US Army Corps of Engineers
Baltimore District

FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT

CENTRAL HAMPSHIRE PUBLIC SERVICE DISTRICT SOUTHWESTERN HAMPSHIRE COUNTY WATER EXTENSION PROJECT PURGITSVILLE, WEST VIRIGNIA

SECTION 571 ENVIRONMENTAL INFRASTRUCTURE PROGRAM

January 2023

Prepared by:

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)

Southwestern Hampshire County Water Extension 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 Southwestern Hampshire County Water Extension Project, located in Hampshire County, West Virginia. The Baltimore District is cost sharing the extension of the waterline along US Route 220 from the Hampshire and Hardy County border, and extending north to the community of Rada, West Virginia. The non-federal sponsor is the Central Hampshire Public Service District. The proposed action consists of installing approximately 71,000 linear feet of polyvinyl chloride (PVC) waterline, ranging from 2-inches in diameter to 6-inches in diameter and a 50- gallon per minute booster station. A 50,000-gallon water storage tank is also proposed as part of the larger installation but will be constructed under a separate contract, not associated with the Section 571 Program. The proposed extension would service residents and commercial properties along US Route 220, totaling approximately 120 Equivalent Dwelling Units. The proposed project would supplant existing private wells and cisterns that pose a potential risk to public health through untreated contaminants in the ground water.

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. Four alternatives were considered and evaluated for this project including the No Action Alternative.

Currently, the citizens living within the project area along US Route 220 rely on private wells and cisterns with poor water quality. Recent tests for iron, methane, lead, and arsenic in private well water conducted in early 2019 by Reliance Laboratories, Inc. show at least one location with lead and concerning levels of arsenic and methane. Results from these tests, paid by and conducted by a grassroots initiative from the citizens of the project area, justified concerns that the residents have maintained for years regarding the quality and safety of their private water sources. This testing and local research has generated a strong demand and urgency for public water service in the area.

Potential impacts to the human and physical environmental were assessed. Short-term, minor, adverse impacts from the proposed project include dust, air emissions, and noise from construction activities, potential disruption of traffic during construction, and temporary loss of vegetation in some areas. Permanent vegetation loss is expected for clearing of the access road and the 20-ft in diameter, 50,000-gallon water storage tank. The extension of the waterline would replace personal well and cisterns, thereby benefitting the community through provision of safe and reliable drinking water. 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 an adverse effect on any threatened or endangered species or their critical habitat. No impacts to cultural resources or National Register of Historic Places properties are expected. Tribal coordination has also been completed.

The accompanying environmental assessment, which will be 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

Esther S. Pinchasin

Colonel, U.S. Army

Commander and District Engineer

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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 near the town of Purgitsville, Hampshire County, West Virginia.

1.2 Project Background

The Central Hampshire Public Service District (PSD) Water Extension Project is located in Hampshire County, West Virginia and would provide drinking water to residences along US Route 220 and its surrounding communities from the Hardy County line in the south, through the town of Purgitsville, to the town of Rada to the north (Figure 1). In early 2019, USACE Huntington District was approached by residents and property owners in the town of Purgitsville, Hampshire County, West Virginia due to poor water quality conditions within various private wells. On 01 March 2021, Huntington District informed the Central Hampshire PSD that the beforementioned project was selected under the Section 571 Program for reimbursement and that the project is located within Baltimore District's area of responsibility (AOR). The project would be funded, in total, through a West Virginia Infrastructure and Jobs Development Council Grant (WVIJDC), a Small Cities Block Grant (SCBG), and a partnership with USACE, through the Section 571 Program. The cost for all components of the overall project would exceed the USACE Section 571 program limitations; therefore, the USACE will be responsible for the cost of a subset of the overall project, depicted in Figure 1 below.

1.3 Purpose and Need

The purpose of the proposed project would be providing safe drinking water to the residents of Purgitsville, West Virginia and the surrounding neighborhoods and towns. Currently, the residents of this area rely on private wells and cisterns for drinking water. Water quality tests have shown these sources, in parts, have elevated levels of iron, lead, arsenic , and explosive levels of methane (Appendix D: Private Well Testing Results). The need for this project is to provide safe and potable water to the residents of Purgitsville, West Virginia as well as the surrounding areas.

1.4 Coordination

In compliance with NEPA of 1969, as amended, coordination was conducted with Federal, State, and local resource agencies (Appendix C: Correspondence with Agencies). 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 Hampshire 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.

Cerrone Associates, a contractor for the NFS, coordinated with the West Virginia State Historic Preservation Office (SHPO) to ensure compliance with Section 106 of the National Historic Preservation Act (Appendix C: Correspondence with Agencies). Consultation letters were electronically mailed from

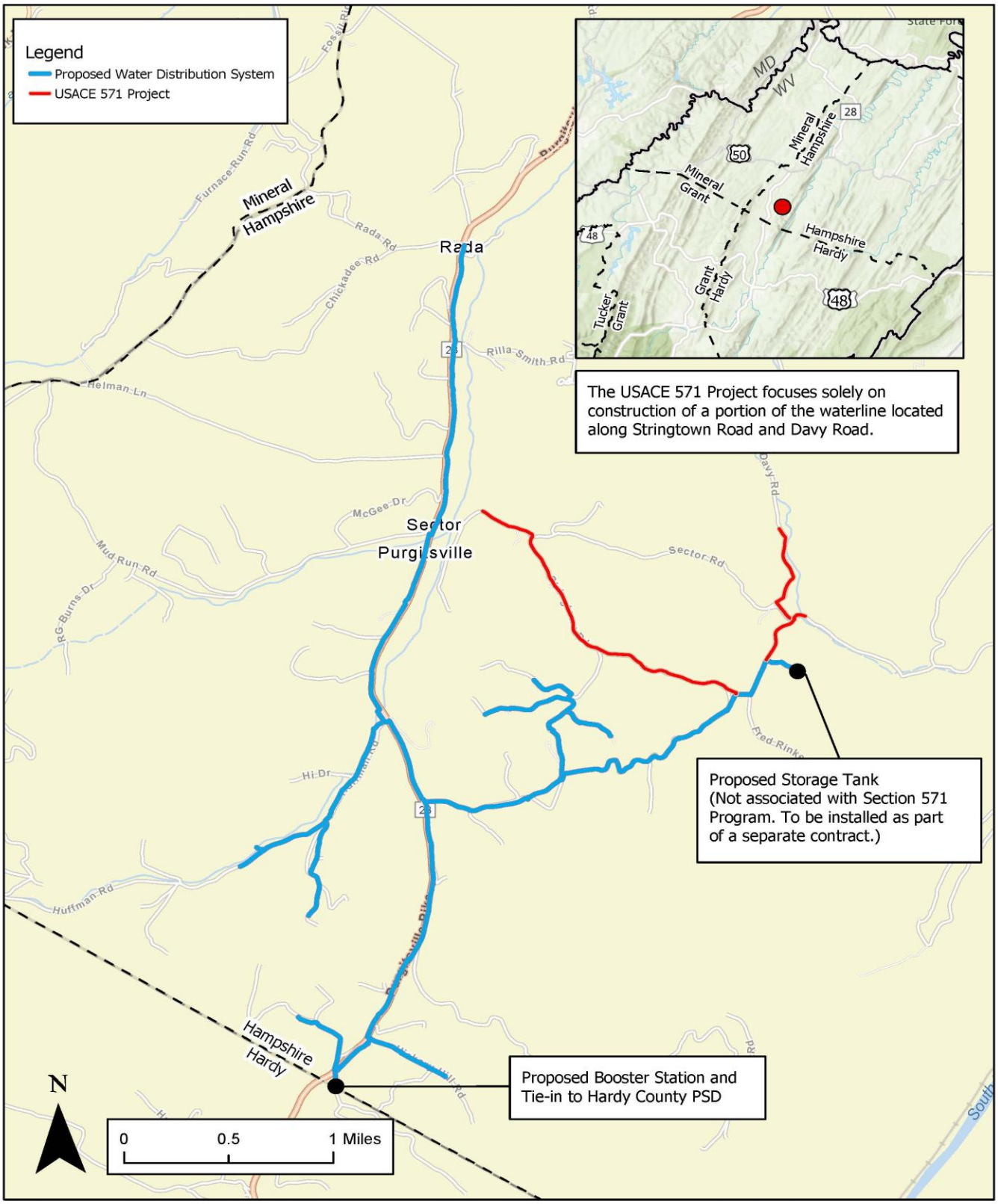

Figure 1 - Project Area Map

USACE Baltimore District on 30 September 2022 to federally-listed tribes with potential interest in the project area; however, no responses were received regarding the project.

A Phase I Archeological Survey was conducted and a report documenting the findings from 09 September 2020 was completed by Weller and Associates, Inc (Appendix C: Correspondence with Agencies). Agency coordination was conducted by Cerrone Associates through the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Consultation (IPaC) online system on 06 July 2022 and 09 January 2023. Coordination was also conducted through the West Virginia Division of Natural Resources Wildlife Resources Section (Appendix C: Correspondence with Agencies).

2. PROJECT DESCRIPTION

The project as a whole consists of one booster station, one 50,000 gallon water storage tank, and approximately 71,000 linear feet (lf) of PVC piping with sizes ranging from 2-inches to 6-inches in diameter. The network includes westward branches along Old Pine Church Road (County Route 220/15), Huffman Rd. (C.R. 220/3) and Phillip Vincent Drive. It would include eastward branches along Hickory Hill Rd., Old Mtn Rd. (C.R. 220/2), and Stringtown Rd. (C.R. 220/6). This project is isolated from the Hampshire PSD's existing distribution system and would be supplied by a connection to the Hardy County PSD's system, which would bill the Hampshire PSD via a master meter. Currently, there is no public infrastructure in this area. The project will be broken into two separate contracts or phases:

- Contract 1 – Installation of water lines and booster station.
- Contract 2 – Installation of a 50,000-gallon water storage tank.

Funding from USACE Baltimore District will only be provided for Contract 1. No funding will be allocated through the USACE Section 571 program for Contract 2, which would occur at a later phase and separate from Contract 1.

3. PROPOSED ACTION AND ALTERNATIVES

There were four distinct water source alternatives for the Central Hampshire PSD Water Extension Project that were analyzed, including the No Action Alternative.

3.1 Alternative 1 – No Action Alternative (NAA)

Under the NAA, USACE would not provide funding for the project. Large portions of the community would not be given access to safe public drinking water. Funding availability would be reassessed by the NFS, and the project scope would likely be reduced. Any resident not living along US Route 220 from the Hardy County line to the town of Rada would not be given access to public water. Health risks for these residents has the potential to be elevated as compared to those not drinking from their local sources, of which water quality tests have shown elevated levels of iron, lead, explosive levels of methane, and arsenic. This alternative was considered unacceptable due to the potential health hazards resulting from the local groundwater sources with elevated levels of contaminants. However, it is included in the alternatives analysis to establish a baseline condition for existing human and natural environment conditions, to allow comparison between future without and with project actions, and to determine potential environmental effects of proposed projects with alternatives.

3.2 Alternative 2 – City of Romney

This alternative involves tying into the City of Romney water system immediately outside of its water treatment plant located on the south end of the city (of Romney), along US Route 50 at the junction with South Branch River Road. The alternative includes installation of a 10.1-mile distribution line, as well as a 50-gpm booster station at the town of Junction, Hampshire County, West Virginia. Hampshire County is located within a remote section of West Virginia and poses logistical difficulties when attempting to tie-in to an existing water distribution system. The closest existing water distribution system is in the City of Romney. The City of Romney Water Treatment Plant is an approximate 1,000 gallon per minute (gpm), 2 million gallons daily (mgd) filtration plant that sources water with a 24-inch steel intake from the South Branch of the Potomac River, shortly downstream of the confluence with Mill Creek.

3.3 Alternative 3 – Hardy County PSD (Proposed Action Alternative)

The second source analyzed was Hardy County PSD, which would involve tying into the Hardy County PSD distribution system south of the project area, and immediately south of the county line. The alternative also includes purchasing water at a bulk rate from the Hardy County PSD. The Hardy County PSD maintains a large water distribution system of 115 miles throughout much of western Hardy County and is centered along US Route 220 from the Hampshire County border, continuing north to the southern Grant County line. An abundance of infrastructure is currently in place near the proposed project area and is adequately sized for additional demand. The Hardy County PSD purchases water at a bulk rate from the City of Moorefield, which is in the process of completing an expansion of its water production capabilities.

3.4 Alternative 4 – Water from Independent Source

An independent water source was the third alternative explored. This alternative involves providing for a water treatment plant along Mill Creek inside the project area and distributing water from it. Given the presence of elevated levels of iron in recent groundwater tests in the area, it is assumed that the facility would require treatment. The proposed plant would be located at the intersection of US Route 220 and Route 220/7 in the Rada area.

3.5 Proposed Action Alternative (PAA)

The PAA would consist of the installation of approximately 71,000 lf of PVC waterline, ranging from 2-inches in diameter to 6-inches in diameter, a 50-gpm booster station, and a 50,000-gallon water storage tank. The water would be purchased in bulk and supplied by the Hardy County PSD. The system would connect to the Hardy County PSD's system at the county line. The USACE's Section 571 Partnership would be committed to a portion of Contract 1, where the funding would cover the installation of a portion of the waterline and booster station. USACE would not provide funding for the 50,000 gallon water storage tank. The water transmission lines would be pressure tested and chlorinated to ensure sanitary drinking water reaches the residents. Public water would be brought to each customer's property and would include a water meter. It would be the responsibility of each customer to connect the waterline into their residence.

3.6 Evaluation of Alternatives

In a Preliminary Engineering Report prepared by Cerrone Associates, each water source alternative was analyzed with a life cycle cost analysis based on total capital costs and operations and maintenance costs

for a 20-year life. Additionally, a decision matrix was established for each alternative to consider non-monetary factors in arriving at the alternative that is best suited for the Central Hampshire PSD. The most effective way to establish a distribution system is through underground pipes that transmit water from an existing source and disperse it to the customers within the project area. Alternative 3, tying into the Hardy County PSD and purchasing water at a bulk rate allows for this distribution system to work most efficiently and is the preferred alternative. A life cycle cost analysis and decision matrix are located in Appendix E: Preliminary Engineering Report.

Based upon the alternatives considered above, the PAA, Alternative 3 has been determined to be the most desirable alternative for serving the properties within the proposed planning area in Hampshire County. The No Action Alternative would allow continued use of water through local wells and cisterns and potentially causing harm to human health. The potential environmental, cultural, and social impacts associated with the PAA and NAA are assessed below. Additionally, the NAA would not be supportive to environmental justice communities within the project area and would continue to negatively affect those communities.

4. ENVIRONMENTAL SETTING AND CONSEQUENCES

This section discusses the existing conditions by resource category and any potential environmental impacts associated with the NAA as well as with implementation of the PAA. See Appendix A: Project Area Maps.

4.1 Land Use

Land use in the immediate project is a mix between residential and agricultural. The soils consist predominantly of various silt loams with small pockets of stony loam and rock outcrops (Appendix B). The proposed waterlines would mainly be installed within county and state public road rights-of-way or previously disturbed areas. These previously disturbed areas include local residences, farmlands, and county and state public road rights-of-way. Original land contours would be restored upon completion of the installation. Permanent easements are needed for this project and will be acquired, where necessary, by the NFS in coordination with USACE Baltimore District's Real Estate Office. The NFS will be responsible for acquiring the necessary real estate interests, including permanent easements for the waterline and any temporary work area easements necessary for construction, prior to issuance of the solicitation for construction. No significant, adverse impacts to land use are anticipated from the PAA or the NAA.

4.2 Climate

Hampshire County, West Virginia experiences seasonal weather patterns with typical summer conditions of hot and humid days and winters being mild to moderate cold temperatures with snowfall. Fall is typically the driest season, while spring is typically wetter. Average high temperatures during the summer months of May to September are within the range of 70 to 85 degrees Fahrenheit, with periods of hot and humid conditions in late summer months. The coldest season lasts for three months from December to March with an average seasonal snowfall of 29-inches. Weather data available through the National Oceanic and Atmospheric Administration (NOAA) shows the coldest month is typically January with an average low of 19 degrees Fahrenheit. Average annual rainfall is 36-inches, with the spring being the wettest season. This information was averaged from the past decade (2012 to 2022).

Only short duration, minor discharges of carbon-based pollutants would occur during construction activities that could contribute to greenhouse gases. The NAA or PAA would not involve any activity that could significantly affect the environment regarding climate change and would not likely be influenced by future changes in climate. No significant, adverse impacts to climate or climate change are anticipated from the PAA or the NAA.

4.3 Terrestrial Habitat

The PAA would be constructed primarily on previously disturbed areas, including road rights-of-way. Removal of vegetation may occur within areas where open trenching and directional boring for the waterlines are implemented. The booster station work would occur on previously disturbed ground. Potential impacts to vegetation would be minimal and temporary. It is anticipated that no tree removal would be needed for the installation of the waterline and booster station; however, installation of the water storage tank (Contract #1, not associated with Section 571 Program) would require approximately 1-acre of mixed deciduous and mixed coniferous tree removal to install the access road and storage tank.

National Pollutant Discharge Elimination System (NPDES) Best Management Practices would be followed throughout the construction process. Areas would be returned to pre-construction conditions upon completion of construction activities through soil grading and grass seeding. Only minor, temporary impacts to existing vegetation during construction are anticipated to occur as part of the project funded by USACE; however, vegetation removal (approximately 1-acre) for the water storage tank and the associated access road would be permanent. No significant, long-term impacts to terrestrial habitat are anticipated as part of the PAA or the NAA.

4.4 Floodplains

Executive Order (EO) 11988 requires Federal agencies to consider the potential effects of their proposed actions to floodplains. To determine the PAA's potential floodplain impact, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) were reviewed for portions of the proposed project that would be located within the floodplain of Elm Lick Creek, Mill Run, and its tributaries. These are a part of the South Branch Potomac River watershed. FIRM maps reviewed include: 54027C0360C and 54027C0220C (FEMA, Nov 2002).

The local watershed for this project is the South Branch of the Potomac River (USGS HUC8 watershed 02070001) through the Mill Creek Stream. The project components are located within the Zone X and A. Zone X is an area of minimal flood hazard while Zone A is an area subject to inundation by the 1-percent-annual-chance flood event. Underground infrastructure such as waterlines would result in no adverse impact to floodplain areas as they would be buried and result in no change in grade or elevation. The proposed booster station and water storage tank would be located within Zone X. The PAA meets the intent of EO 11988. No significant, adverse impacts to floodplains are anticipated from the PAA or the NAA.

4.5 Prime and Unique Farmland

The Farmland Protection Policy Act (FPPA) requires Federal agencies to minimize the conversion of prime and unique farmland to non-agricultural uses. The majority of the project is along roads, and/or road rights-of-way. Due to this, the FPPA would not apply to this proposed project and no impacts on prime or

unique, statewide, or locally important farmland is expected to occur (USDA-NRCS, 1981). No significant, adverse impacts to prime and unique farmland are anticipated from the PAA or the NAA.

4.6 Aquatic Habitat/Surface Water Quality

The project is within the South Branch Potomac River Watershed. Part of the project area flows south toward Old Fields, West Virginia and reaches the South Branch Potomac River before it flows into "The Trough", a 6-mile-long wooded gorge situated along a section of the South Branch Potomac River. The northern portion of the project flows north toward the town of Junction, West Virginia and Romney, West Virginia. This portion flows into Mills Creek and joins the South Branch Potomac River just east of Romney, West Virginia. From the City of Romney, West Virginia, the South Branch Potomac River flows north approximately 16-miles to its confluence with the Potomac River, outside of the Town of Green Spring, West Virginia. There are no Sole Source Aquifers in the project area.

Implementation of the PAA would have minimal impact on aquatic habitat. As the project's footprint is over an acre, a general NPDES permit for the proposed waterline extension may be required due to the size of the construction area. Indirect impacts associated with run-off and erosion due to installation of waterlines may temporarily impact water quality in the area. Construction related impacts would be short-term and mitigated through the use of Best Management Practices (BMPs), such as placement of silt fences where needed throughout the project area to prevent runoff into adjacent surface waters. Based on the above, implementation of the PAA would not result in significant adverse short or long-term environmental impacts to aquatic habitat and water quality. Under the PAA, a temporary, minor discharge of pollutants may occur during construction. No aquatic impacts are anticipated. Aquatic habitat and surface water quality would remain the same under the NAA.

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, they are breeding, spawning, and feeding, cover and nursery areas for fish and are important nesting, migrating, and wintering areas for waterfowl and other wildlife. The US Fish and Wildlife Service (USFWS), National Wetland Inventory Maps (NWI) were reviewed for the proposed project area. NWI maps indicated that wetlands are located within the project area but would not be impacted by the project. A site reconnaissance field investigation was conducted to confirm no impacts to wetlands. The booster station site and water storage site are not located near any NWI wetlands. Various levels of design were considered and used to layout the water lines and associated infrastructure to avoid wetlands. NWI maps are included in Appendix B of this EA (NWI, 2021). No significant, adverse impacts to wetlands are anticipated from the PAA or the NAA.

4.8 Wild and Scenic Rivers

No designated National Wild or Scenic Rivers are present within the Project Area. Therefore, no impacts to these resources are anticipated as part of the PAA or the NAA.

4.9 Hazardous, Toxic, and Radioactive Waste (HTRW)

The U.S. Environmental Protection Agency's (USEPA) NEPA Assist database and the Resource Conservation and Recovery Act (RCRA) information database indicated the presence of two hazardous waste RCRA facilities within 6-miles of the project area. According to the RCRA info database, the facilities are the Mill Creek Saw Shop, and a West Virginia Division of Highways (WVDOH) Hardy County Spill Site. Mill Creek Saw Shop is located along US Route 220 between the towns of Burlington, West Virginia and Junction, West Virginia and is coded as Home and Garden Equipment Repair and Maintenance in the North America Industry Classification System (NAICS). The WVDOH Hardy County Spill Site is located approximately 1.5-miles northwest of the town of Old Fields, West Virginia along Old Fields Road. This site has not been inspected since 2012 and does not have a NAICS code (USEPA, 2020). The PAA is not anticipated to impact these RCRA facilities. No significant, adverse impacts to HTRW are anticipated from the PAA or the NAA.

4.10 Cultural, Historical, Archaeological and Tribal Resources

In accordance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), coordination with the West Virginia State Historic Preservation Office (SHPO) was conducted for the proposed project. On 23 August 2021, SHPO responded in a letter that the project would affect no architectural properties eligible for or included in the National Register of Historic Places, nor would it affect any listed cemetery. SHPO did request a Phase I Archaeological Survey for the project area. This was conducted and completed by Weller & Associates, Inc. of Wheeling, West Virginia. SHPO cleared the project in a letter dated 29 September 2021 (Appendix C).

The Osage Nation was copied in the initial response letter from SHPO. Official coordination with Tribal interests included letters sent on 07 October 2022 to the Delaware Nation, the Osage Nation, and the Shawnee Tribe; however, no responses were received from any of the tribal nations. No significant, adverse impacts to cultural, historical or archeological sites are anticipated from the PAA or the NAA.

4.11 Threatened and Endangered Species

USFWS Self Certification was conducted on 07 July 2022 through the USFWS IPaC website. This is in addition to correspondence with the West Virginia Field Office of the USFWS in April of 2020. According to the IPaC, as well as correspondence received from the USFWS West Virginia field office on 10 April 2020, there are four threatened, endangered, or candidate species known to exist within or in proximity to the study area; the Indiana Bat (*Myotis sodalis*), Northern Long-eared bat (*Myotis septentrionalis*) (endangered), Monarch Butterfly (*Danaus plexippus*), and Shale Barren Rock Cress (*Boechera serotina*). See Appendix C for agency correspondence.

Table 4-1. Status of endangered, threatened, or candidate species.

Species	**Status**
Indiana Bat (*Myotis sodalist)*	Endangered
Northern-Long Eared Bat (*Myotis septentrionalis)*	Endangered
Monarch Butterfly (*Danaus plexippus)*	Candidate
Shale Barren Rock Cress (*Boechera serotina)*	Endangered
Tricolored Bat (*Perimyotis subflavus)*	Proposed Endangered

Indiana Bat – The Indiana Bat generally forages in riparian bottomland, upland forest, and old fields or pastures with scattered trees. Roosting habitat consists primarily of live or dead hardwood tree species, which have exfoliating bark that provides space for bats to roost between the bark and the bole of the tree. In West Virginia, the USFWS considers all forested habitat containing trees greater than or equal to 5-inches in diameter at breast height to be potentially suitable summer roosting and foraging habitat for the Indiana Bat. The USFWS reviews the number of acres of potentially suitable foraging and roosting habitat based on the West Virginia landscape available to each Indiana Bat, versus the total acres of forest. On that basis, the USFWS determines that small projects would have a very small chance of resulting in direct or indirect effects to the Indiana Bat if projects are:

1. More than 10-miles from a known priority 1 or 2 Indiana bat hibernaculum,
2. More than 5-miles from a known priority 3 or 4 Indiana bat hibernaculum,
3. More than 2.5-miles from any known maternity roost, or more than 5-miles from summer detection sites where no roosts were identified,
4. Or any project that affects less than 17-acres of forested habitat and would not affect any potential hibernacula (USFWS, 2020).

Based on the criteria above, the PAA is not expected to have a negative effect on Indiana Bat.

Northern Long-Eared Bat (NLEB) – The NLEBs foraging habitat includes forested hillsides and ridges, and small ponds and streams. NLEBs are typically associated with large tracts of mature, upland forests with more canopy cover than is preferred by Indiana Bats. NLEBs choose roost trees based on suitability to retain bark or provide cavities or crevices, and this species is known to use a wider variety of roost types than the Indiana Bat. Males and non-reproductive females may also roost in cooler places like caves and mines (USFWS, 2020). The USFWS announced a final rule to reclassify the NLEB as endangered under the Endangered Species Act (ESA). The NLEB was officially listed as threatened in 2015, but now faces extinction due to the impacts of white-nose syndrome, a deadly disease that affects hibernating bats across North America. The rule takes effect on January 30, 2023. Although the status of the species has changed, no impacts are anticipated (USFWS, Nov 2022). Because the PAA will occur in disturbed public rights-of-ways it is unlikely to have a negative effect on this species, regardless of the new status.

Monarch Butterfly – The Monarch Butterfly is a candidate species and not yet listed nor proposed for listing. Individual Monarch Butterflies in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. This migration can take monarchs distances of over 3,000 km and last over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again (USFWS-ECOS, n.d.). The PAA does not contain critical habitat for the Monarch Butterfly, therefore it is unlikely that the PAA will have a negative effect on this species.

Shale barren rock cress – The shale barren rock cress is a biennial plant in the mustard family. The plant is only known to occur in West Virginia and Virginia and is mostly found on mid-Appalachian

shale Barrens of the Ridge and Valley Province of the Appalachian Mountains. This plant is highly habitat restricted and the number of individuals per population is low, most with fewer than 20 individuals. Shale barren habitat consists of an open, scrubby growth of pine, oak, red cedar and other woody species adapted to dry conditions. These habitats are mostly found on eroding slopes undercut by a stream (USFWS-ECOS, n.d.). The PAA does not contain the preferred habitat for this species so it is unlikely that the PAA will have a negative effect on the species.

Tri-colored Bat – As of September 13, 2022, the USFWS announced a proposal to list the Tri-colored Bat as engendered under the ESA. The Tri-colored Bat faces extinction due to the impacts of white-nose syndrome. The bat is one of the smallest and most common in North America and typically live around four to eight years. They're one of the first to emerge at dusk and feed on grain moths and beetles, suggesting that they hold important agricultural value. The bat faces numerous threats from habitat loss, impacts from wind turbines, and most detrimental, White-Nose Syndrome (Bat Conservation International, 2023). Because the PAA will occur in disturbed public rights-of-ways it is unlikely to have a negative effect on this species.

Under the PAA, the USFWS and West Virginia Division of Natural Resources Wildlife Resources Section does not anticipate that this project will adversely affect any threatened, endangered, or candidate species. Also, the NAA is not anticipated to have any impacts to threatened, endangered, or candidate species.

4.12 Air Quality

Hampshire 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, 2021). Under the PAA, emissions from construction equipment would occur during the construction period. Contractors would be required to operate all equipment in accordance with local, state, and Federal regulations. Any impacts would be short-term, localized, and would occur during construction activities. Impacts to air quality under the PAA would be temporary during construction and would be considered minor. The NAA is not anticipated to have any impacts on air quality.

4.13 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 residential areas. A common source of noise within the project area includes vehicular traffic. Noise associated with the PAA would be limited to heavy machinery and related sounds generated during construction. The noise associated with construction would be short in duration and would only occur during daylight hours. Construction noise would be similar to that of farm equipment and other small machinery used in the local area. The noise projections do not account for screening objects, such as trees, outbuildings or other objects that muffle and reduce the noise being emitted. The outdoor construction noise would be further muffled while residents are inside their homes. These are similar to typical neighborhood noise generated by gas powered lawnmowers in the local area, which could range from 90-95 dBA at three feet and 70-75 dBA at 100 feet. Residents being exposed to these noise levels would occur if and/or when residents are home

and outdoors. Due to daytime construction and the short and limited duration of elevated noise levels associated with the PAA, impacts from the noise to local residences would be temporary and minor. No impacts to noise levels would occur under the NAA.

4.14 Environmental Justice and Protection of Children

Executive Order 12898 requires Federal actions to address environmental justice in minority populations and low-income populations. According to the U.S. Census Bureau, the 2021 population estimate for Hampshire County was 20,302 and does not contain significant minority populations. The census indicates Hampshire County is 96.6% white and has a median household income of $48,528, compared with the median household income of $48,037 for the State of West Virginia. Individuals residing in the county below the poverty level is 13.7% compared to 15.8% statewide. The social impact of the proposed project is based on the quality of living in regard to having a public water distribution system within the project area reducing a threat to human health. Extending the water line to cover the project area would improve the water quality in the area by replacing private wells.

According to the Council of Environmental Quality (CEQ) Climate and Economic Justice Screening Tool (CEJST), Version 1.0 (November 22, 2022), one tract was identified as being disadvantaged because it meets more than one burden threshold and the associated socioeconomic threshold. Table 4-2 describes the CEQ Climate and Economic Screening tools thresholds and burdens.

Table 4-2 – CEQ Climate and Environmental Screen Tool		
Hampshire County, WV. Tract Area # 54027968400 Population: 4,030		
Burden Thresholds		
Health	**Percentile**	**Thresholds**
Heart Disease	**97th**	Above 90th Percentile
Share of people ages 18 years and older who have been told they have heart disease		
Water and Wastewater		
Wastewater Discharge	**92nd**	Above 90th Percentile
Modeled toxic concentrations at parts of streams within 500 meters		
Transportation		
Transportation Barriers	**94th**	Above the 90th Percentile
Average of relative cost and time spent on transportation		
Socioeconomic Threshold		
Low Income	**79th**	Above the 65th percentile
People in households where income is less than or equal to twice the federal poverty level, not including students enrolled in higher ed		

Additionally, the Central Hampshire PSD project qualifies for the Justice40 Initiative, which aims to deliver 40% of the overall benefits of climate, clean energy, affordable and sustainable housing, clean water, and other investments to disadvantaged communities that are marginalized, underserved, and overburdened by pollution. One hundred percent of USACE funds being used through the Section 571 program for this project will help to improve water quality in disadvantaged communities as part of the PAA. The NAA would continue to allow poor water quality to impact public health and safety in disadvantaged communities.

Executive Order 13045 requires each Federal agency "to identify and assess environmental risks and safety risks that may disproportionately affect children" and "ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." This EO was prompted by the recognition that children, still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than adults. The waterline extension would environmentally improve the lives of all residents of Purgitsville, West Virginia and surrounding neighborhoods. Implementation of the PAA would provide residents, including children, with safe, quality public drinking water, thereby improving the living conditions in the service area. No homes or buildings would be adversely impacted by the proposed project; therefore, the PAA meets the directive of EO 12898 and EO 13045 by avoiding any disproportionately high adverse human health or environmental effects on minority or low-income populations or children. The NAA results in adults and children potentially being exposed to unsafe drinking water as they drink from private wells and cisterns, some of which have been proven to have elevated levels of lead, arsenic and methane.

4.15 Aesthetics

The project area is a rural community consisting primarily of residential properties and small commercial and agricultural properties. Temporary disturbance of the local aesthetics would be anticipated during construction of the PAA waterline extension; however, after construction the excavated areas would be restored to original conditions. The booster station and water storage tank would be permanent, above ground structures. These structures would not obscure sight lines nor would they drastically impact the aesthetics of the surrounding area. The booster station's structure is a small, 12-foot by 10-foot single story structure, which would be located adjacent to a commercial site. The water storage tank would be 20-feet in diameter and approximately 25-feet tall. It would be constructed along a wooded hillside. The surrounding tree canopy would greatly obscure the storage tank and access road. The proposed tank site is secluded and well below the maximum elevation of the hill and the access road would bend slightly as it follows the contours of the hillside. Therefore, the tank would greatly be obscured from the road, and it would not alter the sightline or crest of the hill. No residents viewsheds would be impeded by either structure. Aesthetics would remain unchanged if the NAA was implemented.

4.16 Transportation and Traffic

The majority of the proposed waterlines would be within public road rights-of-way. Construction of the PAA along road rights-of-way would involve some delays and potential detours in the normal traffic flow. The West Virginia Department of Transportation reports that traffic flow along Federal Highway 220 in the Purgitsville area averages 1,718 Annual Average Daily Traffic (AADT). All other public roads in the project area report less than 99 AADT. If detours would occur, they would be relatively minor and temporary in nature. Construction on or near road surfaces would comply with standard traffic controls to minimize traffic disruptions and avoid public safety issues (WVDOT, 2020). No significant, adverse impacts to transportation or traffic are anticipated from the PAA or the NAA.

4.17 Health and Safety

The PAA has been designed to supply safe, reliable, drinking water to the residents of Purgitsville, West Virginia and the surrounding neighborhoods. Private wells and cisterns have been tested and proven to contain elevated levels of iron, lead, methane, and arsenic. The PAA is anticipated to have a long-term beneficial impact on the health of residents in the project area. Under the NAA, residents would continue

to rely on private water sources, which pose health concerns that could cause minor to potentially significant negative health impacts on the community.

5.0 SUMMARY

Table 5.1 summarizes the level of compliance of the proposed action with environmental protection statutes and other environmental regulations. Based on the evaluation of environmental effects described in Section 4, there are no significant negative impacts associated with the PAA and a Finding of No Significant Impact (FONSI) has been prepared.

Table 5.1: Compliance of the Proposed Action with Environmental Protection Statutes and Other Environmental Requirements

Federal Statutes, Executive Orders (EOs), and Memoranda	**Level of Compliance**
Archeological Resources Protection Act	Full
Clean Air Act	Full
Clean Water Act	Full
Coastal Barrier Resources Act	N/A
Comprehensive, Environmental Response, Compensation and Liability Act	Full
Endangered Species Act	Full
Executive Order 11988 Floodplain Management	Full
Executive Order 11990 Protection of Wetlands	Full
Executive Order 12898 Environmental Justice in Minority Populations and Low-Income Populations	Full
Executive Order 13045 Protection of Children	Full
Farmland Protection 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
Resource Conservation and Recovery Act	Full
River and Harbors Act	N/A
Quiet Communities Act	Full

Toxic Substances Control Act	N/A
Wild and Scenic Rivers Act	N/A

6.0 REQUIRED COORDINATION

6 .1 Agencies Contacted

Direct coordination with USACE Baltimore District, West Virginia Department of Natural Resources, U.S. Department of Natural Resources Conservation Service (NRCS), West Virginia SHPO, and USFWS was completed. Agency correspondence is included in Appendix C.

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.

6.3 CONCLUSION

The Central Hampshire PSD is proposing to extend its waterline infrastructure. By providing safe and reliable drinking water, the proposed project is anticipated to have long-term beneficial impacts on health for residents in the project area and surrounding area by eliminating use of private wells and cisterns, of which test results showed elevated levels of iron, lead, methane, and arsenic. No significant, adverse, short-term, or long-term impacts have been identified as a result of implementation of the PAA. The majority of the proposed project would take place on previously disturbed land. Undisturbed land has been surveyed in coordination with WVSHPO. Beneficial health impacts would be realized with project implementation. Effects associated with construction would be minor and temporary. BMPs would be implemented during construction to minimize impacts to residents and the environment. Therefore, the PAA would not be expected to have significant impacts on the human or natural environment.

7.0 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

Cerrone Associates Inc.
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8.0 REFERENCES

Bat Conservation International. (2023). The Tri-Colored Bat. Volume 37, Issue 2. https://www.batcon.org/article/tri-colored-bat/. *Accessed 09 Jan 2023*

Council of Environmental Quality. Climate and Economic Justice Screening Tool. (CEJST, 22 Nov 2022). https://screeningtool.geoplatform.gov/en/#10.26/39.2865/-78.8581. *Accessed 08 Dec 2022.*

Federal Emergency Management Agency (FEMA) (Nov 2002). Flood Insurance Rate Map #54027C0360C & #54027C0220C.Hampshire County, West Virginia. Retrieved from FEMA Flood Map Service Center | Search By Address. https://msc.fema.gov/portal/search#searchresultsanchor *Accessed 24 August 2022.*

National Oceanic and Atmospheric Administration (NOAA) (2012-2022). NOWData – NOAA Online Weather Data. Baltimore Area. Retrieved from National Weather Service – Weather Forecast Office. https://www.weather.gov/wrh/climate?wfo=lwx *Accessed 26 August 2022.*

Occupational Safety and Health Administration (OSHA) (n.d.) Occupational Noise Exposure - Overview | Occupational Safety and Health Administration (osha.gov) *Accessed 11 Oct 2022.*

United States Census Bureau (Jul 2021). Quickfacts – Hampshire County, West Virginia. https://www.census.gov/quickfacts/hampshirecountywestvirginia *Accessed 26 August 2022.*

United States Department of Agriculture, Natural Resources Conservation Service (NRCS) (n.d.). Farmland Protection Policy Act (FPPA). https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/ *Accessed 23 August 2022.*

United States Environmental Protection Agency (USEPA) (2019 March). Mill Creek Watershed Report. Hampshire County, West Virginia. Retrieved from EPA Waters GeoViewer. https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=ada349b90c26496ea52aab66a092593b *Accessed 26 August 2022.*

USEPA (2020). RCRA Sites of Hampshire County, West Virginia. Retrieved from EPA NEPAssist. https://nepassisttool.epa.gov/nepassist/nepamap.aspx *Accessed 25 August 2022.*

USEPA (2022). Green Book National Area and County-Level Multi-Pollutant Information. Green Book National Area and County-Level Multi-Pollutant Information | US EPA *Accessed August 2022.*

USEPA (n.d.) Outdoor Air Quality Data. Hampshire County, West Virginia. Retrieved from EPA AirData Air Quality Monitors Interactive Map. https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=5f239fd3e72f424f98ef3d5def547eb5&extent=-146.2334,13.1913,-46.3896,56.5319 *Accessed 25 August 2022.*

United States Fish and Wildlife Service (USFWS)-Environmental Conservation Online System (ECOS). (n.d.) Monarch Butterfly. https://ecos.fws.gov/ecp/species/9743 and Shale Barren Rock Cress. https://ecos.fws.gov/ecp/species/6018. *Accessed 12 Oct 2022*.

USFWS (2020). West Virginia Field Office Response letter, April 8, 2020.

USFWS, National Wetlands Inventory (NWI) (2021). National Wetlands Inventory – Surface Waters and Wetlands. https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/ *Accessed 26 August 2022.*

USFWS, (29 Nov 2022). *News Release.* "U.S. Fish and Wildlife Service Reclassifies Northern Long-eared Bat as Endangered under the Endangered Species Act". https://www.fws.gov/sites/default/files/documents/FINAL.FWS_.NEWS%20RELEASE.NLEB%20final%20rule.11252022.pdf. *Accessed 06 January 2023.*

West Virginia Department of Transportation (WVDOT) Division of Highways (2020). Purgitsville, WV Annual Average Daily Traffic. Retrieved from Planning Division – Transportation Modeling & Analysis Unit. https://gis.transportation.wv.gov/aadt/# *Accessed 24 August 2022.*

APPENDIX A

Project Area Maps

APPENDIX B

Wetlands, Floodplain, and Soil Maps

APPENDIX C

Correspondence with Agencies

APPENDIX D

Private Well Testing Results

APPENDIX E

Preliminary Engineering Report