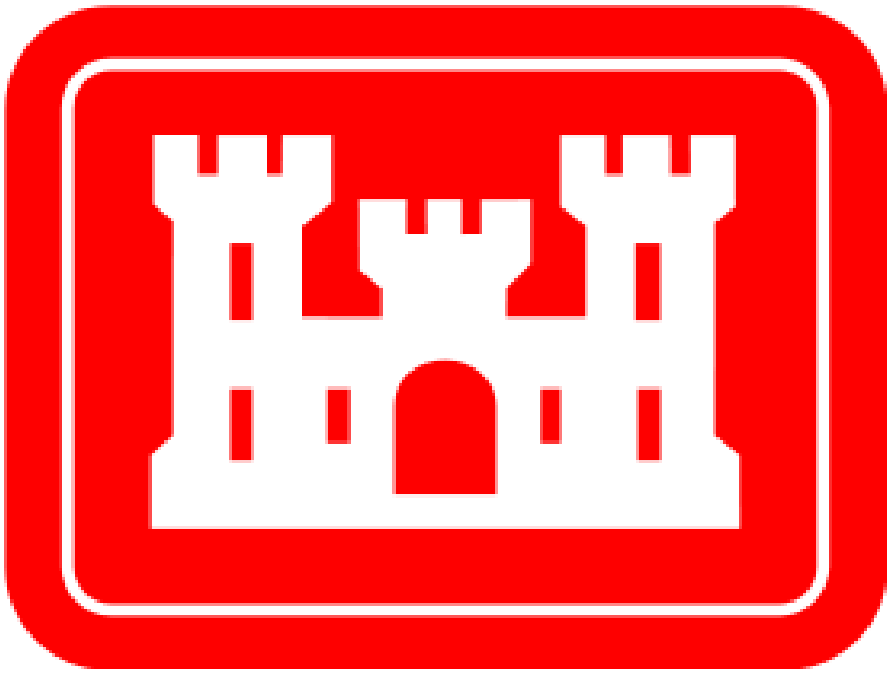
Draft Environmental Assessment
Section 340 City of Williamson
Water System Upgrade Project
Mingo County, West Virginia



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

Draft Environmental Assessment
Section 340 City of Williamson
Water System Upgrade Project
Mingo County, West Virginia
Executive Summary

The City of Williamson (City) is proposing to upgrade its water system in Mingo County, West Virginia. The project is necessary to repair and replace components that are aging or near capacity.

The Proposed Action Alternative (PAA) would include upgrading the water treatment, storage, and distribution system in the City. The PAA consists of the construction and installation of three (3) 2,500-gpm treatment plant high service pumps, new filter media, construction of approximately 15,100 feet of 24-inch and smaller diameter water mains, a 500-gpm booster pump station, two (2) new 1,500,000 gallon water storage tanks, one (1) new 500,000-gallon water storage tank, one (1) new 300,000-gallon water storage tank, rehabilitation of an existing 300,000-gallon water storage tank, numerous pressure reducing stations, back-up generators for the treatment plant and booster pump station, one (1) 12-inch, portable back-up pump with accessories, telemetry, fire hydrants, valves, 1,750 replacement meters, and other related appurtenances. Water for the project would be produced by the City, which uses the Tug Fork River as the source for raw water.

The proposed project is being conducted pursuant to a partnership agreement between the City and the U.S. Army Corps of Engineers (Corps), 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 Corps to establish a program to provide environmental assistance to non-Federal entities in southern West Virginia. This law authorizes 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 and the Corps' implementing regulation, ER-200-2-2.

SECTION 340 CITY OF WILLIAMSON
WATER SYSTEM UPGRADE PROJECT
MINGO COUNTY, WEST VIRGINIA

TABLE OF CONTENTS

List of Tables

List of Appendices

The brief and concise nature of this document is consistent with Corps 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 E.L. Robinson Engineering Company with the Corps. 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 City of Williamson (City) is in Mingo County, West Virginia. The City currently owns and operates a water system that provides service to approximately 1,742 customers in the communities of Williamson, South Williamson, and surrounding areas of Mingo County, WV and Pike County, KY. The current system consists of approximately 216,838 feet of 16-inch and smaller diameter water mains, six (6) booster stations, seven (7) storage tanks with a total capacity of 1,951,500 gallons, fire hydrants, valves, customer services, and other related items. The City owns and operates a 2.8-million gallon per day (MGD) water treatment plant which uses the Tug Fork River as its source.

1.2 Purpose, Need, and Authorization

The City's water treatment plant and distribution system currently satisfies water quality standards and demand from its customers. However, several components are aging or near capacity and need repair or replacement.

The whole treatment plant, with all of its current pumps, has a design capacity of 2.8 MGD and a maximum treatment capability of 3,000 gallons per minute (gpm). Typical operations produce roughly 2.0 MGD, running about 19 hours per day. The high service pumps have started to wear and need replacement. Increasing each of the high service pumps to 2,500 gpm will increase the total treatment plant's capability and reduce the average plant operating time to less than 15 hours per day. Replacing the sand and anthracite filter media should result in higher quality water being produced. The media is excessively worn; the 2016 Sanitary Survey noted that anthracite layers were 50% of the designed requirements. This depletion causes the effective filtration rate to be nearly half the designed rate. In addition, due in part to slower filter runs, the system is not expected to meet current water demand in the event a filter would need to shut down.

The distribution system contains numerous inefficient components which contribute to higher operating costs. The existing booster pump station and storage tank sites are the result of the gradual extension of the City's distribution network over time. With the potential for economic development on the airport site, taking the opportunity to service this area with new waterline also allows the City to create a more efficient system by creating a second connection to the

Valley View area. By placing a proposed 500,000-gallon tank at the airport, and with a new, 1.5-million-gallon High Service Tank, the City could produce a net reduction of one (1) storage tank and five (5) pump stations, reducing power consumption considerably.

The existing water storage tanks have shown deterioration and are undersized for current standards for emergency storage. The proposed project would retire several aging water storage tanks, whose deterioration could pose contamination risks in the future. Two (2) significant deficiencies noted in the 2016 Sanitary Survey are the degradation of both the Mulberry Tank (main transfer tank for the City) and the High Service Tank. Together these represent 668,000 gallons of storage capacity at risk of failure. The other tanks proposed to be replaced (Valley View, Goujot, Sycamore, and the Airport bladder tanks) have also shown varying levels of wear that need addressed and/or would be rendered hydraulically unnecessary with the other proposed improvements.

The proposed project is pursuant to a partnership agreement between the City and the Corps, established under the authority of Section 340 of the Water Resources and Development Act (WRDA) of 1992 (Public Law 102-580), as amended, which authorizes the Corps 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 EA is prepared pursuant to the NEPA and the Corps Implementing regulation, ER-200-2-2.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action Alternative (PAA)

The PAA would include upgrading the water treatment, storage, and distribution system in the City. The PAA consists of the construction and installation of three (3) 2,500-gpm treatment plant high service pumps, new filter media, construction of approximately 15,100 feet of 24-inch and smaller diameter water mains, a 500-gpm booster pump station, two (2) new 1,500,000 gallon water storage tanks, one (1) new 500,000-gallon water storage tank, one (1) new 300,000-gallon water storage tank, rehabilitation of an existing 300,000-gallon water storage tank, numerous pressure reducing stations, back-up generators for the treatment plant and booster pump station, one (1) 12-inch, portable back-up pump with accessories, telemetry, fire hydrants, valves, 1,750 replacement meters, and other related appurtenances. Water for the project would be produced by the City, which uses the Tug Fork River as the source for raw water.

2.2 No Action Alternative (NAA)

Under the No Action Alternative (NAA), the Corps would not provide funding for the project and the City would not upgrade its water system. The system would continue to degrade, and system storage capacity would become insufficient to properly serve the customer area. Furthermore, the water system would prevent any appreciable growth in the future. Although the NAA is not considered a viable alternative, the NAA is still included in the alternatives analysis to establish a baseline condition for existing human and natural environmental conditions, to

allow comparison between the 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 Corps 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 Corps 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 situated in southern West Virginia along the Tug Fork River which boarders Kentucky. Figure 1 below shows the overall project location (See Appendix A for more maps).

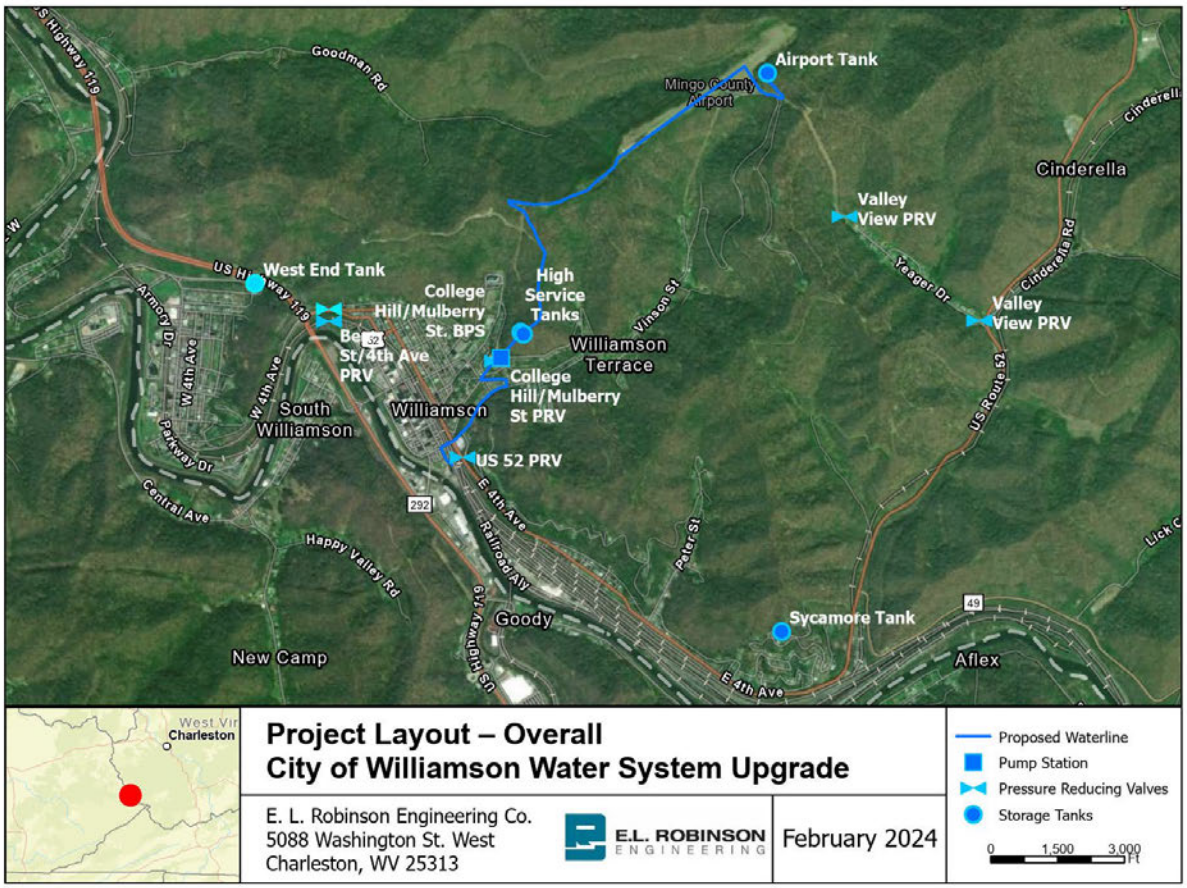


Figure 1: Project Location

3.1.1 City of Williamson Water Treatment Plant

The City's water treatment plant is located at the south end of Third Avenue, outside the concrete floodwall that lies on the south and west sides of downtown Williamson. The parcel is generally flat until sloping down sharply to the Tug Fork River. The Site is located on a constrained, triangular parcel between the Norfolk Southern rail yard to the north and east, a concrete floodwall to the north and west, and the Tug Fork River to the south and west. The Site largely lacks vegetation beyond grasses on undeveloped parts near the floodwall and small softwood trees and shrubs along the riverbank. No land disturbance is anticipated for this site as all work is expected to occur within the building.

3.1.2 Airport Tank Site

The Airport Tank Site is located near the top of Airport Road (County Route 52/32) on a forested hillside. The Site is accessible by an unpaved route formerly used for logging. The Site is located on the point of a ridge overlooking the former airport property. The hillside is gently sloping in this area, with steeper grades to the north and south. The Site is vegetated with a mix of softwood and hardwood trees, shrubs, and short grasses. The Site overlooks the former airport property and runway as well as the current Mingo County 911 center. All other adjacent areas are undeveloped. Land disturbance for this tank site is estimated to be 0.5 acres.

3.1.3 High Service Tanks Site

The High Service Tanks Site is located where the City's existing High Service tank sits, which is approximately 650 feet northeast of the Mulberry Street curve on College Hill. The Site is located near the point of a ridge overlooking College Hill and the rest of the city. The hillside is gently sloping in this area, with steeper grades to the north and south. The Site is vegetated with a mix of softwood and hardwood trees, shrubs, and grasses. The Site is surrounded by forested slopes on all sides. Land disturbance for this tank site is estimated to be 1 acre.

3.1.4 Sycamore Tank Site

The Sycamore Tank Site is located adjacent to the Trinity Health Care assisted living center at the top of Hillcrest Drive, approximately 1.5 miles from downtown Williamson. The Site is located near the toe of a slope adjacent to the assisted living facility. The hillside to the north is steeper in grade and vegetated with a mix of softwood and hardwood trees, shrubs, and grasses. The area to the south is predominantly residential, with the closest structures approximately 150 feet downhill from the Site. The surrounding area is predominantly single-family residences on sloping terrain. The assisted living facility is adjacent to the tank site, roughly 150 feet to the northeast. The Site is bounded to the north by forested slopes. Land disturbance for this tank site is estimated to be 0.1 acres.

3.1.5 West End Tank Site

The West End Tank Site is located at the intersection of US Route 119 (US 119) and Fairview Addition Road, elevated approximately 10 feet above the road grade. The Site is tightly bound by the roadways and nearby residences. The tank sits on a rocky outcropping about 10 feet above

the roadways, likely exposed when the highway was constructed. The parcel is graded such that the tank is elevated above all adjacent parcels. The Site is bounded by US 119 to the north and Fairview Addition Road to the west. The property to the east is undeveloped and vegetated with small trees and shrubs. A residential area is located immediately south of the Site, with the closest structure approximately 75 feet away. Land disturbance for this tank site is estimated to be 0.1 acres.

3.1.6 College Hill/Mulberry Street BPS and PRV Sites

The College Hill/Mulberry Street Booster Pump Station (BPS) and Pressure Reducing Valves (PRV) Sites are co-located next to the existing Mulberry tank and booster within the old water treatment plant. The area sits on a vacant lot within the bend of Mulberry Street on College Hill, adjacent to the former plant building. The Site is in a developed section of the city near the toe of a slope. The surrounding parcels, largely residential in addition to the former treatment plant and hospital, are nearly level or downslope of the Site. The area to the north is uphill from the Site and undeveloped, with a mix of softwood and hardwood trees, shrubs, and grasses. The Site is adjacent to the old water treatment plant, now housing the Mulberry Tank and BPS. Other properties next to the Site are mostly residences closely fronting Mulberry Street, the closest of which is about 75 feet from the Site to the east. The former hospital property is 150 feet to the west. Land disturbance for these PRV stations is estimated to be 0.2 acres.

3.1.7 Valley View/Yeager Drive PRV Sites

The Valley View PRV Sites are located at either end of Yeager Drive, a small residential area approximately 1.5 miles northeast of downtown Williamson and accessible by US Route 52 (US 52). Both Sites are on vacant parcels near single family residences and sit about 0.5 miles apart. Both Sites are on generally flat terrain with only short grasses as vegetation. The elevation along Yeager Drive largely rises away from US 52. Sycamore Creek follows US 52 at the mouth of the Valley View area, and no perennial stream exists along Yeager Drive. The Valley View area is bounded on either side by steep slopes with no secondary access to the valley. The Sites are adjacent to single family residences. Yeager Drive is otherwise bounded on either side by steep, forested slopes. Land disturbance for these PRV stations is estimated to be 0.1 acres.

3.1.8 US Route 52 PRV Site

The US 52 PRV Site is located adjacent to the intersection of US 52 and Lt. Alex Bucci Road, which connects to Vinson Street near the City's garage. The City's water treatment plant is about 250 feet to the west, separated by the Norfolk Southern railroad tracks and US 52. The Site is hemmed in by a steep, rocky slope immediately to the east and roadways on all other sides. Drainage is generally to the north and west to and from the Site. The Site is bounded by a slope to the north and east, with two (2) houses of worship 200-250 feet away, uphill. The Williamson city garage is 300 feet to the north and west, downhill. Likewise, the Norfolk Southern tracks and water treatment plant are downhill from the Site, about 100 feet and 250 feet away to the west, respectively. Land disturbance for this PRV station is estimated to be 0.2 acres.

3.1.9 Ben Street/4th Avenue PRV Sites

These PRV sites are located adjacent to US 52 (Ben Street/4th Avenue) and the Norfolk Southern railroad tracks. The location next to the roadway is undeveloped and vegetated with small softwood trees and shrubs. The PRV site next to the railway likewise is undeveloped and covered with shrubs and small softwood trees. Both PRV Sites are bounded to the north by steep slopes and to the south by a roadway (northern PRV Site) and railway (southern PRV Site). These are approximately 200-400 feet north of the Tug Fork River and 250 east of US 119. US 52 adjoins the northern PRV site. The north side of the site is bounded by a steep hillside with a recreational trail serving all-terrain vehicles (ATVs) as part of the Hatfield McCoy Trail System. The southern PRV site is next to the Norfolk Southern railway, which is double-tracked in this location. The site is also near the Williamson floodwall to the south and east, and the former Mingo Lime and Lumber Company further east. Land disturbance for this PRV station is estimated to be 0.2 acres.

3.1.10 New Waterline to Airport Tank

The new Airport Tank will be connected to the existing system via a waterline from the High Service Tanks along an undeveloped ridgetop to the former airport. The waterline generally follows the runway until turning towards the Mingo County 911 Center and briefly along Airport Road before ascending the toe of the adjacent slope to the Airport Tank site. About one-third of the waterline would be constructed along an undeveloped ridgeline vegetated by a mix of softwood trees and shrubs. Much of the route would be alongside an existing gravel road (used to access the cell towers) or the former runway. Two (2) communications towers transmitting radio and cellular data service are adjacent to the ridgetop portion of the waterline route. Near the airport section of the waterline, adjacent land uses include a decommissioned runway, former general aviation hangers and support building sites, and an active emergency call center. Land disturbance for the waterline is estimated to be 6.7 acres.

3.2 Land Use

The project area land use varies among the sites listed above. Much of the project will be replacing or rehabilitating existing features. Work at the City of Williamson Water Treatment Plant, High Service Tanks, Sycamore Tank Site, and West End Tank Site would stay within the current footprint and would have no impact on land use. The total land disturbance for these four (4) sites is estimated to be 1.2 acres.

The College Hill/Mulberry Street BPS and PRV Sites would change land use from a vacant lot used for access and parking for the Mulberry Street Tank and BPS. This change would not be adverse or significant. The total land disturbance for these two (2) sites is estimated to be 0.2 acres.

Undeveloped sites such as the Airport Tank Site, Valley View/Yeager Drive PRV Sites, Ben Street/4th Avenue PRV Site, US Route 52 PRV Site, and much of the waterline installation do not have a current land use (See Section 3.4 for Terrestrial Habitat) and therefore would have no impact on land use. The total land disturbance for these six (6) sites and waterline is estimated to be 7.7 acres, with the waterline accounting for 6.7 acres.

The PAA would have no significant indirect or direct impacts on land use.

There would be no impacts, neither direct nor indirect, to land use as a result of the NAA.

3.3 Climate

The project area is situated in southern West Virginia along the Tug Fork River, bordering the state of Kentucky. The average annual high and low temperatures for the region are 76 ° F and 35° F, respectively, with July being the hottest and January being the coldest month. The annual precipitation for the area is 46.6 inches.

The PAA would have a minimal impact on climate, and only for a short duration. Minor discharges of carbon-based pollutants would occur during construction activities that could contribute to greenhouse gases (GHG), see Section 3.14 for more information. 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 to changing conditions can threaten water infrastructure, so by improving the infrastructure of the water system, the City would be enhancing its resilience to changing conditions.

The Tug Fork River is part of the 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 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 changes 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 percent change in maximum streamflow increases substantially across PA, WV, OH, IN, and IL. 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.

Only short duration, minor discharges of carbon-based pollutants would occur during construction activities that could contribute to GHG. 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. Therefore, no significant adverse impacts, direct or indirect, to climate would occur as a result of the PAA or NAA.

3.4 Terrestrial Habitat

Terrestrial habitat within the project area consists of woodlands, West Virginia Division of Highways (WVDOH) rights-of-way, residential lawns, airport facilities, trail systems, and railroads. Much of the project would be within the footprint of existing facilities and/or in previously disturbed areas. Approximately 9.1 acres of land would be disturbed with 4.25 acres of tree clearing. Areas would be returned to pre-construction conditions, where applicable, upon completion of construction activities through soil grading and grass seeding.

Work at the City of Williamson Water Treatment Plant, High Service Tanks, Sycamore Tank Site, and West End Tank Site would stay within the current footprint and would have no significant impact on terrestrial habitat. Similarly, the College Hill/Mulberry Street BPS and PRV Sites would have no significant impact on terrestrial habitat as the Sites are currently a vacant lot used for access and parking for the Mulberry Street Tank and BPS building.

Work at the undeveloped sites would impact terrestrial habitat, but the area of disturbance would be minor, and the non-Federal Sponsor would restore areas disturbed by construction back to their pre-existing conditions as applicable. The Airport Tank Site (0.5 acres of disturbance) is on a forested hillside vegetated with a mix of softwood and hardwood trees, shrubs, and short grasses. The Valley View/Yeager Drive PRV Sites (0.1 acres of disturbance) are both on generally flat terrain with only short grasses as vegetation. The Ben Street/4th Avenue PRV Sites (0.2 acres of disturbance) are both vegetated with small softwood trees and shrubs, and are next to the roadway and railway, respectively. The US Route 52 PRV Site (0.2 acres of disturbance) is adjacent to the intersection of US 52 and Lt. Alex Bucci Road and is currently vacant.

The waterline installation (6.7 acres of disturbance) would follow the airport runway until turning towards the Mingo County 911 Center and briefly along Airport Road before ascending the toe of the adjacent slope to the Airport Tank site. About one-third of the waterline would be constructed along an undeveloped ridgeline vegetated by a mix of softwood trees and shrubs. Much of the route would be alongside an existing gravel road (used to access the cell towers) or the former runway. The non-Federal Sponsor would restore areas disturbed by construction back to their pre-existing conditions.

Only minor 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, either direct or indirect, to terrestrial habitat anticipated as part of the NAA.

3.5 Prime and Unique Farmland

The Farmland Protection Policy Act requires Federal agencies to minimize the conversion of prime and unique farmland to non-agricultural uses. Based on consultation of the United States Department of Agriculture's (USDA) Web Soil Survey, no part of the project is expected to affect prime farmland. Please see Appendix B for the Web Soil Survey Report. Furthermore, on

16 May 2025 the USDA National Resources Conservation Service (NRCS) confirmed that no prime farmland would be impacted as part of the proposed action (Appendix B).

There are no impacts, either direct or indirect, to Prime and Unique Farmland anticipated as part of the PAA or NAA.

3.6 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).

No new construction will occur in the regulatory floodway; the water treatment plant is within the 100-year floodplain; however, no land disturbance is anticipated for this site, as all work is expected to occur within the building. In addition, one (1) PRV station, north of the railroad and south of Ben Street/ US 52 is located within the 100-year floodplain. There will be ground disturbance to install a valve vault at this location, but the final elevation of the vault will be roughly where the ground is now. See Appendix A for a floodplain map of the project area from WV Flood Tool.

On 14 March 2025, the floodplain manager for Mingo County, West Virginia issued a floodplain permit for installation of the underground valve vault at the PRV station as part of the Williamson Water System Improvements Project. A copy of this permit can be found in Appendix B.

All applicable portions of the infrastructure will be flood-protected, and underground infrastructure, such as waterlines, will result in no adverse impact to the floodplain or regulatory floodway as they would be buried and result in no change in grade or elevation. Any waste excavation will be deposited outside the floodplain area and no significant impact to the floodplain is expected as a result of the project.

As no construction related activities would be implemented, no additional impacts to floodplains are anticipated to occur from the NAA.

3.7 Aquatic Habitat/Water Quality

The proposed project area is located within the Miller Creek-Tug Fork watershed (HUC 050702010506) which is part of the greater Ohio River Basin. Both Williamson Creek and the Tug Fork River are on the 303(d) list for impaired waterbodies. Identified issues in both include fecal coliform, high levels of metals, and degraded aquatic life. According to the Environmental Protection Agency's (EPA) My Water Way tool, there are three (3) restoration plans within the Miller Creek-Tug Fork watershed and two (2) nonpoint source projects funded by EPA grants that benefit the watershed. Implementation of the PAA would not result in new discharge of pollutants.

The project does not propose to impact water quality or aquatic habitat. Erosion and sediment controls would be utilized to prevent sediment from entering waterways. The single stream

crossing for the proposed waterline would be over an encased stream, Williamson Creek, and would run overtop the culvert containing the stream. Work near the Tug Fork River would be performed outside the floodwall using typical open cut trench excavation during typical dry periods, typically summer.

On 23 September 2024, the Corps Regulatory Division determined that the proposed project will neither result in a discharge and/or fill material into waters of the United States nor involve work in, on, over or under a navigable water of the United States. Therefore, 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. No further coordination with the Corps' Regulatory Branch is required. If conditions change and it is determined that waters may be impacted, coordination with the Corps' Regulatory Branch and West Virginia Department of Environmental Protection (WVDEP) will be required, and all applicable permits shall be obtained by the non-Federal Sponsor.

A National Pollutant Discharge Elimination System (NPDES) permit for construction of the proposed action would be required due to the size of the construction area, and an erosion and sediment control plan would be drafted and submitted by the City to the WVDEP prior to construction. Construction-related impacts would be short-term and minor and mitigated through the use of Best Management Practices (BMPs) that would be used throughout the project areas 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 adverse environmental impacts to aquatic habitat and water quality. The PAA is anticipated to have beneficial direct and indirect impacts to drinking water quality by providing reliable water service and higher quality water to residents and businesses.

Under the NAA, no aquatic impacts would occur and water quality in the project area would remain unchanged. However, without the proposed project, the system would continue to degrade, and system storage capacity would become insufficient to properly serve the customer area.

3.8 Wetlands

E.O. 11990 requires Federal agencies to consider the potential effects of their proposed actions to wetlands. No wetlands will be impacted during the construction of the project. According to the National Wetland Inventory there are no bodies of water or wetlands within the project area aside from Williamson Creek. Therefore, there would be no impacts, either direct or indirect, to wetlands under the PAA.

No impacts to wetlands are anticipated as part of the NAA.

3.9 Wild and Scenic Rivers

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

3.10 Hazardous, Toxic, and Radioactive Waste (HTRW)

No toxic, hazardous or radioactive substances will be utilized by the project facilities nor is it anticipated that any will be encountered during their construction. The April 2024 Final Phase I Environmental Site Assessment (ESA) was submitted under separate cover.

After review of the Phase I ESA, Corps' HTRW staff determined that no further investigation or action is required. Therefore, no impacts to HTRW are anticipated with the PAA. A clearance memorandum was signed by Corps' HTRW staff on 12 April 2024 and is included in Appendix B.

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

3.11 Cultural Resources

E.L. Robinson Engineering Company, on behalf of the non-Federal Sponsor, submitted the proposed project to the West Virginia State Historic Preservation Office (SHPO) for its review and consultation. On 25 May 2021, the SHPO requested that the 500-gpm booster pump house be painted white to blend in with the background of the old water treatment plant on Mulberry Street to avoid adverse effects to the historic district. As the majority of the proposed construction activities will occur within previously disturbed areas and/or on sloped terrain, SHPO determined that it is unlikely that significant intact deposits will be encountered during construction. Therefore, the proposed water system upgrade project will have no effect on archaeological historic properties.

The Corps Huntington District Archaeologist has reviewed the undertaking and agrees with the SHPO's determinations. In accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR 800), the Corps Huntington District submitted an effects determination letter of no potential to effect to the SHPO for its review. On 5 September 2024, SHPO concurred that the proposed project would have no adverse effect on historic properties. Given that the PAA, as defined, has no potential to cause effect to cultural resources, no Tribal consultation is necessary. Therefore, the District's obligations under Section 106 of NHPA have been met.

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 Mingo County Coroner, and SHPO must also be notified immediately if human remains are discovered.

Under the NAA, no construction related actions would be implemented, so no significant detrimental impacts to cultural resources would occur.

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*),

gray bat (*Myotis grisescens*), northern long-eared bat (*Myotis septentrionalis*), tricolored bat (*Perimyotis subflavus*; proposed endangered), Big Sandy crayfish (*Cambarus callainus*), and monarch butterfly (*Danaus Plexippus*; proposed threatened). There are no designated critical habitats within the project area.

The project area consists of WVDOH rights-of-way, residential areas, airport facilities, trail systems, and railroads. In a letter dated 3 August 2023, the West Virginia Division of Natural Resources (WVDNR) indicated that although no known rare, threatened, or endangered species are within the project area, the Tug Fork River is a federal crayfish stream for the federally threatened Big Sandy Crayfish and a state mussel stream. In-stream work, which is not anticipated for this project, would require crayfish and, as necessary, mussel surveys. The single stream crossing for the proposed waterline would be over an encased stream, Williamson Creek, and would run overtop the culvert containing the stream. Therefore, the Corps' Huntington District has determined the proposed action would have no effect on the Big Sandy Crayfish.

Approximately 9.1 acres of land would be disturbed with 4.25 acres of tree clearing. Trees would be cleared during the seasonal tree clearing window of November 15 – March 31 to limit impacts to bats. Additionally, there are no mine portals, bridges, nor culverts that are suitable for roosting bats that would be directly impacted by the project. Therefore, the Corps' Huntington District has determined the project would have a may affect, but not likely to adversely effect on the Indiana bat, gray bat, northern long-eared bat, tricolored bat, and monarch butterfly.

On 13 May 2025, the USFWS West Virginia Field Office concurred with the Huntington District's determinations (Appendix B).

The NAA would not result in additional ground disturbing activities, tree clearing or fill within waters. Therefore, there would be no effect to Federally Threatened and Endangered Species associated with the NAA.

3.13 Invasive Species

Invasive species can spread easily into native plant communities and displace native vegetation. The proposed project site does not have an existing inventory of invasive species, and their presence is not well known; however, it is anticipated that invasive species will be abundant due to the disturbed roadside setting that much of the proposed project footprint falls in. Invasive species that could occur within the project area includes but is not limited to kudzu (*Pueraria lobata*), Japanese knotweed (*Polygonum cuspidatum*), and crown vetch (*Securigera varia*).

The PAA is anticipated to have no or negligible beneficial impacts on invasive species. The project area consists of woodlands, WVDOH rights-of-way, residential lawns, airport facilities, trail systems, and railroads. Much of the project would be within the footprint of existing facilities and/or in previously disturbed areas. The non-Federal Sponsor would revegetate areas disturbed by construction with native plant species, which could provide negligible long term beneficial impacts.

As selection of the NAA would entail no changes to the project area, there are no impacts, either direct or indirect, to invasive species anticipated as part of the NAA.

3.14 Air Quality

According to the EPA's EnviroMapper, Mingo County, WV is in attainment for all criteria air pollutants. In fact, in October 2020, the entire State of West Virginia was designated as meeting all of the EPA's 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.

During construction of the proposed project, temporary air emissions would be generated by the equipment used to install the improvements. Small amounts of dust may be generated during construction and would be held to a minimum by control measures. The proposed infrastructure is not expected to produce noticeable air emissions, nor is it projected to result in increased air emissions from its primary beneficiaries. Contractors would be required to operate all equipment in accordance with local, state, and Federal regulations.

GHGs such as carbon dioxide (CO2), methane (CH4), 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 O&M of the project. The PAA includes the construction and installation of three (3) 2,500-gpm treatment plant high service pumps, new filter media, construction of approximately 15,100 feet of 24-inch and smaller diameter water mains, a 500-gpm booster pump station, two (2) new 1,500,000 gallon water storage tanks, one (1) new 500,000-gallon water storage tank, one (1) new 300,000-gallon water storage tank, rehabilitation of an existing 300,000-gallon water storage tank, numerous pressure reducing stations, back-up generators for the treatment plant and booster pump station, one (1) 12-inch, portable back-up pump with accessories, telemetry, fire hydrants, valves, 1,750 replacement meters, and other related appurtenances. 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 PAA would be minor and temporary in nature.

In a letter dated 10 May 2021, the WVDEP Division of Air Quality (WVDAQ) indicated that the proposed project does not require any pre-construction permits, authorizations, or air quality analyses by WVDAQ. The PAA is exempt through 40 CFR Part 93.153 from making a conformity determination, since estimated emissions from construction equipment would not be expected to exceed *de minimis* levels or have direct emissions of a criteria pollutant or its precursor. 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.

No impacts to air quality are anticipated as part of the NAA.

3.15 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 Corps 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 – Permissible Non-Department of Defense Noise Exposure

Duration/day (hours)	Noise level (dBA)
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 backhoe, end loader, road grader and/or vibratory roller 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 Corps 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.

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 direct, temporary, and minor.

There would be no change in noise and thus no impact under the NAA.

3.16 Socioeconomics

According to the U.S. Census Bureau, the 2020 population estimate for Mingo County was 23,568 and does not contain significant minority populations. The 2022 estimates indicate Mingo County is 95.0% white and has a median household income of $38,305 compared with the median household income of $54,329 for the State of West Virginia. Individuals residing in the county below the poverty level is 28.6% compared to 17.9% statewide. In addition, 25% of individuals residing in the county are under the age of 18 compared to 20.1% 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.

Public service provided by the water supply system improvements would benefit residents in the project area that rely on individual water supply systems such as wells, thereby improving the living environment for all residents. Only minor and temporary ground disturbing activities would occur during installation of service lines and meters to homes and buildings and areas would be returned to pre-construction conditions, where applicable, upon completion of construction activities through soil grading and grass seeding. Therefore, no homes or buildings would be negatively impacted by the proposed project. The PAA meets the directive of E.O. 13045 by avoiding any disproportionately high adverse human health or environmental effects on children.

Under the NAA, residents would continue to experience unsanitary and unsafe conditions, perpetuating health and safety concerns.

3.17 Aesthetics

Aesthetic impacts from this project are expected to be minimal. Construction of the project will be temporary, and many of the project's aboveground components will be out of the way. Additionally, the project will reduce the total number of water storage tanks operated by the City. Therefore, overall, the PAA would not significantly impact local aesthetics.

Neither the PAA nor NAA would significantly impact local aesthetics.

3.18 Transportation and Traffic

Much of the proposed project would be within existing rights-of-way and previously disturbed areas. Construction of the PAA in and along WVDOH rights-of-way would involve some delays and potential detours in the normal traffic flow. If detours would occur, they would be relatively minor and temporary in nature. Construction on or near road surfaces would be in compliance with standard traffic controls to minimize traffic disruptions and avoid public safety problems. No direct permanent increase or hindrance to traffic flows are expected to result from this project. Impacts anticipated to occur from the PAA would be minimal and temporary in nature.

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

3.19 Health and Safety

The PAA has been designed to provide safe, reliable, water supply infrastructure to the residents of the project area. The City's current water treatment plant and distribution system are aging with several components that are near capacity and need repair or replacement. Providing safe and reliable public water service to residents in the area is necessary. Therefore, the PAA is anticipated to have a long-term, beneficial impact on health and safety for the residents in the project area.

Under the NAA, residents would continue to rely on aging infrastructure, which could fail and pose health and safety concerns which could cause minor to potentially significant negative impacts to the community.

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 the Corps' Huntington District Regulatory Division, Corps' Huntington District HTRW section, USFWS West Virginia Field Office, WVDNR, NRCS, SHPO, and Mingo County floodplain manager were completed prior to publication of the EA. 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, Williamson Daily News, advising the public of this document's availability for review and comment. A copy of the EA will also be placed in the Mingo County Public Library and made available on-line at ***https://www.lrd.usace.army.mil/News/Project-Documents-Notices-Public-Review/.*** The mailing list for the EA is located in Appendix C.

6.0 CONCLUSION

The City is proposing to upgrade its water system in Mingo County, West Virginia. The project is necessary to repair and replace components that are aging or near capacity. By providing a safe and reliable water supply system, the proposed project is anticipated to have long-term beneficial impacts on health and safety for residents in the project area and surrounding area by providing clean, potable water. No significant, adverse impacts have been identified as a result of implementation of the proposed improvement project. The NAA was considered unacceptable due to health and safety hazards for the community in the proposed project area.

The project area consists of WVDOH rights-of-way, residential areas, airport facilities, trail systems, and railroads. Health and safety would be realized immediately 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 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.

E.L. Robinson Engineering Company

[redacted]

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

8.0 REFERENCES

Federal Emergency Management Agency
2024 Floodplain Maps Website: https://msc.fema.gov/portal/home

Schomer, Paul
2001 A White Paper: Assessment of Noise Annoyance. Schomer and Associates

State of West Virginia, Department of Health and Human Resources, Bureau for Public Health, Office of Environmental Health Services, St. Albans District Office
2016 Sanitary Survey Williamson Water PWSID No. WV3303009 Mingo County.

U.S. Census Bureau
2024 American FactFinder Website: https://www.quickfacts.census.gov

U.S. Environmental Protection Agency
2024 How's My Waterway Waterbody Report website:
https://mywaterway.epa.gov/waterbody-report/WVDEP/WVK-up_02/2016

U.S. Fish and Wildlife Service
2024 National Wetlands Inventory website: https://www.fws.gov/wetlands/data/mapper.html

U.S. Fish and Wildlife Service
2024 Information for Planning and Conservation website: https://www.fws.gov/ipac

U.S. Geological Survey
2024 StreamStats: Streamflow Statistics and Spatial Analysis Tools for Water- Resources Application. StreamStats Application Website: https://streamstats.usgs.gov/ss/