



REGION 3

PHILADELPHIA, PA 19103

ENVIRONMENTAL ASSESSMENT FOR THE TOWN OF ANSTED, WEST VIRGINIA PHASE 2: EXISTING WASTEWATER TREATMENT PLANT UPGRADE

Introduction

The U.S. Environmental Protection Agency (EPA) is preparing this Environmental Assessment (EA) for the Town of Ansted, West Virginia for their Existing Wastewater Treatment Plant Upgrade project. This project will be supported with federal grant funds from the fiscal year 2023 Congressional Appropriation. This grant will be managed by the EPA Region 3 Community Grants Program in coordination with the town.

This EA has been prepared in compliance with Section 102 of the National Environmental Policy Act of 1969 (NEPA) and the EPA's NEPA procedures for implementing NEPA under 40 C.F.R. Part 6.

This EA analyzes the adverse and beneficial environmental impacts of water infrastructure projects in compliance with NEPA and the required environmental crosscutters and other federal, state, and local environmental reviews, including the *Facilities Plan for the Town of Ansted, Fayette County, West Virginia, Phase 2: Existing Wastewater Treatment Plant Upgrade*. This EA presents general information on existing conditions and discusses potential impacts and mitigation measures that may generally occur during construction and operation of broad project types.

All supporting documents, including this EA, are available for review through the EPA NEPA Compliance Document website at <https://cdxapps.epa.gov/cdx-enepa-ii/public/action/nepa/search/search#results>.

I. Project Identification

Name of Project:	Ansted for Wastewater Treatment Plant Upgrade
Name and Address of Applicant:	Town of Ansted 30 Rich Creek Rd. P.O. Box 798 Ansted, WV 25812
Project Location:	Ansted Sewer Treatment Plant, Lansing, Fayette County, West Virginia 38.131722,-81.097047
EPA Grant Amount:	\$4,400,000
Estimated Total Project Cost:	\$13,360,000

The EPA's funding for this action will support replacing the existing headworks, pumps, and blowers, converting existing treatment units to digesters, constructing two new sequencing batch reactor (SBR) treatment units, replacing the existing disinfection system, and installing a new effluent filtration system. The estimated total cost of the entire project is \$13,360,000 which includes administration, engineering (planning, design, and construction), construction, construction contingency, legal, accounting, power to the site, and permit costs.

All sources of funding are indicated as follows:

EPA Community Grant:	\$4,400,000
Community Grant State Match:	\$1,207,000
West Virginia Infrastructure Jobs and Development Council Grant:	\$1,000,000
Clean Water State Revolving Fund Principal Forgiveness Loan:	\$2,000,000
Water Development Authority Economic Enhancement Grant:	\$4,753,000

II. Background and Purpose

The Town of Ansted Wastewater Treatment Plant is experiencing failing electrical and mechanical equipment, excess infiltration and inflow, and inadequate capacity during peak flow events. The plant was originally constructed in 1960, and though some upgrades were made in 2000, much of the existing treatment system has exceeded its service life. The treatment plant currently has flows exceeding the permitted daily average flow of 230,000 gallons per day (gpd) and there has been discussion of additional nearby homes and businesses that rely on inadequate sewage treatment to connect to the Ansted wastewater system which could generate up to 75,000 gpd. The Town of Ansted is failing to meet the requirements of its West Virginia National Pollutant Discharge Elimination System (NPDES) permit. The planned upgrades will address sewage treatment requirements and increase the capacity to 500,000 gpd, enabling the Town to meet its NPDES permit and accept potential additional flows from outlying areas.

The EPA is proposing to issue a grant to assist the Town of Ansted with the Existing Wastewater Treatment Plant Upgrade project. The proposed infrastructure improvements will replace existing headworks, pumps, and blowers, convert existing treatment units to digesters, replace the existing disinfection system, and install two new SBR treatment units along with a new, relocated, effluent system with a new filtration system. These upgrades will expand the treatment plant capacity from 230,000 gpd to 500,000 gpd, replace failing electrical and mechanical equipment, and improve the wastewater treatment to meet NPDES requirements. This project will contribute to overall public health by providing better quality wastewater treatment and increased capacity to handle the system expansion to currently unsewered areas.

III. Alternatives

The EPA has evaluated the following alternatives as part of its grant action:

- *No-Action Alternative*
- *Proposed Alternative: Convert Existing Wastewater Treatment Plant to the SBR Process and Expand Capacity to 500,000 gpd*

- *Other Alternative: Construct New Wastewater Treatment Plant Upstream of Pump Station No. 1*
- *Other Alternative: Upgrade Existing Wastewater Treatment Plant with New Aqua-Prime Disk Filter and Two Additional Clarifiers*
- *Other Alternative: Consolidation with Other Utilities*

No-Action Alternative

The no-action alternative consists of not awarding the Community Grant to the Town of Ansted for the wastewater treatment plant upgrade. If action is not taken, the failing system will continue to degrade, increase the frequency of problems, and the West Virginia NPDES permit requirements would continue to go unmet. Due to the negative impacts of the no-action alternative, the EPA has found this alternative to be untenable.

Proposed Alternative: Convert Existing Wastewater Treatment Plant to the SBR Process and Expand Capacity to 500,000 gpd

The Town of Ansted decided to convert the existing extended aeration system into a SBR facility and increase the flow capacity to 500,000 gpd, addressing the need for plant upgrades, equipment replacement, and increased capacity. This action will construct new SBR basins, convert existing aeration basins, and upgrade clarifiers. Other equipment including screens, electrical systems, and the generator will be replaced. The effluent system will be relocated to the other side of the existing dam and will contain a new effluent filtration system. This proposed project will address the needed upgrades for the wastewater treatment plant to meet its NPDES permit requirements and provide adequate sewage treatment and capacity to service additional nearby customers.

Other Alternative: Construct New Wastewater Treatment Plant Upstream of Pump Station No. 1

This alternative would completely replace the existing treatment plant with a new 350,000 gpd plant upstream of Pump Station No. 1. This alternative would not provide the desired capacity of 500,000 gpd and was not selected.

Other Alternative: Upgrade Existing Wastewater Treatment Plant with New Aqua-Prime Disk Filter and Two (2) Additional Clarifiers

This alternative would increase the capacity of the existing treatment plant to 350,000 gpd, construct two new secondary clarifiers, and install an Aqua Aerobics "Aqua Prime" Disk Filter. This alternative would not provide the desired capacity of 500,000 gpd and was not selected.

Other Alternative: Consolidation with Other Utilities

This alternative would abandon the current treatment plant and pump wastewater to a neighboring facility. It is not feasible due to distance of the neighboring Kanawha Falls Public Service District (PSD) and the need to cross the 800 feet deep New River Gorge. The length of pipe would be roughly 75,000 feet, which would have a detention time of as much as 24 hours and would result in severe septicity problems. Additionally, the Kanawha Falls PSD does not have the capacity to accept Ansted's existing or future flows, so it is neither reasonable nor implementable, and as a result, was not selected.

The Town of Ansted evaluated these alternatives based on four different categories: implementation, reliability, capital costs, operation and maintenance. Though the Proposed Alternative has a higher capital cost, it overall had the best score for implementation and reliability. In addition, it is the option that provides the necessary capacity for the Town of Ansted to serve additional homes, businesses, and public facilities adjacent to the town that are currently unserved.

IV. Environmental Impacts of Proposed Alternative

The environmental impacts of the alternatives and their predictable consequences have been reviewed for a broad range of potential areas of concern. Note that several resources were not evaluated in this EA because additional investigation is not necessary to determine that implementation of the alternatives are unlikely to have any impacts.

- *Land Use*

No anticipated negative impact. The proposed ground disturbing activities will be confined to previously disturbed areas within the existing plant property and no tree clearing is required for this project. Land use is mixed forest with nearby development. Land use is expected to remain unchanged, and no negative impact is expected.

This project is not located within qualifying farmland and is located within a previously developed site for the existing wastewater treatment plant. Therefore, the requirements of the Farmland Protection Policy Act (7 U.S.C. §§ 4201-4209) do not apply. Also, the project is not located in or near any Wilderness areas; therefore, the requirements of 16 U.S.C. § 1131 do not apply.

- *Air Quality*

Possible short-term impacts. Potential emissions and dust may occur during project construction, though this will be temporary in nature and potential impacts will be minimized through best management practices. The project is not located in a nonattainment or maintenance area for any relevant air pollutants; therefore, the project is not subject to a conformity determination.

- *Noise and Vibration*

Possible short-term impacts. Noise and vibration impacts due to the construction of the proposed improvements are expected to be temporary in nature and typical for this type of improvement. The impact would be localized at the point of construction and would be temporary in nature.

- *Geological and Soil Resources*

Possible short-term impacts. Soil erosion and sediment control best management practices are proposed to mitigate the results of erosion due to construction activities; no significant permanent impact is expected.

- *Water Resources*

Floodplains: No permanent anticipated impact. This project involves moving an effluent discharge and increasing the capacity of the treatment plant to treat higher flow levels which will ultimately have a positive impact. The project will not control or modify surface waters; therefore, the requirements of the Fish and Wildlife Coordination Act (16 U.S.C. § 661) do not apply. The project is located near Mill Creek and is located near the creek's 100-year floodplain. The project area is somewhat developed and consists mixed forest and nearby low intensity development. The new above-ground structures would not significantly impact, impede, or redirect flood flows. Additional ground disturbing or excavation activities will be minimal, and the areas will be returned to pre-construction conditions. Based on these considerations, the proposed project is not anticipated to result in a negative impact to the natural and beneficial floodplain values. Therefore, the project is anticipated to conform to Executive Order No. 11988 (1977), as amended by Executive Order No. 12148 (1979).

A NPDES permit modification is required by the West Virginia Department of Environmental Protection (WVDEP) prior to commencing operation. On June 22, 2023, the WVDEP issued a wasteload allocation memo for 500,000 gpd to the town for this proposed project.

Wetlands: The National Wetlands Inventory Wetlands Mapper, operated by the U.S. Fish and Wildlife Service (USFWS), shows no wetlands, waters of the U.S., or Section 10 waters within the proposed project area. A letter was submitted to the U.S. Army Corps of Engineers (USACE) on August 23, 2016, to request a review of wetlands in the project area and guidance on any specific permits that will be required. The USACE responded on August 29, 2016, stating that a Department of Army authorization may be required, and further evaluation is needed. The Department of Army authorization is not applicable at this design stage but it will be obtained prior to the approval of plans and specifications.

Additionally, no sole source aquifers exist at or near the project location nor is the project located within the coastal zone/barriers; therefore, the requirements of the 42 U.S.C. §§ 300F-300J-26, 16 U.S.C. §§ 1451-1466 and 3501-3510 do not apply. There are no Wild and Scenic Rivers within the project area; therefore, the requirements of 16 U.S.C. §§ 1271-1287 do not apply. This project also is not located within an essential fish habitat. Therefore, the requirement of 16 U.S.C. §§ 1801-1891 do not apply.

- *Biological Resources*

An endangered species list was verified using the USFWS's Information for Planning and Consultation (IPaC) system on February 18, 2025. The project is not expected to affect federally listed threatened or endangered species, however the following species are present: Mammals – Gray Bat (endangered), Indiana Bat (endangered), Northern Long-eared Bat (endangered), Tricolored Bat (proposed endangered), Virginia Big-eared Bat (endangered); Clams – Pink Mucket (endangered), Sheepnose Mussel (endangered),

Snuffbox Mussel (endangered) Spectaclecase (endangered); Insects – Monarch Butterfly (proposed threatened); and Flowering Plants – Virginia Spiraea (threatened). There are no critical habitats within the project area.

The proposed activity does not involve capture, transport, exhibition, collection, control or disturbance of eagles or eagle parts, nests, or eggs. Additionally, no construction is expected to occur in close proximity to eagle nests; therefore, the requirements of 16 U.S.C. §§ 668-668C do not apply. This project does not involve the taking, killing, possession, transportation, or importation of migratory birds, their eggs, parts, or nests. Beneficial practices to avoid and minimize the incidental take of migratory birds, including best management practices and conservation measures will be implemented when necessary; therefore, this project would not be in conflict with 16 U.S.C. §§ 703-712. Additionally, the project will not affect marine mammals; therefore, the requirements of the Marine Mammal Protection Act (16 U.S.C. §§ 1361-1407) do not apply.

The USFWS issued a no effect determination for the Northern Long-eared Bat and Tricolored Bat, as well as the remaining species listed in this section. The official species list for the project site pursuant to Section 7 of the Endangered Species Act is also included in the Appendix.

- *Cultural Resources and Historic Properties*

The project does not appear to be in or cause impacts to Indian country. All tribes within EPA Region 3 have been notified of the project and were given an opportunity for consultation. No additional consultation was requested.

The EPA reviewed the National Register of Historic Places, and no nearby historical sites were identified. In a letter to the engineer, dated February 7, 2024, the West Virginia Department of Arts, Culture, and History stated that there are no architectural properties eligible for, or included in, the National Register of Historic Places located within the proposed project's direct or indirect area of potential effects. There are also no previously recorded archaeological resources located within the proposed project area. The proposed ground disturbing activities will be confined to previously disturbed areas within the existing plant property.

The proposed activity is not located on federal or Indian lands; therefore, the requirements of the Archaeological Resources Protection Act (16 U.S.C. §§ 470AA-MM) do not apply. The project is also not located on Indian or Native Hawaiian lands where Native American human remains, funerary objects, sacred objects, and cultural items may be present; therefore, the requirements of 25 U.S.C. § 3001 do not apply.

- *Transportation and Traffic*

Possible short-term impacts. Temporary moderate traffic increases are anticipated consistent with projects of this type; however, long-term impacts are unlikely – no significant impact is expected. The impacts during construction will be minimized and will be restored back to their pre-existing conditions.

V. Coordination/Public Participation

A formal public meeting for the project was held on March 28, 2024, and the project has been discussed at length at the City Council and Sanitary Board meetings. During the public meeting, The Thrasher Group explained the necessary upgrades identified for the current treatment plant and sewer line issues throughout the Town and addressed comments.

VI. Appendix

1. Preliminary Engineering Report dated May 10, 2023, by The Thrasher Group, Inc., "Proposed Existing Wastewater Treatment Plant Upgrade"
2. Facilities Plan dated December 2, 2024, by the Thrasher Group, Inc "Phase 2: Existing Wastewater Treatment Plant Upgrade"
3. West Virginia Department of Arts, Culture, and History letter dated February 7, 2024
4. West Virginia Division of Natural Resources letter dated January 12, 2024
5. West Virginia Department of Environmental Protection Waste Load Allocation 7329 dated June 22, 2023
6. United States Fish and Wildlife Service correspondence dated February 18, 2025; Project code: 2025-0057797