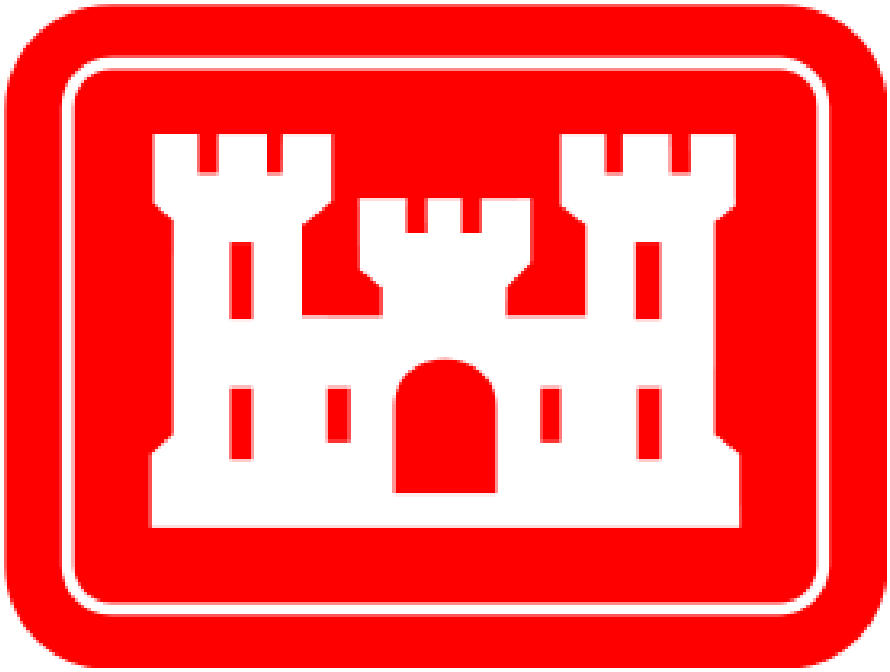
Draft Environmental Assessment
Section 340 Crab Creek
Water Treatment Plant Improvements Project
Mason County, West Virginia



U.S. Army Corps of Engineers
Huntington District
Huntington, West Virginia
June 2025

Environmental Assessment
Section 340 Crab Creek
Water Treatment Plant Improvements Project
Mason County, West Virginia
Executive Summary

The Mason County Public Service District (PSD) is proposing to design and construct a water treatment plant (WTP) improvements project at the existing Crab Creek WTP located in Mason County, West Virginia. The WTP was constructed in 1980 and is in need of improvements due to aging and/or deteriorating components. The improvements as proposed would address the unsanitary and unsafe conditions associated with the WTP.

The Proposed Action Alternative would consist of improvements to the existing Crab Creek WTP including installation of four (4) new pressure filters, removal of the existing filters, addition of four (4) new garage doors to the treatment building, installation of a new storage building, construction of a concrete walkway around the treatment building and a concrete loading zone in front of the new garage doors, a new gravel entrance road, and expanding the site fencing. In addition, there would be various internal electrical, plumbing, and Heating, Ventilation, and Air Conditioning (HVAC) unit upgrades to the WTP.

The proposed project is a partnership agreement between the PSD and the U.S. Army Corps of Engineers (USACE), established under the authority of Section 340 of the Water Resources Development Act of 1992 (Public Law 102-580), as amended, which provides authority for the USACE to establish a program to provide environmental assistance to Non-Federal entities in southern West Virginia. This law provides design and construction assistance for water-related environmental infrastructure projects to Non-Federal interests in southern West Virginia. Funding, as established under Section 340, shall be shared 75% Federal and 25% Non-Federal (State and Local).

This Environmental Assessment is prepared pursuant to the National Environmental Policy Act (42 USC § 4321 et seq.), Fiscal Responsibility Act (42 USC § 4331 et seq.), and USACE Procedures for Implementing NEPA (ER-200-2-2).

SECTION 340 CRAB CREEK
WATER TREATMENT PLANT IMPROVEMENTS PROJECT
MASON COUNTY, WEST VIRGINIA
TABLE OF CONTENTS

List of Tables

List of Appendices

The brief and concise nature of this document is consistent with USACE Procedures for Implementing NEPA (ER 200-2-2) to reduce paperwork and delay by eliminating duplication with existing environmental documentation, incorporating pertinent material by reference, and by emphasizing interagency cooperation. The majority of data collection and analysis in this document was performed by The Thrasher Group, Inc. (Thrasher) in conjunction with the USACE. In addition, this document is consistent with the Fiscal Responsibility Act (42 USC § 4336a(e)(2)) with the EA not exceeding 75 pages, not including citations or appendices.

1.0 PROJECT DESCRIPTION

1.1 Project Background

The Public Service District (PSD) is located in Mason County, West Virginia and serves a total of approximately 5,600 water customers in its existing service area. The Crab Creek water treatment plant (WTP) was constructed in 1980 and currently provides service to Crab Creek, Ashton, and surrounding areas of Mason County, West Virginia. Demand on the Crab Creek system increased after the Crab Creek WTP began serving the Ashton system after the Ashton system went out of service.

1.2 Purpose, Need, and Authorization

The purpose of the proposed improvements is to address the need for repairs at the Crab Creek WTP and improve the quality of service provided to customers in Crab Creek, Ashton, and surrounding areas of Mason County, West Virginia. The project is needed because the Crab Creek WTP has been experiencing issues due to aging infrastructure, resulting in interruptions in operations and services. In addition, rust has resulted in holes in the various treatment system components.

The proposed project is a partnership agreement between the PSD and the USACE, established under the authority of Section 340 of the Water Resources and Development Act (WRDA) of 1992 (Public Law 102-580), as amended, which provides authority for the USACE to establish a program to provide environmental assistance to Non-Federal entities in southern West Virginia. This law provides design and construction assistance for water-related environmental infrastructure projects to Non-Federal interests in southern West Virginia. Funding, as established under Section 340, shall be shared 75% Federal and 25% Non-Federal (State and Local).

This Environmental Assessment (EA) is prepared pursuant to the National Environmental Policy Act (42 USC § 4321 et seq.), Fiscal Responsibility Act (42 USC § 4331 et seq.), and USACE Procedures for Implementing NEPA (ER-200-2-2).

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action Alternative (PAA)

The PAA would consist of improvements to the existing Crab Creek WTP, including installation of four (4) new pressure filters, removal of the existing filters, four (4) new garage doors to the treatment building, installation of a new storage building, construction of a concrete walkway

around the treatment building and a concrete loading zone in front of the new garage doors, a new gravel entrance road, and expanding the site fencing. In addition, there would be various internal electrical, plumbing, and Heating, Ventilation and Air Conditioning (HVAC) unit upgrades to the WTP.

2.2 No Action Alternative (NAA)

Under the NAA, the USACE would not provide funding for the project and the PSD would not improve the Crab Creek WTP. The Crab Creek WTP would continue to experience interruptions in operations and services and aging and/or deteriorating components would not be addressed. As a result, current health and safety risks would not be addressed. However, the NAA is included in the alternatives analysis to establish a baseline condition for existing human and natural environmental conditions, to allow comparison between future without and with project actions, and to determine potential environmental effects of proposed with project alternatives.

3.0 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.

The USACE took context and intensity into consideration in determining potential impact significance. The intensity of a potential impact is the impact's severity and includes consideration of beneficial and adverse effects, the level of controversy associated with a project's impacts on human health, whether the action establishes a precedent for future actions with significant effects, the level of uncertainty about project impacts and whether the action threatens to violate federal, state, or local laws established for the protection of the human and natural environment. The severity of an environmental impact is characterized as none/negligible, minor, moderate, or significant, and may be adverse or beneficial. The impact may also be short-term or long-term in nature.

- None/negligible – No measurable impacts are expected to occur.
- Minor – A measurable effect to a resource. A slight impact that may not be readily obvious and is within accepted levels for permitting, continued resource sustainability, or human use. Impacts should be avoided and minimized if possible but should not result in a mitigation requirement.
- Moderate – A measurable effect to a resource. An intermediate impact that may or may not be readily obvious but is within accepted levels for permitting, continued resource sustainability, or human use. Impacts may or may not result in the need for mitigation.
- Significant – A measurable effect to a resource. A major impact that is readily obvious and is not within accepted levels for permitting, continued resource sustainability, or human use. Impacts likely result in the need for mitigation.
- Adverse – A measurable and negative effect to a resource. May be minor to major, resulting in reduced conditions, sustainability, or viability of the resource.

- Beneficial – A measurable and positive effect to a resource. May be minor to major, resulting in improved conditions, sustainability, or viability of the resource.
- Direct – Caused by the action and occur at the same time and place.
- Indirect – Caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable.
- Short-Term – Temporary in nature and does not result in a permanent long-term beneficial or adverse effect to a resource. For example, temporary construction-related effects (such as, an increase in dust, noise, traffic congestion) that no longer occur once construction is complete. May be minor, significant, adverse, or beneficial in nature.
- Long-Term – Permanent (or for most of the project life) beneficial or adverse effects to a resource. For example, permanent conversion of a wetland to a parking lot. May be minor, significant, adverse, or beneficial in nature.

The USACE used quantitative and qualitative analyses, as appropriate, to determine the level of potential impact from proposed alternatives. Based on the results of the analyses, this EA identifies whether a particular potential impact would be adverse or beneficial, and to what extent.

3.1 Project Location

The project area is centered around the communities of Crab Creek, Ben Lomond, and Ashton in Mason County, West Virginia. The Crab Creek WTP is located off of Riverview Drive on the western side of State Route 2 (Huntington Road) and eastern side of the Ohio River. Figure 1 shows the proposed project limits relative to roads and principal surface features (see Appendix A for more maps). The proposed improvements would be limited to the Crab Creek WTP's existing footprint.

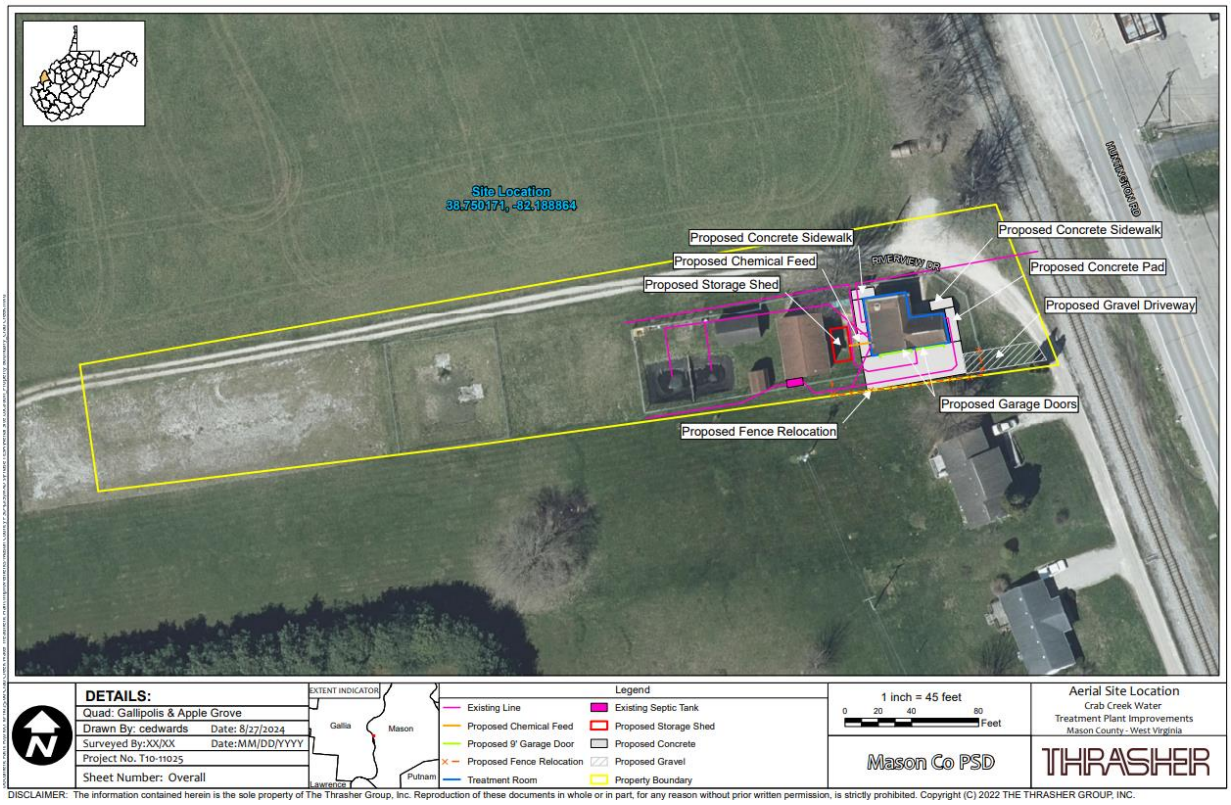


Figure 1 – Project Location

3.2 Land Use

Land use within the project area is primarily rural and includes residential and commercial development (see Appendix A for additional details on land use). The proposed improvements would be limited to the Crab Creek WTP's existing footprint which is previously disturbed and routinely maintained. This land is already owned by the PSD; therefore, there would be no easements or land acquisition required. Minimal vegetation clearing may occur throughout the duration of the project. However, areas disturbed by construction activities would be reseeded with a native vegetation seed mix as appropriate. The proposed acreage of the project area is less than one (1) acre. Should excess material or debris need to be removed from the site, it would be disposed of in accordance with local, state, and Federal laws. No land use changes would occur as part of the PAA.

The NAA would have no known indirect or direct impacts on land use.

3.3 Climate

The climate in Mason County, West Virginia is typical of a humid continental climate. Seasonal weather patterns consist of four distinct seasons. Summers are hot and humid, winters are cold and snowy, and spring and fall tend to be milder with some rain showers. July is typically the

hottest month of the year with an average high temperature of 86 degrees Fahrenheit. The coldest month is January with an average low temperature of 23 degrees Fahrenheit. Average annual precipitation and snow is 41 inches and 9 inches, respectively.

The PAA would have a minimal impact on climate, and only for a short duration. However, no significant direct or indirect impact to climate would be anticipated to occur due to the PAA. It should also be noted that weather-related changing conditions can threaten water supply, so by improving the Crab Creek WTP, the PSD would be enhancing its resilience to changing conditions. Furthermore, maintaining and providing adequate water infrastructure within the constraints imposed by primary project purposes helps reduce stormwater runoff and soil erosion, mitigates air pollution, and moderates temperatures.

The project area is located within the Long Run-Ohio River watershed, which is part of the larger Ohio River Basin (ORB). Although the modeled climatic predictions vary across the ORB and are somewhat uncertain (especially in the latter portion of the 21st century), much of the basin appears likely to experience significantly higher high-flow events and in some cases, lowered low-flow events, interspersed with periods of drought. In the face of changing land use and energy development, and where these projected air temperature and flow changes deviate more than 25% from the current levels, it is likely that fish and mussel populations, wetland complexes, reservoir fisheries, trans-boundary organisms such as migratory fish and water body-dependent birds, and human use and safety will also be noticeably impacted.

Institute for Water Resources (IWR) climate modeling results indicate that climatic conditions in the ORB will remain largely within the mean ranges of precipitation and temperatures, with the exception of a gradual warming that has been experienced between 1952 and 2001. Summer highs and winter lows between 2011 and 2040 are expected to remain generally within what has been observed over that historic period, but extreme fluctuations (record temperatures, rainfall, or drought) are expected to become more likely than before. After 2040, temperatures may rise at one degree per decade through 2099. Likewise, there may be significant fluctuations in precipitation with associated increases or decreases in river flow on an annual mean basis and a seasonal maximum and minimum basis. During 2070-2099, the annual maximum river flow increases substantially across Pennsylvania, West Virginia, Ohio, Indiana, and Illinois. It is anticipated there would be some increases between 2040 and 2070 in precipitation and river flow in the base period during the spring season; however, the fall season will bring significant rainfall and increased river flows by as much as 35% to 50% more during the base period.

The NAA or PAA would not involve any activity that could significantly affect the environment in regard to climate and the project would not likely be influenced by future changes in climate. Therefore, no significant adverse impacts, neither direct nor indirect, to climate would occur as a result of the PAA or NAA. However, under the NAA the PSD would not be enhancing its resilience to future changes in conditions.

3.4 Terrestrial Habitat

Habitat and vegetation within and surrounding the project area consists of forested areas, herbaceous growth, open fields, riparian areas along the Ohio River, regularly maintained lawns,

previously disturbed areas, and permanent surfaces. The proposed improvements would be limited to the Crab Creek WTP's existing footprint which is routinely maintained. Minimal vegetation clearing may occur throughout the duration of the project. However, areas disturbed by construction activities would be reseeded with a native vegetation seed mix as appropriate.

Construction of the concrete walkway surrounding the Crab Creek WTP, the new concrete loading zone, and the new gravel entrance would represent permanent impact to terrestrial habitat. These areas are routinely maintained and/or previously disturbed; therefore, impacts to terrestrial habitat from construction of the walkway, loading zone, and gravel entrance would be minor. No tree clearing activities would occur.

Only minor and/or temporary impacts to existing vegetation during construction are anticipated to occur. Therefore, no significant long-term direct or indirect impacts to terrestrial habitat are anticipated as part of the PAA.

As selection of the NAA would entail no changes to the project area, there are no impacts, neither direct nor indirect, to terrestrial habitat anticipated as part of the NAA.

3.5 Floodplains

E.O. 11988 requires Federal agencies to consider the potential effects of their proposed actions to floodplains. In order to determine the PAA's potential floodplain impact, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) were reviewed for the proposed project (https://www.fema.gov/floodplain-management/flood-zones). The Crab Creek WTP is located within Zone X (0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile). This zone is not considered a Special Flood Hazard Area (SFHA).

No construction activities would occur within the floodplain or regulatory floodway. Therefore, a floodplain development permit would not be required. The PAA meets the intent of E.O. 11988 and no significant long-term direct or indirect impacts to floodplains are anticipated to occur from the PAA.

As no construction-related activities would be implemented, no additional impacts, neither indirect nor direct, to floodplains are anticipated to occur from the NAA.

3.6 Prime and Unique Farmland

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. The FPPA includes prime farmland, unique farmland, and land of statewide or local importance. There are four (4) soil units within the project area that are considered to be prime farmland. The majority of the Crab Creek WTP's existing footprint is located on prime farmland soils; however, the property is not being actively used as agriculture land.

The proposed improvements are limited to the Crab Creek WTP's existing footprint which is previously disturbed and routinely maintained. The USACE has determined that due to the entirety of the project area being pre-disturbed, no impacts on prime or unique, statewide, or

locally important farmland is expected to occur as part of the PAA. On 24 September 2024, the Natural Resources Conservation Service (NRCS) determined that the project does not impact prime or other important farmland and is therefore not subject to the FPPA.

No impacts, direct or indirect, to prime farmland, or farmland of statewide, or local importance would occur as a part of the NAA.

3.7 Aquatic Habitat/Water Quality

The project area is located within the Long Run-Ohio River Watershed (HUC 050901010103), and the Crab Creek WTP is located along the Ohio River. This portion of the Ohio River (classified as from Racine Lock and Dam to Robert C. Byrd Lock and Dam) is included in the West Virginia Department of Environmental Protection's (WVDEP) 303(d) list for impaired streams and lake assessment units. Impaired parameters include polychlorinated biphenyls (PCBs) in fish tissue, and the presence of *Escherichia coli* (*E. coli*). Implementation of the PAA would not result in new discharge of pollutants and is expected to have a positive effect on drinking water by improving the Crab Creek WTP.

There would be no stream crossings required for the project, nor would there be any in-water work. A permit from the USACE Regulatory Branch would not be required. Furthermore, a Department of the Army permit pursuant to Section 10 of the Rivers and Harbors Act, Section 404 permit, and associated Section 401 permit under the Clean Water Act would not be required prior to construction. If conditions change and it is determined that waters may be impacted, coordination with the USACE Huntington District Regulatory Branch will be required and all applicable permits shall be obtained by the non-Federal Sponsor.

Best management practices (BMPs) would be implemented throughout the project area to prevent the discharge of sediment and sediment-laden water into downstream aquatic features, including the Ohio River. BMPs to be used during construction would include, but not be limited to, silt/filter sock or belted silt fence. In addition, no fuel will be stored on site for construction equipment, and floor drains inside the WTP will be protected with appropriate measures. A National Pollutant Discharge Elimination System (NPDES) permit would not be required as construction activities would disturb less than one (1) acre. Based on the above, the PAA is anticipated to have beneficial direct and indirect impacts to drinking water quality. There are no negative long-term direct or indirect impacts to aquatic habitat or water quality anticipated as part of the PAA

The NAA would have no known positive impacts on aquatic habitat/water quality. Under the NAA, the existing conditions would remain unchanged, and the Crab Creek WTP would continue to operate as is. Therefore, the NAA could adversely impact drinking water quality.

3.8 Wetlands

E.O.11990 requires Federal agencies to minimize the destruction, loss, or degradation of wetlands. Sections 404 and 401 of the Clean Water Act provide the statutory authority for work in special aquatic sites. A review of the National Wetlands Inventory (NWI) indicated there are no wetlands within the project area; however, there are two (2) man-made treatment ponds used

by the facility for backwash and sewage treatment and filtration. The treatment ponds would not be impacted by construction activities.

No impacts, neither indirect nor direct, to wetlands are anticipated as part of the PAA or NAA.

3.9 Wild and Scenic Rivers

No designated State Wild or Scenic Rivers are present within the Project Area. Therefore, no impacts, neither indirect nor direct, to these resources are anticipated as part of the PAA or NAA.

3.10 Hazardous, Toxic, and Radioactive Waste (HTRW)

A Phase I Environmental Site Assessment (ESA) for the project was performed in order to identify environmental conditions and the potential presence of hazardous, toxic, and radioactive waste (HTRW) within the project area. The Phase I ESA identified one (1) recognized environmental condition (REC), one (1) *de minimis* condition, six (6) business environmental risks, and one (1) non-ASTM scope finding. No other RECs or risks were identified. No impacts regarding HTRW are expected to occur as part of the PAA. After review of the Phase I ESA, USACE Huntington District HTRW staff determined that no further investigation or action is required. A clearance memorandum was signed by USACE Huntington District HTRW staff on 18 March 2025 and is included in Appendix B.

The NAA would not result in ground disturbing activities. Therefore, no direct or indirect construction-related HTRW impacts would be associated with the NAA.

3.11 Cultural Resources

The National Historic Preservation Act (NHPA), at 54 United States Code (U.S.C.) parts 300101-307108, and the implementing regulations at 36 C.F.R. part 800, require Federal agencies to take into account the effect of their actions on historic properties, while Section 106 of the NHPA (54 U.S.C. part 306108), requires Federal agencies to initiate an evaluation and consultation if the agency determines that its actions are an undertaking.

Thrasher submitted the project to the West Virginia State Historic Preservation Office (SHPO) for review on 9 August 2022. On 31 August 2022, the SHPO submitted the following comments:

(1) “The buildings in the area of potential effects for this project do not show features that indicate eligibility for inclusion in the National Register of Historic Places. Based on aerial photography, there appear to be no eligible buildings in the indirect area of potential effects for the project.”
(2) “A search of our records indicates that there are no previously recorded archaeological resources located within the project area… Therefore, it is unlikely that significant archaeological resources will be encountered during the proposed ground disturbing activities. In our opinion, no archaeological historic properties will be affected by the proposed project.”

The USACE Huntington District Archaeologist has reviewed the Undertaking and agrees with the determination that the Undertaking will have no potential to effect cultural resources. No

further coordination with the SHPO is required. Coordination with Tribal nations is ongoing and will be completed prior to issuance of the FONSI.

If unanticipated archaeological deposits or human remains are discovered during construction, all work near the location of the discovery shall cease and the Project Manager and Huntington District Archaeologist shall be contacted immediately. The West Virginia State Police, the Mason County Coroner, and SHPO must also be notified immediately if human remains are discovered. Unanticipated discoveries of, or impacts to, historic properties shall be dealt with in accordance with 36 CFR 800.13.

The NAA would have no known beneficial or adverse impacts on cultural resources.

3.12 Threatened and Endangered Species

According to the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool, the project area is within the range of the Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*; proposed endangered), clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), longsolid (*Fusconaia subrotunda*), pink mucket (pearlymussel; *Lampsilis abrupta*), round hickorynut (*Obovaria subrotunda*), sheepnose mussel (*Plethobasus cyphyus*), snuffbox mussel (*Epioblasma triquetra*), and monarch butterfly (*Danaus plexippus*; proposed threatened).

In a letter dated 25 September 2024, the West Virginia Division of Natural Resources (WVDNR) indicated that the project area is located within the buffer of one (1) bat capture (2016 capture 3-mile buffer) and is approximately 600 ft west of a sensitive habitat (Ohio River).

No tree clearing would be required, nor would there be any stream crossings or in-water work. BMPs would be implemented throughout the action area to prevent the discharge of sediment and sediment-laden water into downstream aquatic features, including the Ohio River. BMPs to be used during construction would include, but are not limited to, silt/filter sock or belted silt fence. Construction activities would be limited to the Crab Creek WTP's existing footprint, and areas disturbed by construction activities would be reseeded with a native vegetation seed mix as appropriate. Therefore, the Huntington District has determined the project would have no effect on the aforementioned Federally listed species.

No further coordination under Section 7 of the Endangered Species Act is required. Coordination under the Fish and Wildlife Coordination Act with the U.S. Fish and Wildlife Service (USFWS) is ongoing and will be completed prior to issuance of the FONSI.

The NAA would have no known beneficial or adverse impacts on threatened or endangered species.

3.13 Air Quality

In October 2020, the entire State of West Virginia was designated as meeting all of the United States Environmental Protection Agency's (USEPA) health-based National Ambient Air Quality Standards (NAAQS) for the first time since 1978, when the initial nonattainment designations were made under the 1970 Clean Air Act. In addition, according to the USEPA EnviroMapper,

Mason County, West Virginia is in attainment for all criteria air pollutants. Minor, short-term emissions may occur during construction due to construction equipment used for the proposed improvements to the Crab Creek WTP. Contractors would operate all equipment and machinery in accordance with local, state, and Federal regulations. Water spraying would be utilized during construction to control dust, if necessary.

GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxides (NOx) are considered pollutants to air quality. The PAA would generate a variety of GHG emissions throughout its life cycle, spanning from construction to operations and maintenance (O&M) of the project. The PAA includes various improvements to the Crab Creek WTP, and minor discharges of carbon-based pollutants would occur during construction activities that could contribute to GHG. It is anticipated that the majority of GHG emissions from the project would be generated during construction activities. Therefore, direct and indirect GHG emissions from the project would be minor and temporary in nature. In addition, all equipment would comply with Federal vehicle emission standards.

Only short duration, minor discharges of carbon-based pollutants would occur during construction activities that could contribute to GHG. Estimated emissions from construction equipment would not be expected to exceed *de minimis* levels, direct emissions of a criteria pollutant, or its precursors. Any impacts would be short-term, localized, and would only occur during construction phase activities. Impacts to air quality as part of the PAA would be temporary and minimal during construction. Therefore, no significant long-term direct or indirect impacts to air quality are anticipated as part of the PAA.

No direct or indirect impacts to air quality are anticipated as part of the NAA. A reasonably foreseeable adverse effect to GHG emissions could result under the NAA from infrastructure failure; however, this would be a localized and minor impact.

3.14 Noise

Noise associated with the PAA would be limited to that generated during construction. The noise associated with construction would be short in duration and would only occur during daylight hours. Noise is measured as Day Night average noise levels (DNL) in “A-weighted” decibels that the human ear is most sensitive to (dBA). There are no Federal standards for allowable noise levels. According to the Department of Housing and Urban Development Guidelines, DNLs below 65 dBA are normally acceptable levels of exterior noise in residential areas. The Federal Aviation Administration (FAA) denotes a DNL above 65 dBA as the level of significant noise impact. Several other agencies, including the Federal Energy Regulatory Commission, use a DNL criterion of 55 dBA as the threshold for defining noise impacts in suburban and rural residential areas.

According to Dr. Paul Schomer in his 2001 *A White Paper: Assessment of Noise Annoyance*, while there are numerous thresholds for acceptable noise in residential areas, research suggests an area’s current noise environment, which has experienced noise in the past, may reasonably expect to tolerate a level of noise about 5 dBA higher than the general guidelines. The USACE Safety and Health Requirements Manual provides criteria for temporary permissible noise

exposure levels (see Table 1 below), for consideration of hearing protection or the need to administer sound reduction controls.

Table 1 – Non-Department of Defense Continuous Noise Exposures

Duration per day (hours)	Permissible Sound-pressure Level (decibels)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105

Construction noise would be similar to that of farm equipment and other small machinery used in the local area. A grader, excavator, and backhoe are examples of equipment that is likely to be used during construction. Each emits noise levels around 85 dBA at 45 feet. Construction equipment would be operated during daylight hours; therefore, a reasonable exposure time of two hours would be expected during the time residents may be home during the day. Peak outdoor noise levels ranging from 78-90 dBA would occur during the time in which equipment is directly in front of or in proximity to homes and businesses (within 25-100 feet). A maximum noise exposure of approximately 98 dBA, for one hour could occur if equipment were within 10 feet of homes and business.

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. While the construction noise generated would be considered unacceptable according to HUD and FAA standards, these limited exposures and time intervals are still within allowable USACE safety levels. Further, they 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.

Construction activities would be located approximately 0.01 miles from the closest residence. At this distance, residents could experience a maximum noise exposure of approximately 84 dBA based on the anticipated construction noise. Mason County, West Virginia does not have an established noise ordinance in relation to construction activities. However, a maximum noise exposure of 84 dBA is below the USACE's Safety and Health Requirements Manual's temporary permissible noise exposure levels for a duration of eight (8) hours. Due to daytime construction and the short and limited duration of elevated noise levels associated with the PAA, direct impacts from the noise to local residences could be minor to moderate but would be temporary in nature. Therefore, no significant long-term direct or indirect impacts to noise are anticipated as part of the PAA.

There would be no change in noise and thus no impact, neither indirect nor direct, under the NAA.

3.15 Socioeconomics

According to the U.S. Census Bureau, the population for Mason County, West Virginia is 24,770 and it does not contain a significant minority population. The U.S. Census Bureau states that 18% of the County lives below the poverty line compared to 16.7% statewide. The U.S. Census Bureau indicates that the County is 96.6% white, and the median household income is $53,454. In addition, 20.4% of individuals residing in Mason County, West Virginia are under the age of 18 compared to 19.9% statewide.

E.O. 13045, as amended, requires each Federal agency "to identify and assess environmental health 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 E.O. 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 potential for impacts on the health and safety of children is greater where projects are located near residential areas.

The PAA would benefit residents and children in the project area that rely on the continued operation of the Crab Creek WTP. The PAA would meet the requirements E.O. 13045 by improving the environment for residents within the project area including children. Based on the above, the PAA is anticipated to have beneficial direct and indirect impacts to children and residents alike.

Under the NAA, the PSD would not improve the Crab Creek WTP, and the WTP would continue to operate as is, resulting in interruptions in operations and services and degraded quality of service. Therefore, the NAA could create unsanitary conditions for residents and children alike.

3.16 Aesthetics

The PAA would occur entirely within the Crab Creek WTP's existing footprint which is routinely maintained. Temporary disturbance of local aesthetics would be anticipated during construction activities; however, following construction, any areas disturbed during construction activities would be reseeded with a native vegetation seed mix as appropriate.

Neither the PAA nor NAA would significantly impact, directly or indirectly, local aesthetics.

3.17 Transportation and Traffic

Roads within the project area include State Route 2 and Riverview Drive, a private residential drive that consists of a one-lane gravel road. Traffic along Riverview Drive primarily consists of residents' access to homes. The PAA would not involve any roadway construction; however, State Route 2 and Riverview Drive would be used to bring in heavy machinery and equipment. Work associated with the PAA would consist of improvements to the existing Crab Creek WTP. Temporary minimal impacts to traffic could occur during transportation of machinery and equipment to the site. Necessary traffic controls would be utilized during construction and

contractors would adhere to West Virginia Division of Highways (WVDOH) guidelines. Therefore, no significant long-term direct or indirect impacts to noise are anticipated as part of the PAA.

No direct or indirect impacts to transportation and traffic are anticipated to occur from the NAA.

3.18 Health and Safety

A well maintained WTP reduces the risk of interruptions in operations and services. The PAA has been designed to provide necessary improvements to the Crab Creek WTP that would improve the quality of service. Rust has resulted in holes in the various treatment system components, and the proposed improvements would address the facility's current health and safety risks. Based on the above, the PAA is anticipated to have beneficial direct and indirect impacts to health and safety.

Under the NAA, the Crab Creek WTP would continue to operate as is, causing health and safety concerns.

4.0 Status of Environmental Compliance

The PAA will be in full compliance with all local, state, and Federal statutes as well as Executive Orders prior to issuance of a FONSI. Compliance is documented below in Table 2.

Table 2 – Environmental Compliance Status

Statute/Executive Order	Full	Partial	N/A
National Environmental Policy Act (considered partial until the FONSI is signed)		X	
Fish and Wildlife Coordination Act		X	
Endangered Species Act	X		
Clean Water Act	X		
Wild and Scenic Rivers Act	X		
Clean Air Act	X		
National Historic Preservation Act	X		
Archeological Resources Protection Act			N/A
Comprehensive, Environmental Response, Compensation and Liability Act	X		
Resource Conservation and Recovery Act	X		
Toxic Substances Control Act	X		
Quiet Communities Act	X		
Farmland Protection Act	X		
Executive Order 11988 Floodplain Management	X		
Executive Order 11990 Protection of Wetlands	X		
Executive Order 13045 Protection of Children	X		

5.0 REQUIRED COORDINATION

5.1 Agencies Contacted

Direct coordination with NRCS, SHPO, USFWS, and WVDNR were completed prior to publication of the EA. Coordination with Tribal nations is ongoing and would be completed prior to the issuance of a FONSI. Agency correspondence is included in Appendix B.

5.2 Public Review and Comments

The EA and FONSI will be available for public review and comment for a period of 30 days, as required under NEPA. A Notice of Availability will be published in the local newspaper, The Point Pleasant Register, advising the public of this document's availability for review and comment. A copy of the EA will also be placed in the Mason County Library and made available on-line at ***https://www.lrd.usace.army.mil/Mission/Public-Review-Approved-Plan.*** The mailing list for the EA is located in Appendix C.

6.0 CONCLUSION

The Crab Creek WTP provides service to Crab Creek, Ashton, and surrounding areas of Mason County, West Virginia. Demand on the Crab Creek system increased after the Crab Creek WTP began serving the Ashton system after the Ashton system went out of service. The Crab Creek WTP has been experiencing issues due to aging infrastructure, resulting in interruptions in operations and services. In addition, rust has resulted in holes in the various treatment system components. The proposed improvements to the Crab Creek WTP would address the aging and/or deteriorating infrastructure and improve quality of service.

The entirety of the project would be limited to the Crab Creek WTP's existing footprint which is routinely maintained. 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 adverse 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:

The Thrasher Group, Inc.
[redacted]

U.S. Army Corps of Engineers Huntington District
Planning Branch
[redacted]

8.0 REFERENCES

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