont Plateau is characterized by gently rolling hills and valleys, while the Appalachian Mountains are characterized by steep slopes and more rugged topography. This transition zone has resulted in a varied and complex landscape in the Shepherdstown area. Shepherdstown is located within the Appalachian Plateau physiographic province. The estimated project LOD is 3.71 acres.

The proposed LOD would occur within existing ROWs and previously disturbed areas, and the land returned to its existing condition to the maximum extent practicable, immediately after construction. No impacts to geology are anticipated from Alternative #1 (No-Action) or Alternative #2 (Preferred). Adverse impacts to local topographic areas will be short-term and minor.

## 4.3 Soils

The web-based U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) mapping program determined the soil types found within the proposed project area to be primarily composed of well drained clayey and silty loams. These include soil types such as the Urban Land – Hagerstown complex (UwC), which is a well-drained soil found on slopes and hillsides and characterized by a clayey residuum weathered from limestone. Other soil types in the area include the Ryder – Poplimento complex (RrC), which is well drained and

found on slopes and hillsides and characterized by a loamy residuum weathered from limestone and shale, and the Poplimento silt loam (PmC), which is a well-drained clayey residuum weathered from limestone and siltstone. In some areas, there may also be pockets of Hagerstown – Rock outcrop complex (HrC), which is a well-drained silt loam with clayey residuum weathered from limestone.

Overall, the soil in the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane areas of Shepherdstown, WV is generally well-drained and suitable for development, with some variations in soil type and characteristics depending on the specific location. See Attachment A for the USDA NRCS Soil Report.

No impacts to soils are expected to occur as part of Alternative #1 (No-Action). Alternative #2 (Preferred), is expected to have short-term, minor, adverse impacts to soils and only occur during construction of the Project. Soils are expected to be returned to normal conditions post-construction.

### 4.4 Prime and Unique Farmlands

A review of soil farmland classes within the project area was performed using the USDA NRCS USA Soil Farmland Class data imagery layer on ArcGIS Online by Esri. Prime farmland and farmland of statewide importance are mapped within the project area; however, there are no agricultural fields within the proposed project LOD. The project area is within existing ROWs and previously disturbed areas, and in areas that were previously disturbed and/or developed.

No impacts are expected to occur to Prime and Unique farmlands from the Alternative #1 (No-Action) or Alternative #2 (Preferred).

### 4.5 Surface Waters

Town Run, a tributary of the Potomac River, flows through the project area crossing North Princess Street and East Hight Street. Town Run flows through a culvert under both streets and exits to the northeast, toward the Potomac River. Town Run is classified as a perennial, second order stream according to the National Hydrography Dataset (NHD) layer in ArcGIS.

No impacts to surface waters will occur as part of Alternative #1 (No-Action). Alternative #2 (Preferred) would cross Town Run in one location on East High Street. However, the stream currently flows through a culvert under East High Street and has been straightened by a cobble/stone wall on either side. No in-stream work would occur. Any necessary erosion and sediment control plans and/or stormwater permits will be obtained prior to commencing construction, and work is expected to be performed in accordance with such permits. No impacts to surface waters will occur as part of Alternative #2. If conditions will require impacts to surface waters or wetlands, the NFS will be responsible for obtaining any Federal and/or State permits, as applicable.

## 4.6 Floodplains

Executive Order number 11988, requires the Federal government to take into consideration the effects that its actions will have on floodplains. According to the WV Flood Mapping tool, portions of the project LOD are located within the 100-year floodplain of the Potomac River (HUC: 02070004). See Attachment A, Figure 2 for the WV Flood Map. Alternative #2 (Preferred) would be installed along existing ROWs and previously disturbed areas. Short-term, minor, adverse impacts to the floodplain would occur as a result of Alternative #2 (Preferred) during construction. The floodplain would be restored to the existing condition following construction. Erosion and sediment controls would be used to minimize impacts to the surrounding floodplain. No impacts are expected to floodplains from Alternative #1 (No-Action).

## 4.7 Wetlands

Executive Order number 11990 requires federal agencies to evaluate potential impacts to wetlands, consider alternatives to wetland sites, and limit damage to wetlands if impacts cannot be avoided. Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands perform important water quality functions such as filtration and provide food and habitat for fish and other wildlife. Along with open water, wetlands are breeding, spawning, feeding, cover and nursery areas for fish and are important nesting, migrating, and wintering areas for waterfowl and other wildlife.

No wetlands were observed with the project LOD during an on-site visit on 7 December 2022. A review of the USFWS's National Wetlands Inventory (NWI) shows no wetlands within the LOD of the Project (See Attachment A, Figure 3). Therefore, no impacts are expected to wetlands and associated Section 401 Clean Water Act permits or water quality certification will not be applicable for Alternative #1 (No-Action) or Alternative #2 (Preferred).

## 4.8 Wild and Scenic Rivers

The National Park Service's National Wild and Scenic Rivers Systems was used to assess the presence of wild and scenic rivers within the project area. There are no federally designated Wild and Scenic Rivers within the project area; therefore, no impacts are expected from Alternative #1 (No-Action) or Alternative #2 (Preferred).

## 4.9 Terrestrial Resources

According to the WVDNR, the principal species of game in Jefferson County, WV are white-tailed deer, turkey, and a variety of small mammals, including squirrel and rabbit (WVDNR, 2022). The project area is adjacent to wooded areas as well as residential and commercial lots. Due to the proximity of the Project to the city, state roads, and railroads, the vegetation within the project area is predominantly grass and shrubs, with occasional street trees.

Construction of Alternative #2 (Preferred) would be limited to areas of pre-disturbed city, state road, and railroad ROWs and would have short-term, minor impacts to wildlife. Temporary

displacement of wildlife may occur during construction, but wildlife is expected to return to the area after construction is complete. Because the work would be conducted in existing ROWs and previously disturbed areas, no major adverse impacts to terrestrial resources are expected. No impacts to terrestrial resources will occur as part of Alternative #1 (No Action).

## 4.10 Rare, Threatened and Endangered Species

The USFWS IPaC System website was consulted to identify federally listed species potentially occurring in the project area. An Endangered Species Act species list was generated on 16 February and 14 April 2023 (Attachment B) and five species were identified as potentially occurring within the project area: the federally-endangered Indiana Bat (*Myotis sodalis*) and Northern Long-eared Bat (*Myotis septentrionalis*), the proposed federally-endangered Tricolored Bat (*Perimyotis subflavus*), the federally-threatened Madison Cave Isopod (*Antrolana lira*), and the candidate species Monarch Butterfly (*Danaus plexippus*).

The Indiana Bat is found in a wide range of habitats, including deciduous forests, mixed forests, and agricultural lands. It is most commonly found in areas with large, mature trees that provide suitable roosting sites. The Northern Long-eared Bat hibernates in caves and mines during the winter months and swarms in surrounding wooded areas in the autumn. The Northern Long-eared Bat roosts behind loose pieces of bark within cavities and crevices of live and dead trees during the warmer months. The Tricolored Bat hibernates in caves and mines during the winter months and primarily roosts among leaves of live or recently dead deciduous hardwood trees during the summer months. They may also be found roosting in pine trees and occasionally human structures. (USFWS, 2022). No hibernacula were found to occur within the project area and no trees are expected to be removed during construction of Alternative #2 (Preferred). Construction would occur in previously disturbed areas within existing ROWs and previously disturbed areas, and no trees are expected to be removed.

The Madison Cave Isopod is found swimming freely through flooded caves formed in ancient limestone (USFWS, 2021). Alternative #2 (Preferred) would be conducted within existing disturbed areas and ROWs; therefore, no impacts to the Madison Cave Isopod are expected.

Due to the Project's footprint being limited to impervious surfaces or grass-dominated areas, no impacts to the Monarch Butterfly are expected from the construction of Alternative #2 (Preferred). No impacts to rare, threatened, and endangered species will occur as part of the Alternative #1 (No-Action). See Attachment B for USFWS and WVDNR consultation responses detailing the No-Effect Determinations for Alternative #2 (Preferred).

## 4.11 Air Quality and Greenhouse Gas Emissions

Jefferson County is listed as being in attainment for all criteria pollutants in the United States Environmental Protection Agency's (USEPA) Green Book National Area and County-Level Multi- Pollutant Information list (USEPA, 2022). Minor, short-term and localized direct impacts to air quality would occur as a result of construction activities that generate exhaust emissions and fugitive dust. Emissions from Alternative #2 (Preferred) would not pose a significant risk to the environment or the health of workers or the public because they would be minor in quantity and are short-term in nature. Emissions from Alternative #2 (Preferred) would cease once

construction stops and no new stationary emission sources would be created.

Greenhouse gas emissions from the combustion of fossil fuels as part of the construction of Alternative #2 (Preferred) would not pose a significant risk to the environment or the health of workers or the public because they would be short-term and minor in quantity. Greenhouse gas emissions from Alternative #2 (Preferred) would cease once construction stops and no new stationary emission sources would be created. No impacts to air quality or greenhouse gas emissions will occur as part of Alternative #1 (No-Action).

### 4.12 Noise

Noise levels are measured in decibels (dBA) for regulatory purposes. The threshold of human hearing is 0 dBA, with values above 85-90 dBA considered as loud and as potentially harmful to hearing if given sufficient exposure time. Noise levels above 140 dBA can cause damage to hearing after a single exposure (OSHA, n.d.). The project area is adjacent to both residential and commercial areas. A common source of noise within the project area includes vehicular traffic.

Noise generated during construction is expected to come from construction vehicles, backhoes, excavators, saws for cutting existing water lines, and jackhammering, to name a few. There would be no permanent changes to the noise levels in the project area; however, some of these construction activities may exceed values above 85-90 dBA during construction. Due to the relatively close proximity of the Project to residential areas and the Shepherdstown University campus, prior notification of the hours/dates of construction would be given and measures to minimize noise, such as equipment mufflers, would be used. The rise in noise levels would be minor and temporary, and primarily during the daylight hours of construction. Protective equipment would be recommended to protect workers from excessive noise levels during construction. Additionally, Jefferson County, WV has a noise ordinance to abate excessive residential noise where such noise is deemed a public nuisance. However, Section 5(b)(10) and Section 5(b)(13) exempts authorized construction activities or demolition activities and activities by the federal, state, or local governments from being subject to said ordinance, respectively.

Noise is expected to have a short-term, minor, adverse impact to areas adjacent to construction for Alternative #2 (Preferred). No impacts to noise will occur as part of Alternative #1(No-Action).

### 4.13 Cultural Resources

USACE is required by Section 106 of the National Historic Preservation Act and Executive Order 11593 to identify all archaeological resources and historic properties within a project's area of potential effect that are eligible for listing in the National Register of Historic Places, and to assess the Project's effect on those properties. Coordination was initiated with the WV SHPO for the proposed project. Decota Consulting Company, Inc. (Decota) submitted a request to WV SHPO on behalf of the Corporation of Shepherdstown, to identify potential cultural resource concerns related to the Project.

In a response letter dated 29 December 2022, WV SHPO expressed concerns regarding portions of the Project located along North Mill Street and High Street within the Shepherdstown Historic

District and the section along Katie Lane, just south of the Van Swearingen-Shepherd House (Attachment B). Specific concerns were those regarding the limestone curbs and cut stone walls located within the Project boundary. Because the limestone curbs and cut stone walls are integral to the historical character of Shepherdstown, WV SHPO has concluded that the Project will result in a *conditional no adverse effect* to the abovementioned architectural resources (the Shepherdstown Historic District and the Van Swearingen-Shepherd House), assuming the following conditions are met during Project construction:

- Effects to the stone curbs and cut stone walls will be avoided by the Project,
- Or, if the effects cannot be avoided, then the stone curbs will be reinstalled in their original locations and the cut stone walls rebuilt to their original condition following the completion of the Project.

Additionally, in the 29 December 2022 response letter, WV SHPO concluded that no impacts to archeological resources will occur as part of Alternative #2 (Preferred).

USACE provided information about the Project in a letter to the Eastern Shawnee Tribe of Oklahoma, who are the only federally listed tribe with potential interest in the area. The consultation letter was electronically mailed on 7 February 2023 to the tribe. No response was received by the USACE.

At SHPO's request, Decota provided information about the Project to the Preservation Alliance of West Virginia, Shepherdstown Historic Landmarks Commission, and the Jefferson County Historic Landmarks Commission on 5 January 2023. No responses were received.

### 4.14 Aesthetics and Recreation

The project area is predominantly residential and/or commercial. Shepherdstown University is located near the eastern end of the project area. The University campus contains athletic fields, open spaces, and recreational areas. Temporary impacts to aesthetics could occur during construction. However, no impacts to aesthetic or recreational impacts from Alternative #2 (Preferred) are anticipated. No impacts to aesthetics and recreation will occur as part of Alternative #1 (No-Action).

### 4.15 Transportation

S stated earlier, the LOD of the Project is located in predominantly residential and/or commercial areas. The project area has low traffic conditions. The work for the Project would occur along the Mecklenburg Heights Subdivision, Lukens Circle, East High Street, Mill Street, Rock Springs Road, Scott Drive, and Lynmouth Lane.

Short term, minor, adverse impacts to transportation are likely to occur as a result of the construction activities associated with Alternative #2 (Preferred). Traffic may temporarily be stopped or rerouted. The road rerouting and closings would follow WV Department of Transportation, Division of Highways (WVDOH) regulations. Roads, driveways, and sidewalks damaged during construction would be repaired and replaced as needed. No impacts to transportation will occur as part of Alternative #1 (No-Action).

## 4.16 Demographic and Socioeconomic Conditions

According to the U.S. Census Bureau, 2020 American Community Survey (ACS) report, there was a population of 1,529 in Shepherdstown, WV. The median age was 21.8 years, with 0.4 percent of the population under the age of 5 and 9.6 percent over 64 years of age. Minorities comprised 20 percent of the population compared with 10 percent statewide. The median household income was $80,610 for Shepherdstown compared to $82,551 for Jefferson County. The low-income population rate of 7.52 percent for Shepherdstown was lower than the state average of 16.8 percent. Jefferson County has above average high school graduation rates, 90 percent based on 2022-2023 public school information.

The impacts of Alternative #2 (Preferred) on demographic and socioeconomic conditions are considered positive when acknowledging the need for the Project, which would improve distribution of water for consumption and fire protection to the Project's service area. Improvements to the water distribution system are expected to improve the quality of life for the residents and maintain local business operations for commercial properties within the Project's service area.

Impacts to demographic and socioeconomic conditions may occur as part of Alternative #1 (No-Action). Alternative #1 would not meet the need for the Project, disregarding the demand for improved water distribution for the purpose of consumption and fire protection.

## 4.17 Hazardous, Toxic, and Radioactive Substances

On December 7 and 8, 2022, Decota staff conducted a site visit of the proposed project alignment. This visit was conducted in order to fulfill the requirements of a Phase I Environmental Site Assessment (ESA) associated with the Project. A total of 331 parcels of property were identified to be within or closely adjacent to the LOD for the Project. Desktop and visual on-site evaluations were completed for each of the 331 parcels for Recognized Environmental Conditions (RECs), which are defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property as defined by the American Society for Testing and Materials International Standard (ASTM) E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Using best professional judgement, two commercial properties within the project area met the requirements of needing detailed discussion. The EDR analysis revealed no evidence of RECs, including aboveground storage tanks (ASTs), underground storage tanks (USTs), or leaking underground storage tanks (LUSTs), found to occur within the LOD of the Project, including the two subject properties. To provide easier review of the Phase 1 ESA document, the EDR report was not included in Attachment C of this document. If a review of the EDR report is requested, USACE Baltimore can provide access. Please submit a comment to review the EDR on the USACE Public Notice website (https://www.nab.usace.army.mil/Missions/Civil-Works/Central-WV-Infrastructure-571-Program/).

Additionally, a review of the USEPA Envirofacts database was conducted. There are no known sources of hazardous, toxic, and radioactive wastes (HTRW) in the proposed project area or within 1,000 feet of the project area. Therefore, no impacts from HTRW are anticipated for

Alternative #1 (No-Action) or Alternative #2 (Preferred). If any contamination is discovered, work at the site of the contamination would cease until coordination with the West Virginia Department of Environmental Protection (WVDEP) and USACE could occur, and appropriate remediation and proper safety measures are implemented.

## 4.18 Environmental Justice

Executive Order (EO) 12898, Environmental Justice, requires Federal agencies to identify and address, as appropriate, "disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." In Shepherdstown, WV, minorities comprise 20 percent of the total population, with 16 percent of the total population living below the poverty line (U.S. Census Bureau 2022).

According to the Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST), Version 1.0 (November 22, 2022), none of the three census tracts comprising the Project's LOD (Tract Nos. 54037972201, 54037972203, and 54037972204) were identified as being disadvantaged.

EO 14096, *Revitalizing our Nation's Commitment to Environmental Justice for All*, expands on EO 12898 to also include Tribal affiliation and disability in the definition of environmental justice. Environmental justice analyses are performed to identify potential disproportionate adverse effects from proposed actions and to identify alternatives that might mitigate these effects. American Community Survey (ACS) data (2016-2020) was evaluated for disability characteristics.

**Table 1: Percent of Population with Disabilities**

| Category | United States | West Virginia | Jefferson County |
|---|---|---|---|
| **Percent Population with Disability** | 13% | 18% | 13% |

Source: 2021: ACS 5-Year Estimates Disability Characteristics Table S1810 (USCB, 2021)

Alternative #1 (No-Action) or Alternative #2 (Preferred) are not expected to result in disproportionately high and/or adverse human health or environmental effects on socially vulnerable or low-income populations.

## 4.19 Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 to protect drinking water and its sources, which include, rivers, lakes, reservoirs, springs and ground water wells. The SDWA authorizes the US EPA to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water. Outside threats such as chemicals, the use of herbicides and pesticides, animal and human waste, wastes injected underground, and naturally occurring substances can all contaminate drinking water. To ensure drinking water is safe, the SWDA sets up barriers against pollution that include, source water protection, treatment,

distribution system integrity, and public information (US EPA, 2004). The Corporation of Shepherdstown is responsible and is expected to maintain compliance with the SDWA for their water distribution system (including this project).

Alternative #1 (No-Action) and Alternative #2 (Preferred) are not expected to result in negative impacts to drinking water. Conversely, the proposed project will benefit residents by providing an updated water delivery system for fire protection and/or consumption.

## 5 Summary

The Project would update existing infrastructure to better distribute and/or provide adequate fire protection for the residents and commercial properties within the project area. The Project would provide benefits to both demographic and socio-economic conditions as it would increase and improve water distribution. No impacts, during or post construction of Alternative #2 (Preferred), are expected to occur to the land use, Prime and Unique farmlands, wetlands, Wild and Scenic Rivers, federal or state listed species, or environmental justice communities within the project area. Some minor, temporary, adverse impacts are expected to occur to soils, floodplains, air quality, noise, and transportation during the construction phase of Alternative #2 (Preferred). However, once construction has been completed, these impacts will cease to occur. Additionally, no hazardous waste is expected to be produced as a result of construction of Alternative #2 (Preferred).

Per WV SHPO, Alternative #2 (Preferred) has been assigned a *conditional no adverse effect* determination on architectural resources, assuming specific conditions are met during construction. Refer to Section 4.13 – Cultural Resources for information regarding WV SHPO's special conditions.

Table 1 summarizes the level of compliance of Alternative #2 (Preferred) with environmental protection statutes and other environmental regulations. Based on the evaluation of environmental effects described in Section 4, there are no significant impacts from the Alternative #2 (Preferred), and a FONSI has been prepared.

**Table 2. Compliance of Alternative #2 (Preferred) with Environmental Protection Statutes and Other Environmental Requirements**

| Federal Statutes, Executive Orders (EOs), and Memoranda | Level of Compliance |
|---|---|
| Archeological and Historic Preservation Act | Full |
| Clean Air Act | Full |
| Clean Water Act | Full |
| Coastal Barrier Resources Act | N/A |
| Coastal Zone Management Act | N/A |
| Comprehensive Environmental Response, Compensation and Liability Act | Full |
| Endangered Species Act | Full |
| Federal Water Project Recreation Act | N/A |
| Fish and Wildlife Coordination Act | Full |
| Magnuson-Stevens Act | N/A |
| National Historic Preservation Act | Full |
| National Environmental Policy Act | Full |
| River and Harbors Act | N/A |
| Watershed Protection and Flood Prevention Act | Full |
| Wild and Scenic Rivers Act | N/A |
| Floodplain Management (EO 11988) | Full |
| Protection of Wetlands (EO 11990) | Full |
| Prime and Unique Farmlands (Memorandum, CEQ, 11 August 1980) | Full |
| Environmental Justice in Minority and Low-Income Populations (EO 12898) | Full |
| Safe Water Drinking Act | Full |

# 6 Required Coordination

## 6.1 Agencies Contacted

Direct coordination with USACE Baltimore District, West Virginia State Historic Preservation Office, Jefferson County Historic Landmarks Commission, Preservation Alliance of West Virginia, Shepherdstown Historic Landmarks Commission, West Virginia Division of Natural Resources, Eastern Shawnee Tribe of Oklahoma, and USFWS was completed. Agency correspondence is included in Attachment B.

## 6.2 Public Review and Comments

The EA and FONSI will be made available for public review and comment for a period of 30 days, as required under NEPA. Relevant comments will be addressed.

# 7 Conclusion

The Shepherdstown water system improvements project Alternative #2 (Preferred) will provide benefits to the area by supplanting the current inadequate water lines and providing better delivery of consumable water and water for fire protection to the residents and business of Shepherdstown, WV. No known projects contributing directly to population or economic growth are in construction at this time; however, Alternative #2 (Preferred) could encourage additional

development of undeveloped or underdeveloped parcels within the service area. Current and future residents of Shepherdstown would benefit from the replacement of the water lines via an updated water conveyance system, access to adequate fire protection, and increased capacity for community and economic growth. Therefore, no known adverse impacts are expected.

## 8 List of Information Providers and Preparers

The following agencies were involved in preparation of the EA:

U.S. Army Corps of Engineers, Baltimore District
2 Hopkins Plaza
Baltimore, Maryland 21201

Decota Consulting Company, Inc.
4984 Washington Street West Cross Lanes
Charleston, West Virginia 25313

## 9 References


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