West Virginia Development Office
Community Development Division
Capitol Complex
Building 6 Room 553
Charleston, WV 25305-0311
http://www.wvcommerce.org/people

Environmental Assessment
Determinations and Compliance Findings
for HUD-assisted Projects
24 CFR Part 58

Project Information

Project Name: *Town of Clay Sanitary Sewer Facility Rehabilitation*

Project Number: *HUD Grant Number: B-16-DL-54-001 Project Number: CDBG-DR 2101*

HEROS Number: *n/a*

Grantee (Responsible Entity)**:** *WV Department of Economic Development*

Grantee Address: *1900 Kanawha Boulevard East, Building 3, Suite 700, Charleston, WV 25305*

Grantee Phone: *(800) 982-3386*

Certifying Officer: *Jennifer Ferrell, Director WVCAD*
(Local Elected Official and Title)

Preparer/Lead Agency: *SoJuana Ellis, Project Administrator*

Preparer Address: *Regional Intergovernmental Council*
315 D Street
South Charleston, WV 25303

Preparer Phone: *(304) 744-4258*

Project Engineer (if applicable)**:** *Fred Hypes, PE, PS*

Engineering Company: *Dunn Engineers, Inc., 400 South Ruffner Rd, Charleston, WV, 25314*

Direct Comments to: *RE: Jennifer Ferrell*

Project Location:

This project is located on the banks of the Elk River at 550 Cherokee Drive, Clay, WV, 25043. Coordinates are 38 26'52 N 81 05'19 W. Included in the project are the 5 satellite pump stations, these locations are listed within ATTACHMENT A.

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**

The project will include upgrading five (5) existing pump stations, smoke testing the existing collection system and upgrading the existing 0.2 MGD wastewater tretment plant (WWTP). This will be Phase I of a two-phase project, whereas Phase II will involve additional upgrades to the WWTP and collection system upgrades to reduce infiltration and inflow. Both phases of the project would take place entirely on existing rights of way of facility sites which were disturbed by previous construction. Any potential creek or river crossings during Phase II would be done with directional drill so as not to disturb the stream bottoms.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]**:**

The plant, as well as all of the pump stations, were inundated in the flood of June 2016, resulting in damage to the electrical and mechanical equipment and access to roads, as well as filling sewer mains and pump stations with silt, sand, and debris. The purpose of this project is to rehabilitate the plant and improve it's resiliency to future severe weather events.

Existing Conditions and Trends [24 CFR 58.40(a)]**:**

The treatment plant is failing. The necessity to move forward in an expeditious manner cannot be overstated from public health, environmental enforcement perspectives, or from resiliency and flood protection perspectives.

HUD Funding Information

Grant Number	HUD Program	Funding Amount
B-16-DL-54-001	*CDBG Disaster Recovery*	*$ 5,000,000.00*

Estimated Total HUD Funded Amount: *$ 5,000,000.00*

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:** ***$ 7,091,500.00***

Funding Source	Date Committed	Funding Amount
WVDEP		*$ 1,047,500.00*
WViJDC		*$ 1,044,000.00*

TOWN OF CLAY SCOPE OF WORK

The project will include upgrading five (5) existing pump stations, smoke testing the existing collection system and upgrading the existing 0.2 MGD wastewater treatment plant (WWTP). This will be Phase I of a two-phase project, whereas Phase II will involve additional upgrades to the WWTP and collection system upgrades to reduce infiltration and inflow. Both phases of the project would take place entirely on existing rights of way or facility sites which were disturbed by previous construction. Any potential creek or river crossings during Phase II would be done with directional drilling so as not to disturb the stream bottoms.

ADDITIONAL INFORMATION

The Town of Clay's sewage collection and treatment system originally benefitted 285 customers, but due to population loss, the system currently serves 259 customers (approximately 500 people within the Town and approximately 450 additional people from commercial establishments and Clay County High School).

The sewage collection system consists of 32,000 LF of 6", 8" and 10" gravity sewer pipe, 10,000 LF of 1-1/2", 3", 6" and 8" force mains, 127 manholes and cleanouts, five (5) duplex sewage pump stations and a 200,000 gpd extended aeration sewage treatment plant. The proposed project will include the replacement of approximately 1,000 LF of existing 10" clay sewer main (by pipe bursting), replacement of four (4) manholes, replacement of existing pumps and controls at the five (5) satellite sewage pump stations, locations are:

 # 1 Two Run Pump Station (Lat: 38' 28'31", Long: 81 4'53"); **#2** WTP Pump Station, (Lat: 38 27'50", Long: 81 4'29"); **#3** Pump Station: (Lat: 38 27'38", Long: 81 5'16.5"); **#4** Junior Gray Pump Station, (Lat 38 27'23", Long 18 5'24"); **#7** High School Pump Station, (Lat: 38 26'43", Long: 81 5'36")

Also, upgrading of the sewage treatment facilities (replacement of electrical and mechanical equipment); emergency generators will also be installed at four (4) of the five (5) pump stations. The treatment plant and pump stations were installed in 1998 (24) years ago), while the sewage collection lines are between 54 and 85 years old.

The electrical and mechanical equipment in the pump stations and at the treatment plant are being replaced because of damage sustained during the June 2016 flood (which was several feet above the 100-year flood elevation) and much of the treatment plant equipment was completely inoperable.

The flooding, in 2016, brought significant amounts of sand and sediments into the 1968 era interceptor and into the sewage pumping stations. The sand has damaged the pumping stations, plugged the interceptors and plugged piping in the wastewater treatment plant.

The sewer system serves the entirety of the Town of Clay (from Clay Junction to the Pisgah Bridge) and the Cherokee Drive/Clay County High School area, which extends approximately one mile downstream of the Town's corporate boundaries. The project does not involve any extensions of service.

TOWN OF CLAY
Wastewater Treatment Upgrade
Clay County, West Virginia

Pump Station No. 1 -- also known as "Two Run Station"
(Lat: 38' 28'31", Long: -81 4'53")

Pump Station No. 2 – also known as "Water Treatment Plant (WTP) Station"
(Lat: 38 27'50", Long: -81 4'29")

Pump Station No. 3 (no other name designated)
(Lat: 38 27'38", Long: -81 5'16.5")

Pump Station No. 4 – also known as "Junior Gray Station"
(Lat 38 27'23", Long -81 5'24")

Pump Station No. 7 – also known as "High School Station"
(Lat: 38 26'43", Long: -81 5'36")

P:\1810-Clay, Town of - WWTP upgrade project\Email\Photos of PS 1_2_3_4_7 09-15-2022

Statutory Worksheet

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for **each** authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references.

Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Runway Clear Zones and Accident Potential Zones 24 CFR Part 51 Subpart D	Yes ☐ No ☑	*The project is not within 15,000 feet of a Military Airport, nor is it within 2,500 feet of a Civilian Airport. See attached Airport Map.*
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☑	*There are no Coastal Barrier Resources in West Virginia. See attached map from the U.S. Fish & Wildlife web page. http://www.fws.gov/cbra/Maps/Mapper.html*
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☑	*Flood insurance is not required for this sanitary sewer facility rehabilitation.*
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☑	*WV DEP letter dated 3/5/2019* *Air pollution from construction would create an adverse effect on the environment. The impact would be localized at the point of construction and would be temporary in nature,with no long term adverse effects.* *See Dunn PER, page 18/19, section E and J*
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☑	*West Virginia has no Coastal Zone Management Areas. See attached map. Data obtained from USGS.*
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☑	*No contamination and toxic substances involved*

Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☑	*DNR Letter dated 4/5/22* *There are no known records of any, threatened and endangered (RTE) species on the project site.*
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☑	*Explosive and Flammable Hazards are not involved.*
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☑	*No Farmland located in project area. As seen from the attached photograph, the pumping station site is in a rural residential area; it is not farmland. (see attached photo)*
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☑ No ☐	*New components will be installed 2 feet above the 100 year base flood elevation.*
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☑	*SHPO letter, dated 3/21/22.* *The project will not affect any architectural resources or historic districts eligible for or listed in the National Register. There are no previously recorded archaeological sites located within the proposed project area.*
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☑	*Temporary in nature with no long term adverse effects.* *(See Dunn PER, page 18, section E).*
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☑	*There are no Sole Source Aquifers in West Virginia. See attached map with data information from the U.S. EPA web page.* *http://catalog.data.gov/dataset/national-sole-source-aquifer-gis-layer*
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☑	*WV DOI letter, dated 2/27/2019* *"No effect" determination that the project will not affect federally listed endangered or threatened species.*
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☑	*The Elk is not a designated Wild and Scenic River.* *(See attached map)*
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☑	*Will not be affected by project.*

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans / Compatible Land Use and Zoning / Scale and Urban Design	2	*Upgrading sewage pumping stations. No change to site location or service area.*
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	*n/a*
Hazards and Nuisances including Site Safety and Noise	2	*n/a*
Energy Consumption	1	*Pumping stations will be equipped with variable frequency drives to lower energy consumption.*

Environmental Assessment Factor	Impact Code	Impact Evaluation
SOCIOECONOMIC		
Employment and Income Patterns	2	*No changes to service area or to number of sewer customers.*
Demographic Character Changes, Displacement	2	*n/a work will be limited to existing sewage collection infrastructure.*

Environmental Assessment Factor	Impact Code	Impact Evaluation
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	*n/a*
Commercial Facilities	1	*Improved reliability of sanitary sewer system.*
Health Care and Social Services	2	*n/a*
Solid Waste Disposal / Recycling	2	*n/a*
Waste Water / Sanitary Sewers	1	*Improved reliability of sanitary sewer system.*
Water Supply	1	*Reduction of sanitary sewer system overflows upstream of water plant intake.*
Public Safety - Police, Fire and Emergency Medical	2	*n/a*
Parks, Open Space and Recreation	1	*Reduction of sanitary sewer overflow into Elk River.*
Transportation and Accessibility	2	*n/a*

Environmental Assessment Factor	Impact Code	Impact Evaluation
NATURAL FEATURES		
Unique Natural Features, Water Resources	1	*Reduction of sanitary sewer overflow into Elk River*
Vegetation, Wildlife	2	*n/a*
Other Factors	2	*n/a*

Additional Studies Performed:

Preliminary Engineering Report (analysis of existing sanitary sewer system and environmental assessment) prepared for WVDEP and WVIJDC.

Field Inspection (Date and completed by):

Dunn Engineering, Inc. (consulting engineer for the Town of Clay). Numerous visits during 2018, 2019, 2021. There are no material changes to the site between 2018-2021 and no material changes to the project scope.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

WVDEP (Katheryn Emery PE; Jessee Rype) WV Division of Culture, History, and the Arts (Carolyn Kinder), Sigra Workman (USACE) Barbara Sargent (WV Department of Natural Resources) Pam Kindrick (WVDEP)

List of Permits Obtained:

WVDEP (WVNPDES Permit), WV Division of Highways

Public Outreach [24 CFR 50.23 & 58.43]:

Public Meeting formally advertised and held at Town of Clay's Town Hall on June 27, 2019
1st Flood Ad/Early Notice: 4/22/22 - End public comment period 5/9/22
2nd Flood Notice/FONSI: 6/24/22 - End public comment period 7/28/22

Cumulative Impact Analysis [24 CFR 58.32]:

n/a

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]

Replace broken and non functional equipment, piping and appurtenances, to return system to a state of acceptable reliability.

No Action Alternative [24 CFR 58.40(e)]:

Evaluated, but found unacceptable, because of water quality impacts and violations of the WV NPDES permit.

Summary of Findings and Conclusions:

The project will have no adverse impacts on the environment in and around the Town of Clay, WV.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
n/a	

Determination:

☑ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: _____ Date: 24 October 2022

Name, Title: Frederick Hypes, PEPS VP

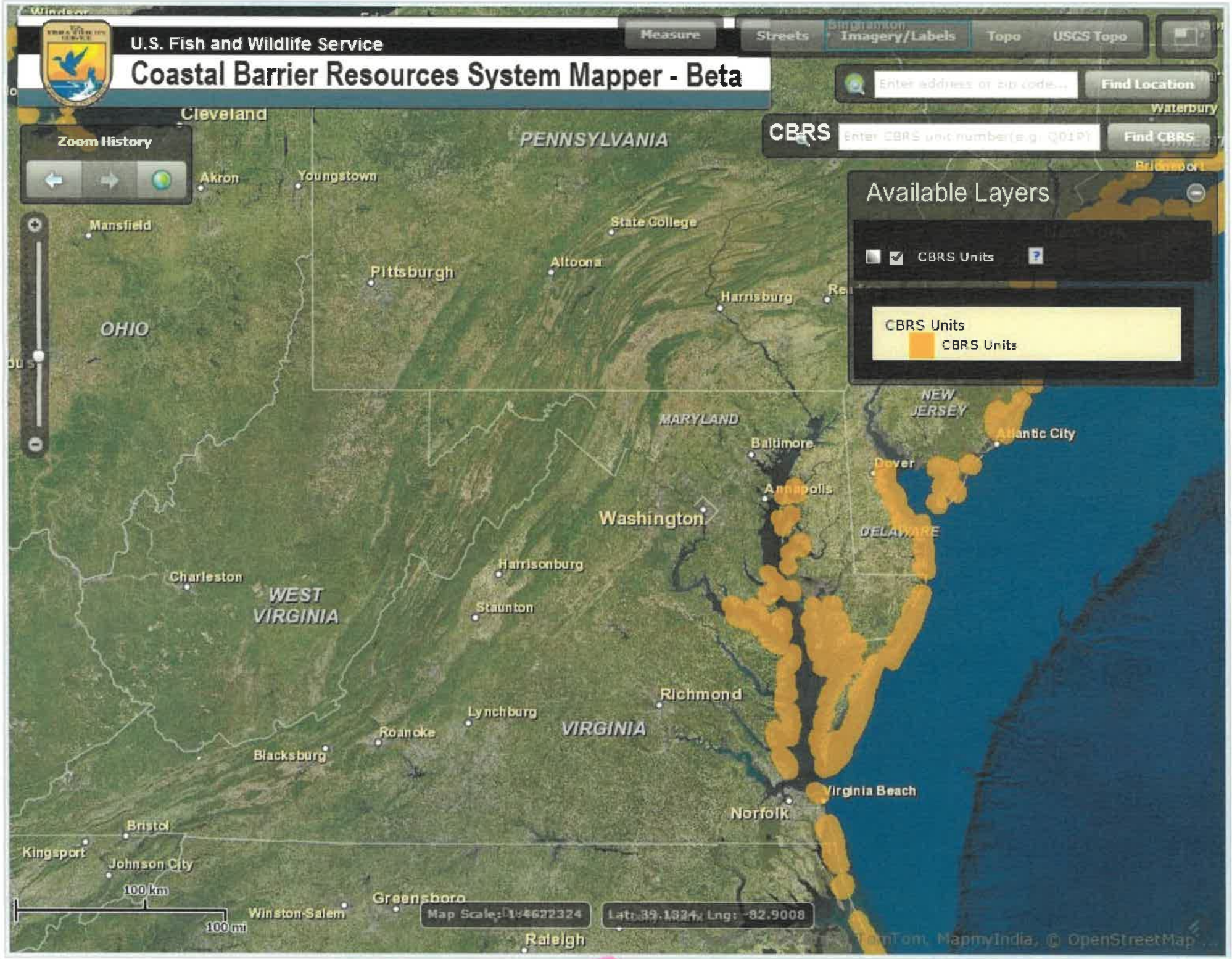
Organization: Dunn Engineers, Inc

Responsible Entity
Certifying Officer Signature: _____ Date: 10.21.2022

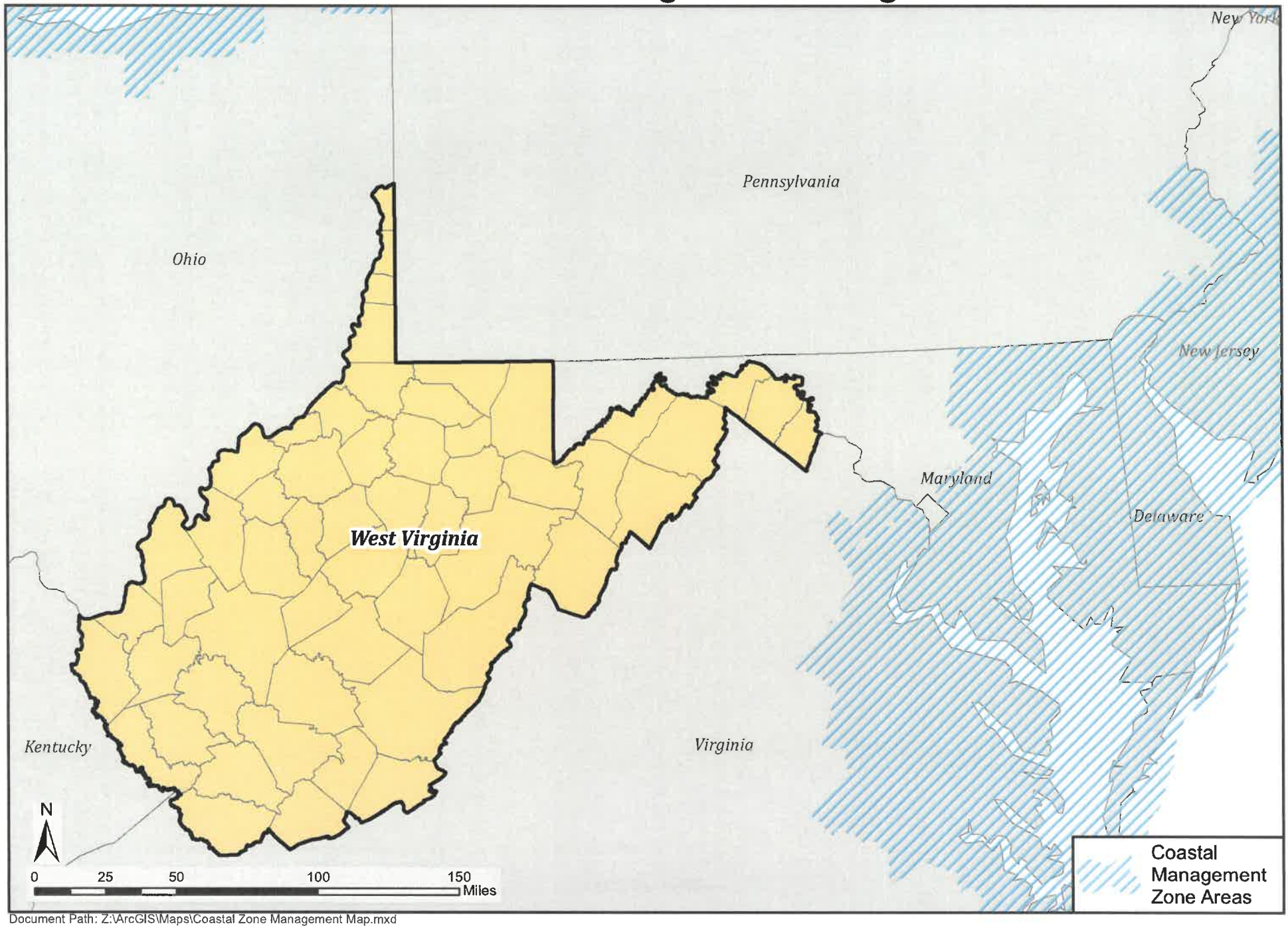
Name, Title: Jennifer Ferrell, Director WVCAD

Organization: WV Department of Economic Development

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

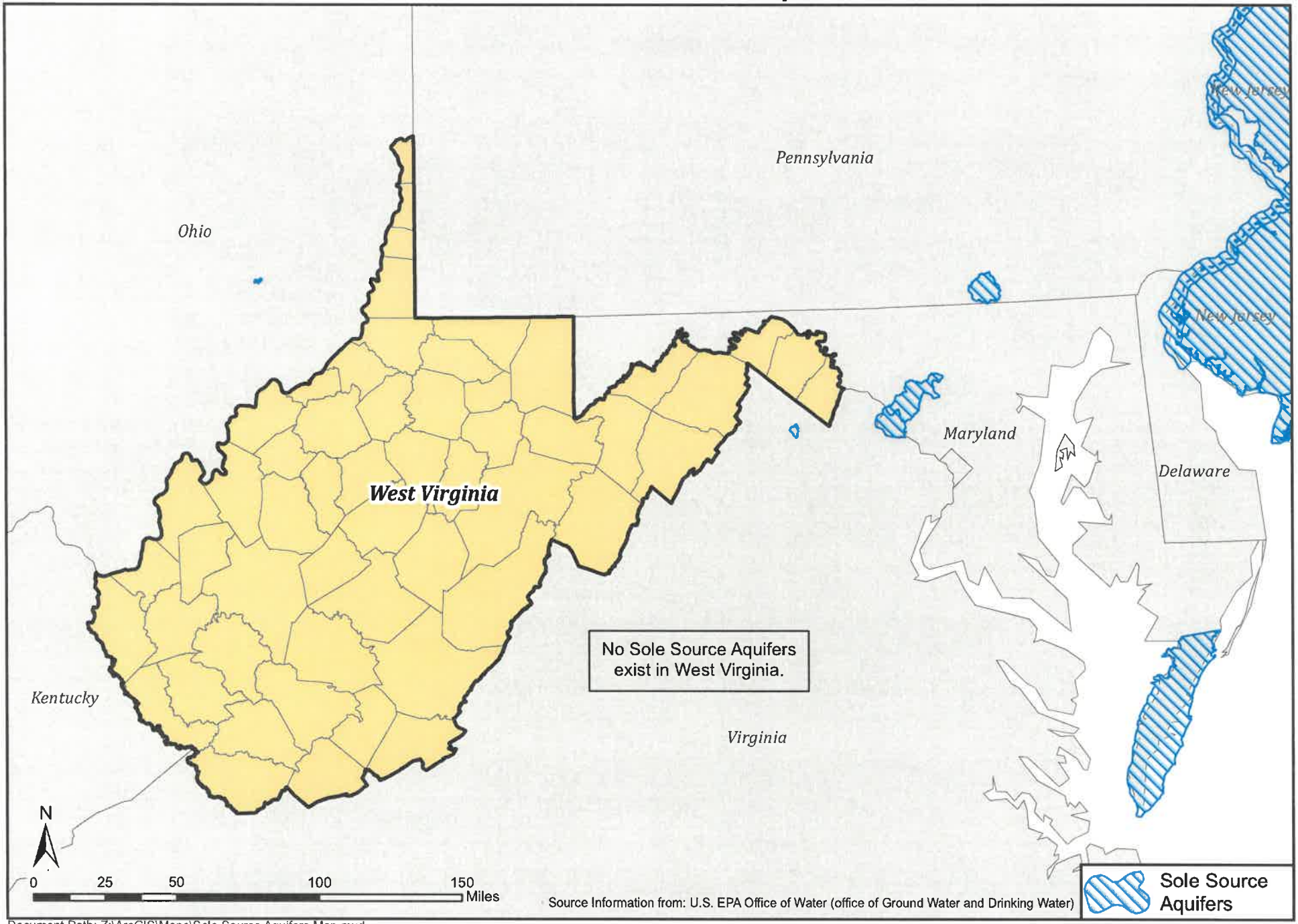

U.S. Fish and Wildlife Service
Coastal Barrier Resources System Mapper - Beta
Measure
Streets
Imagery/Labels
Topo
USGS Topo
Find Location
Zoom History
CBRS
Find CBRS
Available Layers
CBRS Units
CBRS Units
CBRS Units
Cleveland
PENNSYLVANIA
Akron
Youngstown
Mansfield
State College
Pittsburgh
Altoona
Harrisburg
OHIO
MARYLAND
NEW JERSEY
Baltimore
Atlantic City
Dover
Annapolis
Washington
DELAWARE
Harrisonburg
Charleston
WEST VIRGINIA
Staunton
Richmond
Lynchburg
VIRGINIA
Roanoke
Blacksburg
Virginia Beach
Norfolk
Bristol
Kingsport
Johnson City
100 km
100 mi
Greensboro
Winston-Salem
Raleigh
Map Scale:
Lat: 39.1824, Lng: -82.9008
TomTom, MapmyIndia, © OpenStreetMap

U.S. Coastal Zone Management Program Areas



Document Path: Z:\ArcGIS\Maps\Coastal Zone Management Map.mxd

U.S. Sole Source Aquifers

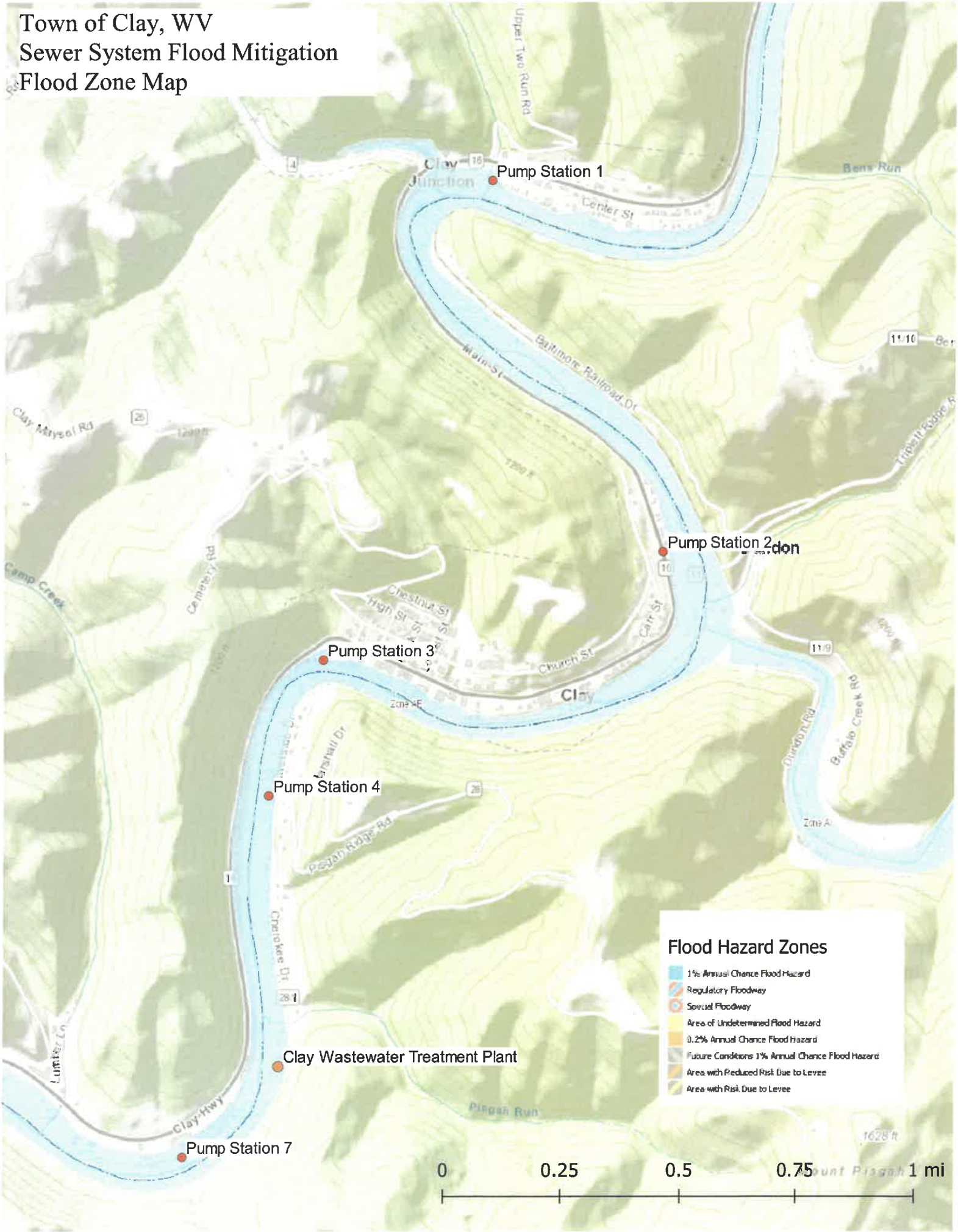


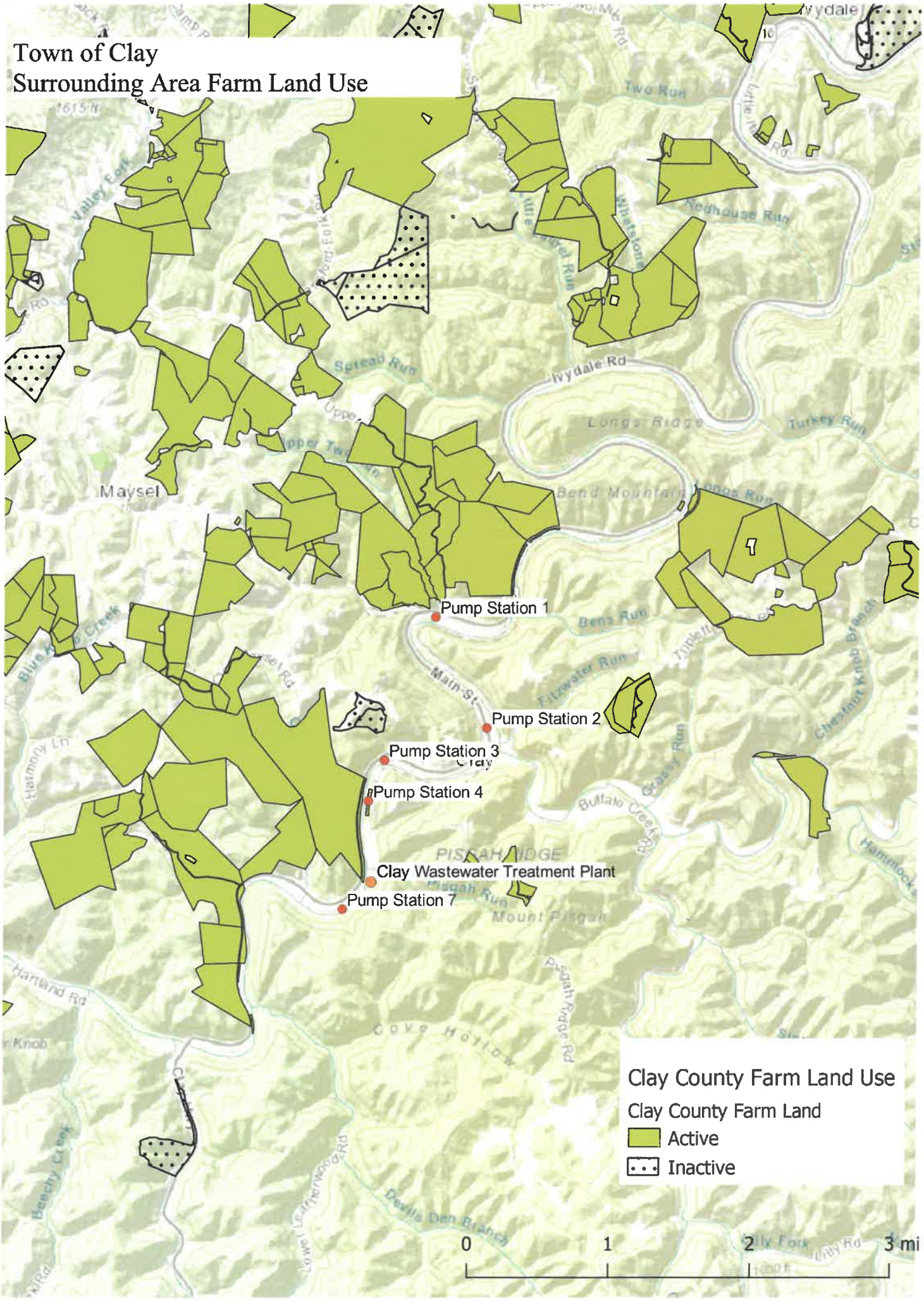
Document Path: Z:\ArcGIS\Maps\Sole Source Aquifers Map.mxd

Town of Clay, WV
Sewer System Flood Mitigation
Project Location in Relation to Airport

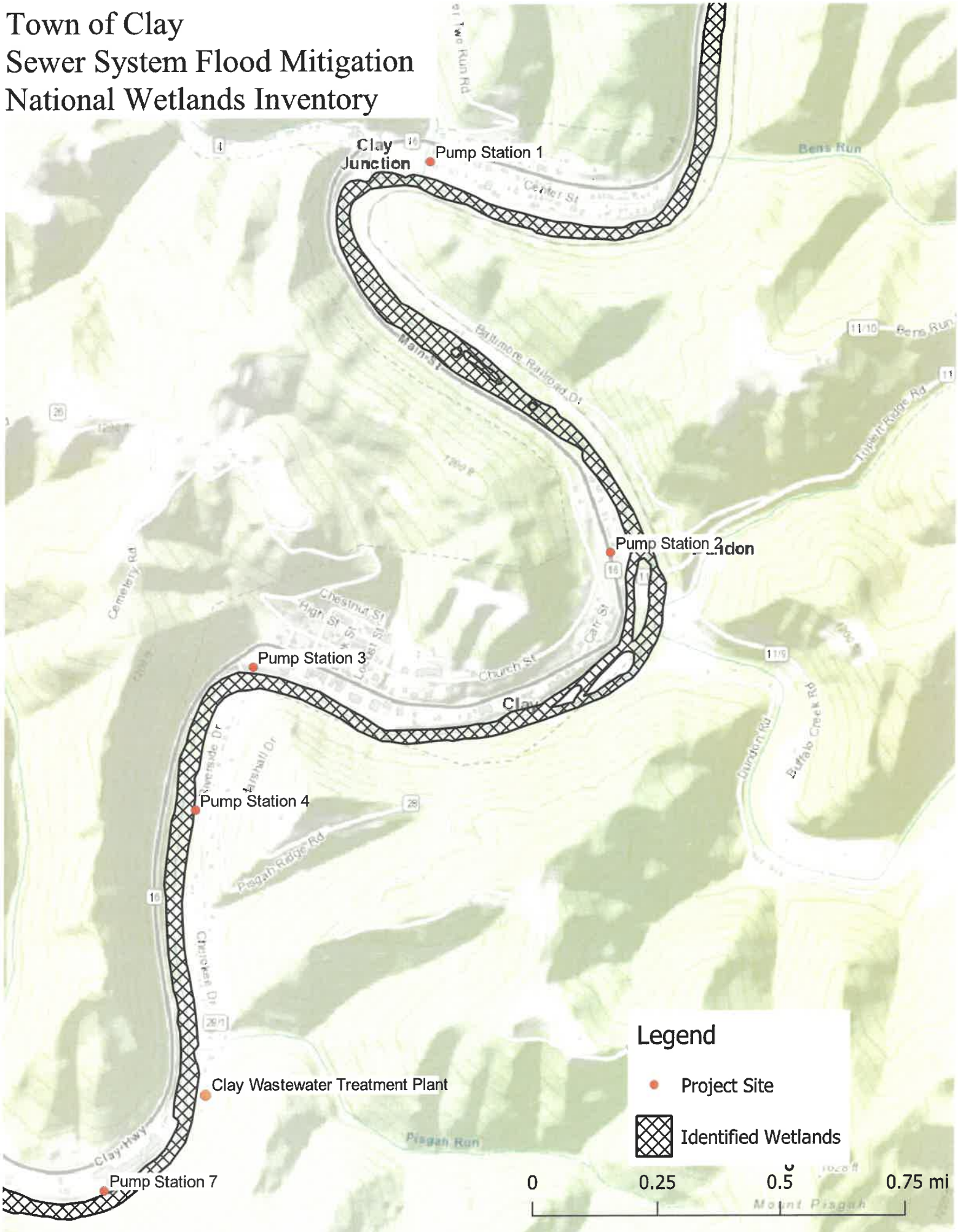

Untitled Map
Write a description for your map.
Town of Clay
Riverside Dr
Town of Clay
Jr. Gray AS
0.21 Acres
Google Earth

Town of Clay, WV
Sewer System Flood Mitigation
Flood Zone Map

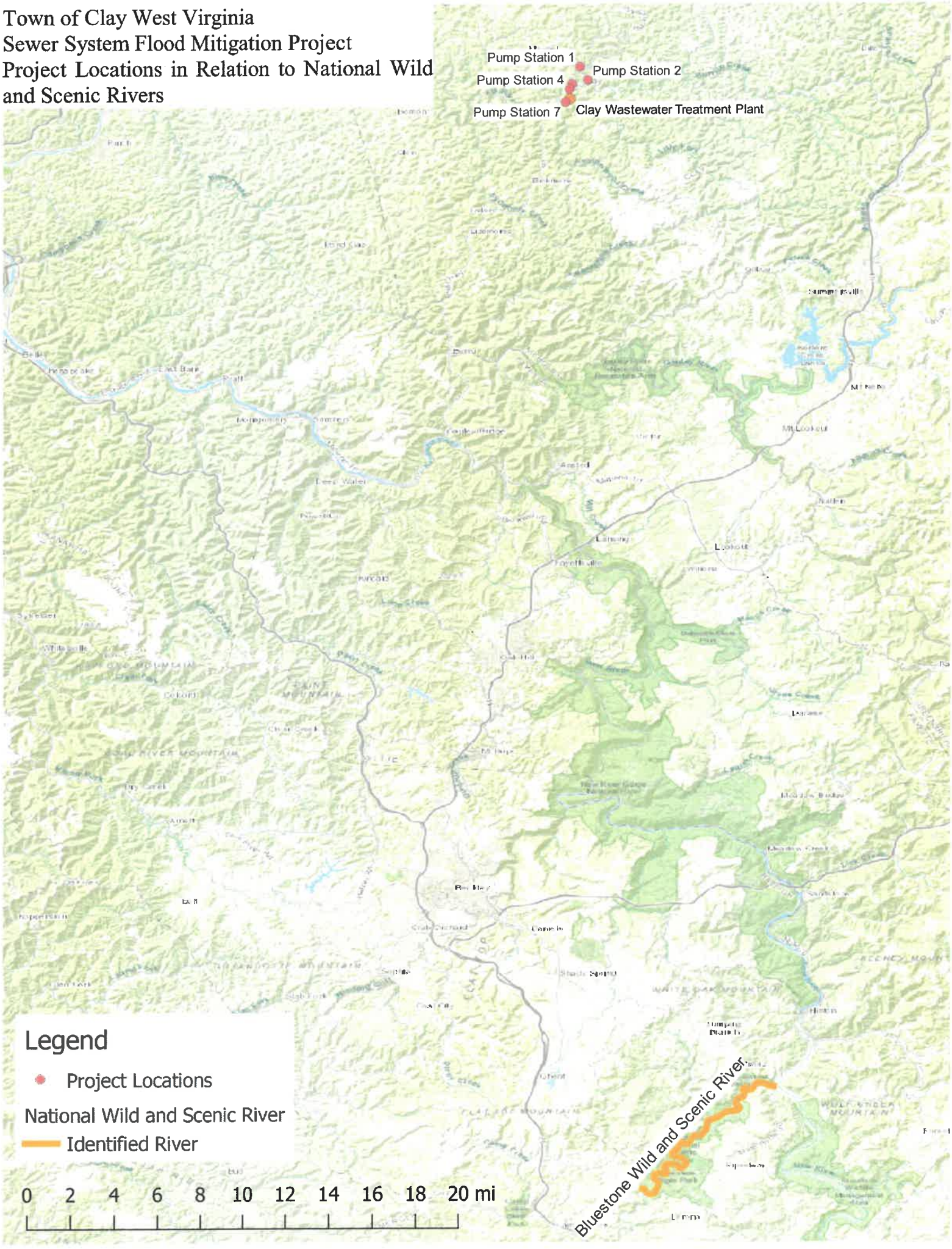



Town of Clay
Surrounding Area Farm Land Use
Pump Station 1
Pump Station 2
Pump Station 3
Pump Station 4
Clay Wastewater Treatment Plant
Pump Station 7
Maysel
Ivydale Rd
Two Run
Spread Run
Longs Ridge
Bens Run
Fitzwater Run
Buffalo Creek Rd
Mount Pisgah
Cove Hollow
Hartland Rd
Clay County Farm Land Use
Clay County Farm Land
Active
Inactive
0
1
2
3 mi

Town of Clay
Sewer System Flood Mitigation
National Wetlands Inventory



Town of Clay West Virginia
Sewer System Flood Mitigation Project
Project Locations in Relation to National Wild and Scenic Rivers



SHPO

West Virginia Department of
ARTS, CULTURE
AND HISTORY

The Culture Center
1900 Kanawha Blvd. E.
Charleston, WV 25305-0300

Randall Reid-Smith, Curator
Phone 304 558 0220 | www.wvculture.org
Fax 304 558 [illegible] | TTY 304 558 3563
[illegible]

March 21, 2022

Mr. Frederick L. Hypes, PE, PS
Dunn Engineers, Inc.
400 South Ruffner Road
Charleston, WV 25314
Email: dunneng@aol.com

RE: Town of Clay – Sewage Collection & Treatment System Upgrade (Phase II)
FR#: 19-549-CY-1

Dear Mr. Hypes:

We have reviewed the additional information submitted for the above-mentioned project to determine its effects to cultural resources. As required by Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

According to the submitted information, the proposed sanitary sewer system project for the Town of Clay has been revised. The project has been revised to no longer require any creek or river, the proposed line replacements will occur exactly where the old lines are, and all work will be confined to the existing trenches with no new ground disturbance proposed.

Architectural Resources:
We have reviewed the additional information, and as noted in our initial review letter dated April 1, 2019, the Old Clay County Courthouse (NR# 79002573), which was listed in the National Register of Historic Places in 1979, is approximately 300 feet north of the nearest portion of the proposed project area. It remains our opinion that the proposed project to improve the sanitary sewer system has no potential to affect this resource. In addition, based on the additional information, we remain in concurrence that the proposed project will not affect any architectural resources or historic districts eligible for or listed in the National Register. No further

consultation is necessary regarding architectural resources; however, we do ask that you contact our office if your project should change.

Archaeological Resources:
As we noted in our April 1, 2019 correspondence, there are no previously recorded archaeological sites located within the proposed project area. Submitted information indicates that a majority of the proposed Phase II project activities will be confined to previously disturbed areas and/or existing rights-of-way. Therefore, it is unlikely that significant intact deposits will be encountered during the proposed Phase II project activities. As a result, it is our opinion that Phase II of the proposed sanitary sewer system upgrade project will have no effect on archaeological historic properties. No further consultation is necessary regarding archaeological resources. However, if intact cultural materials are encountered during construction, cease all activity within the area of discovery and contact this office immediately.

We appreciate the opportunity to be of service. If you have questions regarding our comments or the Section 106 process, please contact Benjamin M. Riggle, Structural Historian, or Carolyn M. Kender, Archaeologist, at (304) 558-0240.

Sincerely,

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/CMK/BMR

Env.
Corresp
1840

WEST VIRGINIA
Division of Culture and History

The Culture Center
1900 Kanawha Blvd., E.
Charleston, WV 25305-0300
Randall Reid-Smith, Commissioner
Phone 304.558.0220 • www.wvculture.org
Fax 304.558.2779 • TDD 304.558.3562
EEO/AA Employer

April 1, 2019

RECEIVED

APR 05 2019

DUNN ENGINEERS, INC.

Mr. Ethan Gartin, EI
Dunn Engineers, Inc.
400 South Ruffner Road
Charleston, WV 25314

RE: Town of Clay – Sewage Collection & Treatment System Upgrade
FR#: 19-549-CY

Dear Mr. Gartin:

We have reviewed the above referenced project to determine potential effects on cultural resources. As required by Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations, 36 CFR 800: "Protection of Historic Properties," we submit our comments.

According to the submitted information, the Town of Clay proposes to upgrade their sanitary sewer system. The project will be conducted in two phases. Phase I will involve upgrading five existing pumping stations, smoke testing the existing collection system, and upgrading the existing 0.2 MGD wastewater treatment plant. If it is determined that the existing pumping stations will need replacement, then they will be rebuilt at the same location. Phase II will involve additional upgrades to the wastewater treatment plant and collection system upgrades to reduce infiltration and inflow.

Architectural Resources:
We have reviewed the submitted information and determined that the Old Clay County Courthouse (NR# 79002573), which was listed in the National Register of Historic Places in 1979, is approximately 300 feet north of the proposed project area. It is our opinion that the proposed project to improve the sanitary sewer system has no potential to affect this resource. In addition, based on the included photographs, the proposed upgrades to the existing pumping stations and/or reconstruction of new pumping stations on the existing pumping station locations, smoke testing, and upgrades to the wastewater treatment plant will not affect any architectural resources eligible for or listed in the National Register. No further consultation is necessary regarding architectural resources; however, we do ask that you contact our office if your project should change.

Archaeological Resources:
A search of our records located no previously recorded archaeological sites within the proposed project area. Submitted information indicates that a majority of the proposed Phase I project activities will be confined to previously disturbed areas and/or existing rights-of-way. Therefore, it is unlikely that significant intact deposits will be encountered during the proposed Phase I project activities. As a result, it is our opinion that Phase I of the proposed sanitary sewer system upgrade project will have no effect on archaeological historic properties. No further consultation is necessary regarding Phase I of the project.

However, we require additional information on proposed Phase II activities. The submitted information states that Phase 2 may involve creek or river crossings executed via directional drilling. Also, we understand that Phase 2 may involve the installation of replacement lines. Please mark the locations of the proposed creek or river crossings as well as the proposed replacement line locations on a USGS topographic quadrangle map. Clarify whether the replacement lines will be placed within existing trenches or require new trenches. We will provide further comment on Phase 2 of the proposed sanitary sewer upgrade project upon receipt of the requested information; however, we reserve the right to request a Phase I archaeological survey upon review of this information.

We appreciate the opportunity to be of service. If you have questions regarding our comments or the Section 106 process, please contact Benjamin M. Riggle, Structural Historian, or Carolyn M. Kender, Archaeologist, at (304) 558-0240.

Sincerely,

Susan M. Pierce

Susan M. Pierce
Deputy State Historic Preservation Officer

SMP/CMK/BMR

DUNN ENGINEERS, INC.

February 27, 2019

Ms. Susan M. Pierce
Deputy State Historic Preservation Officer
for Resource Protection
WV Division of Culture and History
The Culture Center
1900 Kanawha Boulevard, East
Charleston, WV 25305-0300

RE: Town of Clay
Clay County, WV
Sewage Collection & Treatment
System Upgrade

Dear Ms. Pierce:

The Town of Clay (Clay County, West Virginia) is planning to upgrade their sanitary sewer system, as outlined on the enclosed map and photographs.

The project will include upgrading five existing pumping stations, smoke testing the existing collection system, and upgrading the existing 0.2 MGD wastewater treatment plant (WWTP). This will be Phase I of a two-phase project, whereas Phase II will involve additional upgrades to the WWTP and collection system upgrades to reduce infiltration and inflow. Both phases of the project would take place entirely on existing rights of way or facility sites which were disturbed by previous construction. Any potential creek or river crossings during Phase II would be done with directional drilling so as not to disturb the stream bottoms.

Dunn Engineers, Inc. requests that the Division of Culture and History review the project to determine any effects to cultural resources as required by the National Historic Preservation Act as amended. Please indicate whether any known historical, architectural, or archaeological sites listed on or eligible for inclusion in the National Register of Historic Places will be affected by this project.

Should you have any questions or require additional information, please contact our office. Your assistance is greatly appreciated.

Sincerely,

DUNN ENGINEERS, INC.

Ethan W. Gartin, EI

sz

Enclosures

400 SOUTH RUFFNER ROAD • CHARLESTON, WEST VIRGINIA 25314 • TEL (304) 342-3436 • FAX (304) 342-7823
•EMAIL: dunneng@aol.com•

USDOI

United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
90 Vance Drive
Elkins, West Virginia 26241

Contact Name: Ethan Gartin

Email Address or Fax Number: dunneng@aol.com

FWS File # 2019-I-0444 **All future correspondence should clearly reference this FWS File #.**

Project: Town of Clay Sewage Collection & Treatment, Phase I, Clay County, WV

Date of Letter Request: February 27, 2019

This is in response to your letter requesting threatened and endangered species information in regard to the proposed project listed above. These comments are provided pursuant to the Endangered Species Act (ESA, 87 Stat. 884, as amended; 16 U. S. C. 1531 *et seq.*).

We have made a "no effect" determination that the project will not affect federally listed endangered or threatened species. Therefore no biological assessment or further section 7 consultation under the ESA is required with the Fish and Wildlife Service. Should project plans change or amendments be proposed that we have not considered in your proposed action, or if additional information on listed and proposed species becomes available, or if new species become listed or critical habitat is designated, this determination may be reconsidered.

Definitive determinations of the presences of waters of the United States, including wetlands, in the project area and the need for permits, if any, are made by the U.S. Army Corps of Engineers. They may be contacted at Huntington District, Regulatory Branch, 502 Eighth Street, Huntington, West Virginia, 25701, telephone (304) 399-5710.

Amanda Murnane Date: 4/18/2019
Biologist

John E. Schmidt Date: 4/19/2019
Field Supervisor

Updated April 2018

1810

Env. Comp

From: Murnane, Amanda <amanda_murnane@fws.gov>
To: dunneng <dunneng@aol.com>
Subject: Re: [EXTERNAL] Re: Town of Clay Sewage Collection and Treatment System Upgrade
Date: Wed, May 1, 2019 7:36 am
Attachments: 2019-I-0444.pdf (234K)

Good morning Ethan,

Please see our attached response for Phase I.

Thank you,
Amanda (Selnick) Murnane
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
West Virginia Field Office
90 Vance Drive
Elkins, WV 26241
304-636-6586 x 24
amanda_murnane@fws.gov *(Please note the change in email address)*
http://www.fws.gov/westvirginiafieldoffice/index.html

On Wed, Apr 17, 2019 at 7:51 AM Murnane, Amanda <amanda_murnane@fws.gov> wrote:
Hi Ethan,

Thank you for the information. Because you have not developed project plans for Phase II (as they are contingent on the results of Phase I), I will only be able to provide technical assistance on listed species for Phase I of this project. When you have developed plans for Phase II, please submit them to this office for further review. I will provide a tracking number when I provide our response on Phase I.

Thank you,
Amanda (Selnick) Murnane
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
West Virginia Field Office
90 Vance Drive
Elkins, WV 26241
304-636-6586 x 24
amanda_murnane@fws.gov *(Please note the change in email address)*
http://www.fws.gov/westvirginiafieldoffice/index.html

On Thu, Apr 11, 2019 at 10:09 AM <dunneng@aol.com> wrote:
Amanda,

Phase I involves field investigation of the Town's system in order to determine what particular issues need to be addressed. We do however anticipate most, if not all construction activities will be internal maintenance in nature with very little to no earth disturbing activities.

Should earth disturbing activities occur, they will be in accordance with the WVDEP's Erosion and Sediment Control BMP manual. The most recent iteration of WVDEP's Construction Stormwater General Permit requirements are quite stringent, to say the least. That being said, most probable, specific BMP's usually involve silt fence, rock check dams, coir wattles, and the like. There are no planned actual "river crossing" activities, and a minimum 50 foot vegetative buffer exists between probably work sites and the Elk River.

Phase II is based upon the previous phase and is undetermined at this point regarding specific activities. A plan for an inadvertent release of drilling fluids is not applicable as there is no drilling anticipated for this project at this time. A specific requirement of the aforementioned "General Permit" is that the contractor develop a "Groundwater Protection Plan" subject to approval from the WVDEP, in addition to the "Stormwater Pollution Prevention Plan".

Please let me know if there are any further concerns.

Ethan

Ethan Gartin
DUNN ENGINEERS, INC.
400 South Ruffner Road
Charleston, WV 25314
Phone (304) 342-3436
Fax (304) 342-7823

-----Original Message-----
From: Murnane, Amanda <amanda_murnane@fws.gov>
To: dunneng <dunneng@aol.com>
Sent: Tue, Apr 9, 2019 12:02 pm
Subject: Town of Clay Sewage Collection and Treatment System Upgrade

Hi Ethan,

This project occurs within close proximity to or crosses the Elk River, which provides habitat for 5 federally endangered mussels. For phase I and II, could you please indicate what specific best management practices will be implemented throughout project construction to reduce erosion and sedimentation? Additionally, for Phase II, we ask that you develop and provide a HDD contingency plan in case of an inadvertent release of drilling fluids. This plan should include measures to minimize and contain any potential releases. This may be something that your contractor provides later in the planing process.

Thank you,

Amanda (Selnick) Murnane
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
West Virginia Field Office
90 Vance Drive
Elkins, WV 26241
304-636-6586 x 24
amanda_murnane@fws.gov ***(Please note the change in email address)***
http://www.fws.gov/westvirginiafieldoffice/index.html

Teleworking 4/7 to 4/11; 4/14 to 4/18

DUNN ENGINEERS, INC.

February 27, 2019

Mr. John Schmidt
Field Supervisor
U.S. Fish and Wildlife Service
694 Beverly Pike
Elkins, WV 26241

RE: Town of Clay
Clay County, WV
Sewage Collection & Treatment
System Upgrade

Dear Mr. Schmidt:

The Town of Clay (Clay County, West Virginia) is planning to upgrade their sanitary sewer system, as outlined on the enclosed map.

The project will include upgrading five existing pumping stations, smoke testing the existing collection system, and upgrading the existing 0.2 MGD wastewater treatment plant (WWTP). This will be Phase I of a two-phase project, whereas Phase II will involve additional upgrades to the WWTP and collection system upgrades to reduce infiltration and inflow. Both phases of the project would take place entirely on existing rights of way or facility sites which were disturbed by previous construction. Any potential creek or river crossings during Phase II would be done with directional drilling so as not to disturb the stream bottoms.

Dunn Engineers, Inc. requests that the U.S. Fish and Wildlife Service retrieve and compile information pertaining to federally listed or proposed threatened and/or endangered species for the indicated areas.

Should you have any questions or require additional information, please contact our office. Your assistance is greatly appreciated.

Sincerely,

DUNN ENGINEERS, INC.

Ethan W. Gartin, EI

sz

Enclosure

400 SOUTH RUFFNER ROAD • CHARLESTON, WEST VIRGINIA 25314 • TEL (304) 342-3436 • FAX (304) 342-7823
•EMAIL: dunneng@aol.com•

DNR

Env. Corresp

WEST VIRGINIA DNR

Governor Jim Justice

Director Brett W. McMillion

March 30, 2022

RECEIVED
APR 05 2022
Dunn Engineers, Inc.

Mr. Frederick Hypes
Dunn Engineers, Inc.
400 South Ruffner Road
Charleston, WV 25314

Dear Mr. Hypes:

We have reviewed Natural Heritage Program files for information on rare, threatened and endangered (RTE) species and sensitive habitats for the area of the proposed Sewage Collection and Treatment System Upgrade for the Town of Clay, Clay County, WV.

We have no known records of any RTE species at the project site; however, the Elk River is a federal mussel stream. Any in-stream work will require a mussel survey and coordination with the US Fish and Wildlife Service. The Wildlife Resources Section knows of no recent surveys that have been conducted in the area for rare species or rare species habitat. Consequently, this response is based on information currently available and should not be considered a comprehensive survey of the area under review. This response is valid for two years.

The information provided above is the product of a database search and retrieval. This information does not satisfy other consultation or permitting requirements for disturbances to the natural resources of the state, and further consultation may be required. Additionally, any concurrence requirements for federally listed species must come from the US Fish and Wildlife Service.

Thank you for your inquiry, and should you have any questions please feel free to contact me at the above number, or barbara.d.sargent@wv.gov. An invoice has been forwarded to the Town of Clay.

Sincerely,

Barbara Sargent
Environmental Resources Specialist
Environmental Coordination
Operations Unit

Drive\Invoices\Dunn

DEPARTMENT OF THE ARMY
CORE OF ENGINEERS

DUNN ENGINEERS, INC.

February 27, 2019

Ms. Susan Porter
Huntington District
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, WV 25701

RE: Town of Clay
Clay County, WV
Sewage Collection & Treatment
System Upgrade

Dear Ms. Porter:

The Town of Clay (Clay County, West Virginia) is planning to upgrade their sanitary sewer system, as outlined on the enclosed map.

The project will include upgrading five existing pumping stations, smoke testing the existing collection system, and upgrading the existing 0.2 MGD wastewater treatment plant (WWTP). This will be Phase I of a two-phase project, whereas Phase II will involve additional upgrades to the WWTP and collection system upgrades to reduce infiltration and inflow. Both phases of the project would take place entirely on existing rights of way or facility sites which were disturbed by previous construction. Any potential creek or river crossings during Phase II would be done with directional drilling so as not to disturb the stream bottoms.

Dunn Engineers, Inc. requests that the U.S. Army Corps of Engineers review the project areas to determine if any wetlands, etc. might be affected and provide guidance as to whether any specific permits will be required.

Should you have any questions or require additional information, please contact our office. Your assistance is greatly appreciated.

Sincerely,

DUNN ENGINEERS, INC.

Ethan W. Gartin, EI

sz

Enclosure

400 SOUTH RUFFNER ROAD • CHARLESTON, WEST VIRGINIA 25314 • TEL (304) 342-3436 • FAX (304) 342-7823
•EMAIL: dunneng@aol.com•

1810
Env. Corres

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, HUNTINGTON DISTRICT
502 8TH STREET
HUNTINGTON, WV 25701

March 8, 2019

Regulatory Division
South/Transportation Branch
LRH-2019-229-ELK

Mr. Ethan W. Gartin
Dunn Engineers, Inc.
400 South Ruffner Road
Charleston, West Virginia 25314

Dear Mr. Gartin:

I refer to preliminary information received in this office on March 5, 2019, regarding the proposed Town of Clay Sewage Collection and Treatment System Upgrade located near Clay, in Clay County, West Virginia at approximately latitude 38.459993°N, longitude -81.074563°W. This project has been assigned file number LRH-2019-229-ELK. Please refer to this number in any future correspondence regarding this matter.

The United States Army Corps of Engineers' (Corps) authority to regulate waters of the United States is based on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act (Section 404) requires a Department of the Army (DA) permit be obtained prior to discharging dredged and/or fill material into waters of the United States, including wetlands. Section 10 of the Rivers and Harbors Act of 1899 (Section 10) requires a DA permit be obtained for any work in, on, over or under a navigable water.

Based on your description of the proposed work, and other information available, it appears the project may include the discharge of dredged and/or fill material into waters of the United States. Therefore, under Section 404, a DA authorization may be required. It is the responsibility of the applicant, or the applicant's consultant, to determine the presence and limits of potential waters of the United States, including wetlands, within the project area.

To further evaluate the project additional information is required. Typically, the attached DA permit application form (DA form 4345), completed in accordance with the included instructions, provides the information required to evaluate the proposed project.

If you have any questions regarding DA permit requirements, please contact the South Regulatory Branch at (304) 399-5710.

Sincerely,

WORKMAN.SARAH.M.1052642279

Digitally signed by WORKMAN.SARAH.M.1052642279
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=WORKMAN.SARAH.M.1052642279
Date: 2019.03.08 12:11:42 -05'00'

Sarah M. Workman
Regulatory Project Manager
South/Transportation Branch

Enclosure(s)

DEP

DUNN ENGINEERS, INC.

February 27, 2019

HAND CARRY

WV Department of Environmental Protection
Division of Air Quality
601 57th Street S. E.
Charleston, WV 25304

RE: Town of Clay
Clay County, WV
Sewage Collection & Treatment
System Upgrade

Dear Sir/Madam:

The Town of Clay (Clay County, West Virginia) is planning to upgrade their sanitary sewer system, as outlined on the enclosed map.

The project will include upgrading five existing pumping stations, smoke testing the existing collection system, and upgrading the existing 0.2 MGD wastewater treatment plant (WWTP). This will be Phase I of a two-phase project, whereas Phase II will involve additional upgrades to the WWTP and collection system upgrades to reduce infiltration and inflow. Both phases of the project would take place entirely on existing rights of way or facility sites which were disturbed by previous construction. Any potential creek or river crossings during Phase II would be done with directional drilling so as not to disturb the stream bottoms.

Dunn Engineers, Inc. requests that your office review the project to determine if any air quality would be adversely affected as a result of the project and provide guidance as to whether any specific permits will be required.

Should you have any questions or require additional information, please contact our office. Your assistance is greatly appreciated.

Sincerely,

DUNN ENGINEERS, INC.

Ethan W. Gartin, EI

SZ

Enclosure

400 SOUTH RUFFNER ROAD • CHARLESTON, WEST VIRGINIA 25314 • TEL (304) 342-3436 • FAX (304) 342-7823
•EMAIL: dunneng@aol.com•

1810
Env. Corresp

west virginia department of environmental protection

Division of Air Quality
601 57th Street, SE
Charleston, West Virginia 25304
304 926 0475 FAX: 304 926 0479

Austin Caperton, Cabinet Secretary
dep.wv.gov

March 5, 2019

RECEIVED

MAR 07 2019

DUNN ENGINEERS, INC

Ethan W. Gartin, EI
Dunn Engineers, Inc.
400 South Ruffner Road
Charleston, WV 25314

RE: Town of Clay, Sewage Collection & Treatment System Upgrade
Clay County, WV

Dear Mr. Gartin:

This letter responds to your correspondence of February 27, 2019, concerning the project referenced above. The West Virginia Division of Air Quality (WVDAQ) will only provide feedback on issues relating to air quality. If you determine that your project activity may have other environmental impacts, then you should consult with the appropriate environmental agency for that issue (e.g. the Division of Water and Waste Management should be consulted on potential water quality issues, for instance, if over one (1) acre will be disturbed, a construction stormwater general permit is required).

Based upon current regulatory requirements, the project referenced above as outlined in your letter does not appear to require any pre-construction permits, authorizations, or air quality analyses by WVDAQ except to the extent any of the following apply:

1. It is necessary to burn land clearing debris to complete the project; in which case, approval by the WVDEP Secretary or his or her authorized representative is required to conduct such burning (see 45CSR6) or;

2. The project entails the renovation, remodeling, or demolition, either partially or totally, of a structure, building, or installation, irrespective of the presence or absence of asbestos-containing materials and is subject to 45CSR34 (the asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40CFR61, Subpart M). If such is the case, a formal Notification of Abatement, Demolition, or Renovation must be completed and timely filed with the WVDEP Secretary's authorized representative and approval received before commencement of the activities addressed in the Notification.

3. Backup or emergency electrical generators may be subject to federal and state requirements and require an air permit in accordance with 45CSR13.

If the project involves demolition, and/or excavation and transportation of soil/aggregates or the handling of materials that can cause problems such as nuisance dust emissions or entrainment or creation of objectionable odors, adequate air pollution control measures must be applied to prevent statutory air pollution problems as addressed by 45CSR4 and 45CSR17. Copies of all the WVDAQ rules cited in this letter may be reviewed on the agency's website at http://www.dep.wv.gov/daq. To review the rules, click on "Summary of Rules" after accessing the website.

You may obtain the latest published air quality data summaries and statistics for the WV Division of Air Quality's ambient air monitoring sites on our website (shown above). Simply click on the image for the Air Quality Annual Report. You may also find a document summarizing, in some detail, the attainment status of the 55 counties in West Virginia relative to National Ambient Air Quality Standards (NAAQS) on our website by clicking on the link for "Publications".

As of March 1, 2019, Clay County is considered an attainment area for all criteria pollutants.

If you have any questions or need further assistance or information, please contact this office at (304) 926-0475.

Sincerely Yours,

Pam Kindrick

Pam Kindrick
Planning Section

PKK/lmc

DEP
CATEGORICAL EXCLUSION

west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0495 / Fax: (304) 926-0496

Austin Caperton, Cabinet Secretary
dep.wv.gov

August 6, 2019

The Honorable Jason Hubbard
Mayor, Town of Clay
P.O. Box 55
Clay, WV 25043

RE: Town of Clay
Wastewater Treatment Plant and Collection
System Upgrades – Phase I
SRF No. C-544614

Dear Mayor Hubbard:

Please find enclosed a copy of the Categorical Exclusion for the above referenced project. One copy should be placed in the Town's office on the bulletin board and/or placed on the Town's website. Another copy should be given to the local post office to be placed on their bulletin board.

If you have any questions, please do not hesitate to contact Jesse Rupe at (304) 926-0499, ext. 1589 or Jesse.Rupe@wv.gov or Jason Billups, P.E., at (304) 926-0499, ext. 1590 or Jason.S.Billups@wv.gov.

Sincerely,

Katheryn Emery, P.E.
Acting Director
Division of Water and Waste Management

Enclosure

cc: Fred Hypes, P.E., Dunn Engineers, Inc. (via e-mail)

west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0495 / Fax: (304) 926-0496

Austin Caperton, Cabinet Secretary
dep.wv.gov

CATEGORICAL EXCLUSION
CE-WV-

DATE: 7/31/2019

To All Interested Parties:

In accordance with the State regulations found in Title 47, Series 31, "State Water Pollution Control Revolving Fund," the West Virginia Department of Environmental Protection has performed an Environmental Review on the proposed project, as described below, and on the attached Environmental Assessment:

Town of Clay
Wastewater Treatment Plant and Collection System Upgrades – Phase I
SRF No. C-544614

(Official Project Name and Number)

Town of Clay
P.O. Box 55
Clay, WV 25043

(Project Applicant)

Town of Clay, Clay County, West Virginia

(Project Location, City, County, State)

$1,046,000

(Estimated State Revolving Fund Financial Share)

$5,746,000/$5,746,000

(Estimated Total Project Cost/Estimated Eligible Cost)

SRF No. C-544614

The review process indicated that either significant environmental impacts would not result from the proposed action or significant adverse impacts have been eliminated by making changes in the project. Consequently, a preliminary decision not to prepare an Environmental Impact Statement has been made.

This action is taken on the basis of a careful review of the Environmental Information Document, and other supporting data. These documents are on file in the West Virginia Department of Environmental Protection office and are available for public review on request. Additional copies of the Environmental Assessment will be made available, at cost, upon request.

It should be noted that this document will satisfy the NEPA requirements and Section 6 of the SRF regulations and therefore a 30 day public comment period for this document is not required. The Facility Plan shall be approved when this document is published.

Katheryn Emery, Acting Director
Division of Water and Waste Management
Department of Environmental Protection

CATEGORICAL EXCLUSION PROJECT SUMMARY FOR
TOWN OF CLAY WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM UPGRADES – PHASE I
SRF NO. C-544614

Proposed Action

The Town of Clay owns and operates a wastewater collection system and a 200,000 gallons per day (GPD) dual aeration/clarifier treatment plant in Clay County, West Virginia (Exhibits 1 and 2). The Town operates under National Pollutant Discharge Elimination System (NPDES) permit number WV0022055 and serves approximately 279 customers. The proposed project upgrades can be seen in Exhibit 3.

This project will be the first phase of a two-phase project. The first phase of the project will consist of the below wastewater treatment plant (WWTP) and pump station upgrades, as well as inspection of the collection system. Phase II of the project will address the infiltration/inflow (I/I) issues determined in the collection system and finish the necessary upgrades at the WWTP.

The upgrades to the WWTP will include a new bar screen, a new belt filter press, the conversion of one (1) of the two (2) existing aeration/clarifier basins to a Sequencing Batch Reactor (SBR), the remaining basin will be converted to an additional Aerobic Sludge Digester, the chlorine contact tank will be rehabilitated and enlarged to accommodate effluent flow from the SBR, and significant electrical upgrades within the plant. The upgrades to the pumping stations include the elimination of three (3) sanitary sewer overflows (SSO), replacement of the wet well hatches, repair of leaks in the wet wells, replacement of all components in the pump stations, installation of flow telemetry equipment, and new emergency generators. Smoke testing and manhole inspections will also be completed throughout the collection system to identify areas with I/I issues that will be addressed in Phase II of this project.

The anticipated project costs and proposed funding sources are as follows:

Total Project Cost	$ 5,746,000.00
Total Construction Cost	$ 4,576,000.00
State Revolving Fund Debt Forgiveness	$ 800,000.00
EDC Grant	$ 1,000,000.00
USEDA Grant	$ 1,500,000.00
USDA Grant	$ 750,000.00
ARC Grant	$ 1,200,000.00
State Revolving Fund Loan	$ 246,000.00
USDA Loan	$ 250,000.00
Average Monthly Rate (3,400 gallons)	$ 52.87

Environmental Benefits

The Town of Clay has received several Notices of Violation (NOV) as well as Administrative Order No. 8202 from the West Virginia Department of Environmental Protection (WV DEP) for failing to meet the requirements established in the Town's NPDES permit. The violations and Administrative Order were issued for the multiple SSO's located at pump stations with in the system, pump station failures that lead to unpermitted discharges, failure to properly operate and maintain the WWTP due to parts to repair the equipment being no longer available, failure to properly operate and maintain its sludge handling process, and failure to meet effluent limits.

It is anticipated that the upgrades proposed in this project will eliminate the overflow events and allow the Town to consistently meet effluent & permit requirements with a dependable WWTP. The elimination of overflows and the improved effluent quality is expected to improve the environmental quality of the Elk River.

Categorical Exclusion Criteria

EPA regulation 40 C.F.R. §6.204(a) permits the use of categorical exclusions from the substantive environmental review requirements of the National Environmental Policy Act (NEPA). To be excluded, the action must fit within a category of action that is eligible for exclusion and must not involve any extraordinary circumstances. For most infrastructure projects, the following actions are eligible for exclusion [40 C.F.R. § 6.204(a) (1) (ii)]:

> Actions relating to existing infrastructure systems that involve minor upgrading, or minor expansion of system capacity, or rehabilitation of the existing system and system components, or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities. This category does not include actions that:
>
> a. Involve new or relocated discharges to surface or ground water;
> b. Will likely result in the substantial increase in the volume or loading of pollutant to the receiving stream;
> c. Will provide capacity to serve a population 30% greater than the existing population;
> d. Are not supported by the state, or other regional growth plan or strategy; or
> e. Directly or indirectly involves or relates to upgrading or extending infrastructure systems primarily for the purpose of future development.

Criteria which prevent the use of a categorical exclusion are found at 40 C.F.R. §6.204(b), summarized as follows:

(1) The action may have a significant effect on the quality of the human environment or is expected to have disproportionally high and adverse human health or environmental effects on a disadvantaged community; or
(2) The action may affect cultural resource areas, endangered or threatened species, environmentally important natural resources, or other identified resource areas of concern; or

(3) The action is not cost-effective or may cause public controversy about a potential environmental impact.

Analysis

The proposed project meets the criteria for a categorical exclusion. It involves the criteria, "Actions relating to existing infrastructure systems that involve minor upgrading, or minor expansion of system capacity, or rehabilitation of the existing system and system components, or construction of new minor ancillary facilities adjacent to or on the same property as existing facilities."

The proposed system upgrades and rehabilitation will be constructed on previously disturbed property that has several other utility easements adjacent to this location.
The project does not meet any of the criteria prohibiting the issuance of a categorical exclusion.

Revocation

This conclusion can be revoked if additional and/or future information indicates any of the following:

(1) The proposed action no longer meets the defined category due to changes in the proposed action;
(2) Serious local or environmental issues now exist; and/or
(3) Federal, State, or local laws may be violated.

Documentation

1. Facilities Plan for Wastewater Treatment Plant and Collection System Upgrades for the Town of Clay prepared by Dunn Engineers, Inc., dated February 2019 with revisions in April 2019 and revisions in July 2019
2. EPA Categorical Exclusion Determination Checklist

Attachments

1. Exhibit 1 - Project Location Map (1)
2. Exhibit 2 - Project Site Map (1)
3. Exhibit 3 - Project Layout Map (1)

Exhibit 1

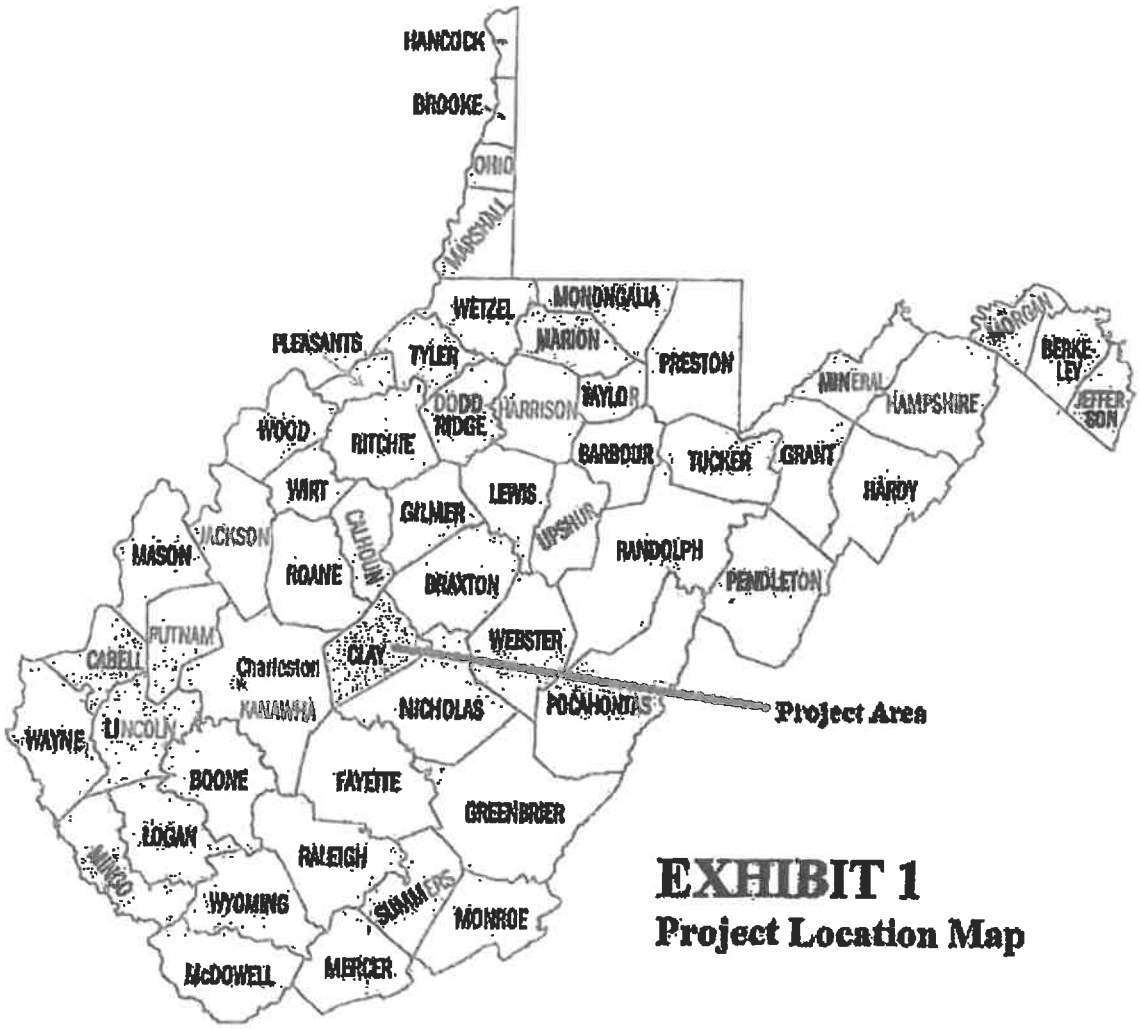


EXHIBIT 1
Project Location Map

Exhibit 2

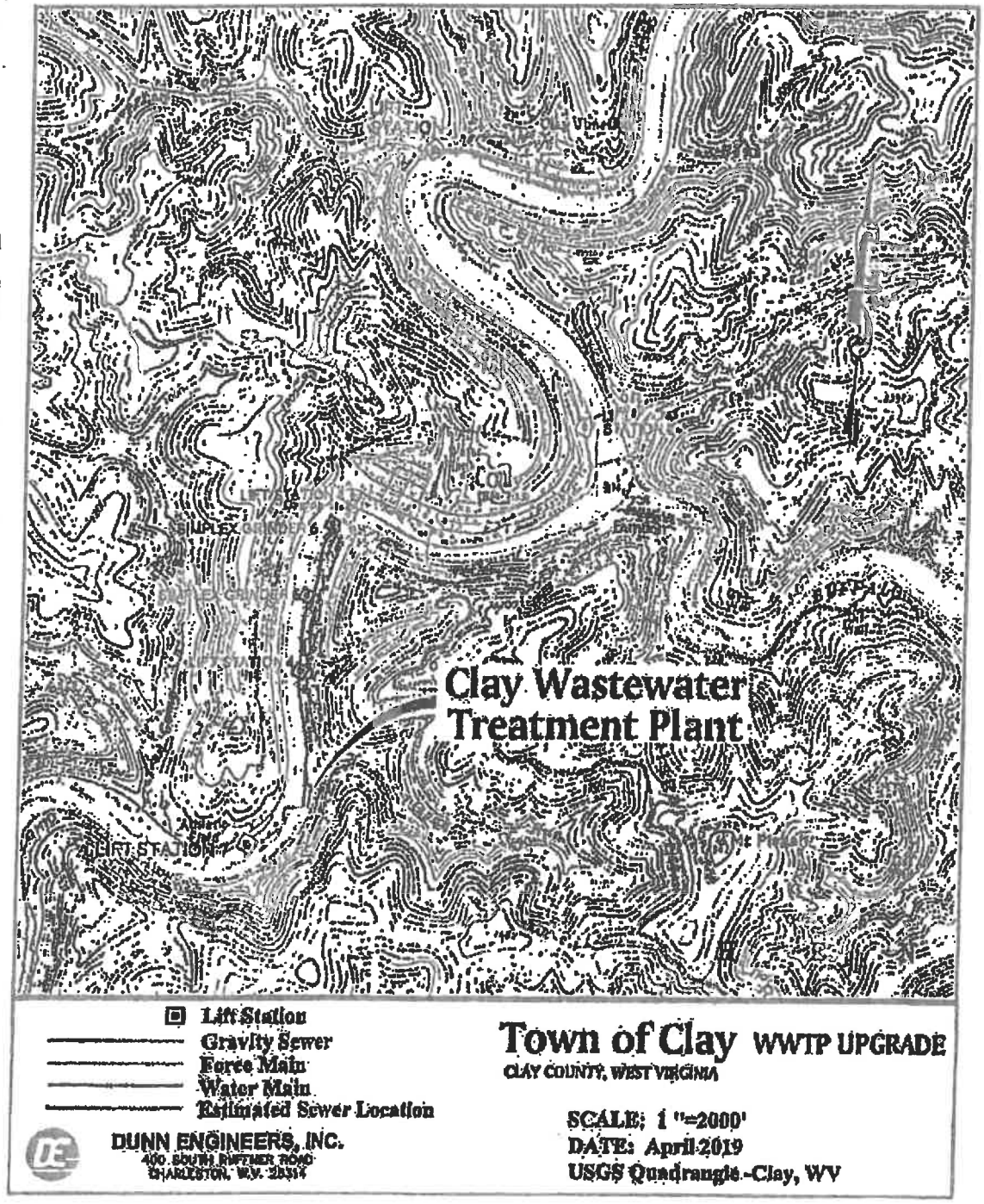
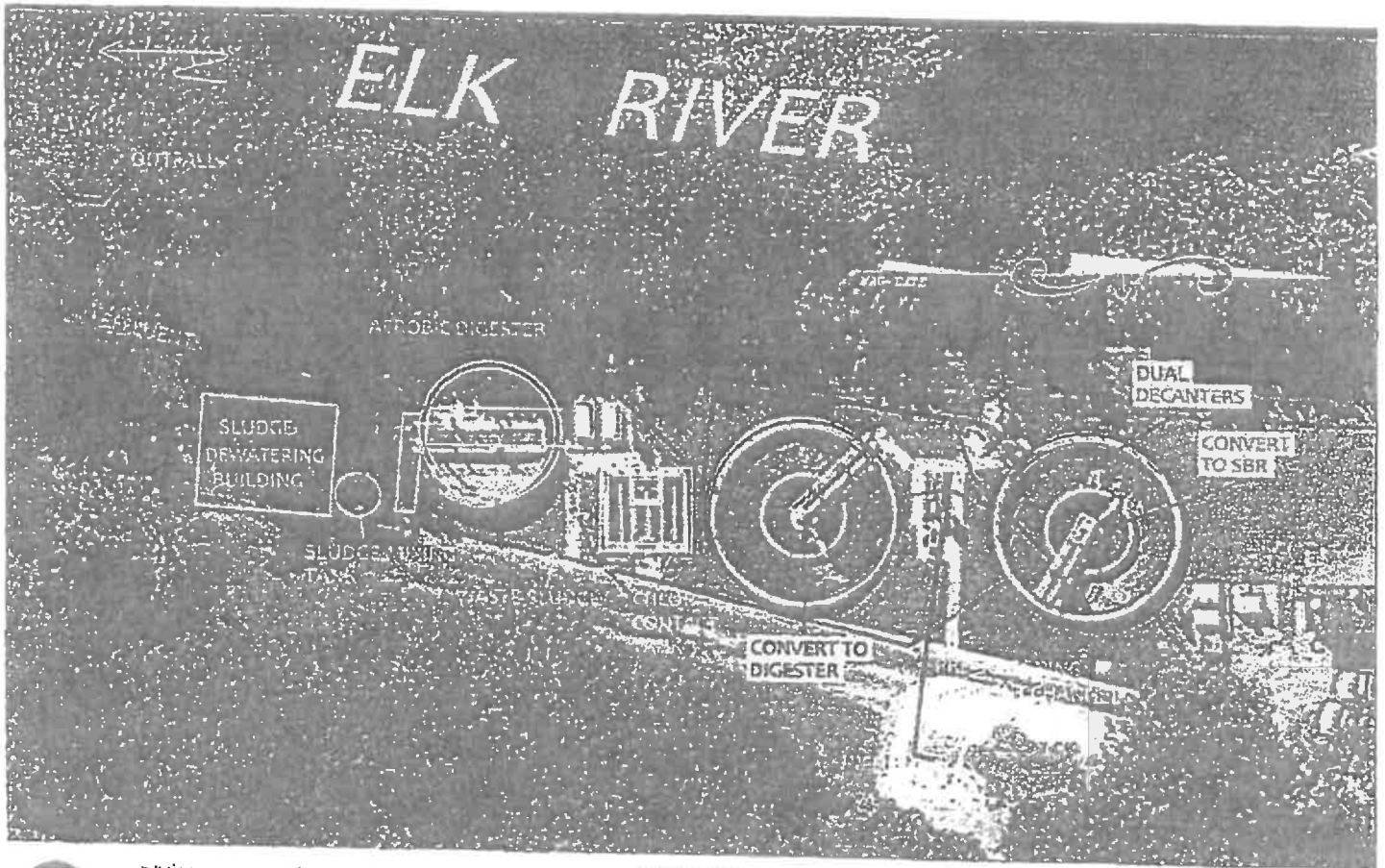

Clay Wastewater Treatment Plant
LIFT STATION
Lift Station
Gravity Sewer
Force Main
Water Main
Estimated Sewer Location
DUNN ENGINEERS, INC.
400 SOUTH RIFFTHER ROAD
CHARLESTON, W.V. 25314
Town of Clay WWTP UPGRADE
CLAY COUNTY, WEST VIRGINIA
SCALE: 1 "=2000'
DATE: April 2019
USGS Quadrangle-Clay, WV

Exhibit 3



DUNN ENGINEERS, INC.
400 SOUTH RUFFNER ROAD
CHARLESTON, W.V. 25314

TOWN OF CLAY PROPOSED WASTEWATER TREATMENT FACILITY SCHEMATIC

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

CATEGORICAL EXCLUSION DETERMINATION CHECKLIST

Project Name: Town of Clay - Wastewater Treatment Plant and Collection System Upgrades

Applicant has provided sufficient information to allow review for a Categorical Exclusion (CE). Per EPA Regulations found under Part 6.204; CE and extraordinary circumstances.

Project Type	YES	NO
x Existing Infrastructure		
a. Minor Upgrading	x	
If so, describe: Upgrade and rehabilitate the existing WWTP and existing pump station. Remove direct discharges at the pump stations		
b. Minor Expansion		x
If so, describe:		
For projects involving minor expansion, check which applies:		
____ Infill		
____ Looping		
____ Adjacent to an existing service area		
c. Rehabilitation (including functional replacement)	x	
If so, describe: Upgrade and rehabilitate the existing WWTP and existing pump stations. Remove direct discharges at the pump stations		
d. New Minor Ancillary Facilities		
If so, describe:		
____ Replacement of existing On-lot systems		
____ Projects completed prior to Appropriation		

Existing Infrastructure Projects will not qualify for a CE under the following circumstances (Check any that apply):

____ Project will involve a new or relocated discharge.
____ Project will result in a substantial increase in the volume or pollutant loading to the receiving waters.
____ Project will provide capacity to population greater than 30% of existing population.
____ Project will not be consistent with State/Local Use Plans.
____ Project is primarily intended to support new development.

Extraordinary Circumstances (Environmental Crosscutters)

A project that will cause significant environmental impacts is not eligible for a CE. .

If answer to any of the following questions is yes, please attach a detailed explanation to the checklist.

	YES	NO
1. Are there environmental justice issues?		X
2. Are there impacts to federally listed endangered/threatened species or habitats?		X
3. Are there impacts to archaeological/historic sites?		X
4. Will the project impact wetlands, floodplains, fish & wildlife resources, or groundwater resources?		X
5. Are there impacts any air quality issues?		X
6. Are there any impacts on land use?		X
7. Is there any public controversy concerning potential environmental impacts *(and has a public meeting been held?)*		X
Does project qualify for a CE?	X	

Jesse A. Rupe
Project Officer

7/26/2019
Date

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

FACILITIES PLAN CHECKLIST

Project Name: Wastewater Treatment Plant & Collection System Upgrades

Location: Clay, Clay County, WV

Consultant: Dunn Engineers

Date Submitted: 3/14/2019, revised on 4/11/2019 & 7/17/2019

General Description:

The purpose of this project is to upgrade the Town of Clay's failing wastewater treatment plant (WWTP), pump stations, and its collection system. This will be the first phase of the project. Phase I will consist of upgrading the failing treatment plant and pump stations, as well as identifying problem areas in the collection system that will be addressed in Phase II.

Note: In completing this checklist, all items should have a checkmark in the yes box except when the question is not applicable to the scope of the project. If a yes cannot be checked, then additional information is required. Comment section provided to explain N/A or any specific comments.

Section I - Introduction

	YES	N/A	PG. #
1. Description of the planning area?	X		1-2
2. The implementation of authority?	X		1
3. Detailed project history?	X		1-2
4. Signed and sealed by a WV PE?	X		Cover

Comments on Section I:

No comments.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

Section II - Current Situation

	YES	N/A	PG. #
1. All information related to current wastewater disposal practices (eg. septic tanks, direct discharges, public sewer) provided?	X		3-6
2. TMDL 303d list documentation provided?	X		2
3. The name and location of all current publicly owned, privately owned and industrial collection and treatment systems in project area?	X		I, A
4. Has an Infiltration/Inflow analysis been conducted for all existing collection systems as applicable?	X		4
Did the I/I analysis include the following as applicable?			
Physical Inspection		X	
Flow monitoring of major subsystems	X		4, J
Smoke testing		X	
TV monitoring		X	
When was the I/I analysis performed? 08/01/17			
Does the I/I analysis justify the scope of work?	X		4, 7
Do I/I findings show any of the following?			
Domestic waste production	X		4
Average and peak infiltration rates	X		4
Inflow rates	X		4
A detailed plan of operation to correct or treat the I/I problems	X		12
5. A complete sewer map of existing systems impacted by the project?	X		A
6. Information on existing CSO/SSO's and the LTCP?	X		4
7. Has each receiving stream and major river basin been identified?	X		2
8. Were existing facilities evaluated and were their maximum performance levels determined?	X		5-6, 8
9. A complete description of existing Wastewater Treatment Facilities including the following as applicable?			
Layout Maps	X		A
Schematic Diagrams	X		6, B
Physical Condition and Capacities	X		5-6, 8, C
Maintenance Data	X		6
Has effluent data for each discharge been provided?	X		J
10. Has stream designation for each receiving stream been provided?	X		2

Comments on Section II:

The I/I study that was conducted via flow monitoring between 8/2017 and 8/2018. This project includes smoke testing and manhole inspections that will assist the Town determine which areas of their collection system are more problematic and these issues will be addressed in a separate Phase II project. The Town currently has three SSO's at pump stations in the collection system. This project will rehabilitate the pump stations and eliminate these SSO's.

Section III - Future Situation

	YES	N/A	PG. #
1. Detailed population projections with historical growth rates included?	X		10
Have detailed supporting documents for those projections been provided?	X		10
2. Have non-residential flows been converted to equivalent dwelling units (EDU's and customer counts)?	X		10, 3-4
3. Have both average flow and peak daily flow been included in the projections?	X		10, 3-4

Comments on Section III:

No comments.

Section IV - Alternatives

1. Was a complete present worth analysis made of at least two alternatives that comply with the discharge limits in the waste load allocation (WLA) to establish cost-effectiveness?	X		K
2. Was the no-action alternative discussed?	X		11,12, 17
3. Was a detailed discussion of Non-Monetary Factors (eg. maintenance requirements, flexibility for each treatment and service option, public acceptance) provided?	X		18
4. Have alternative treatment plant sites been examined for each proposed treatment works with special consideration given to the aesthetics and costs associated with each alternative site?		X	
5. Will the treatment works remain accessible during the 25 year flood and be completely free from damage during a 100 year flood? (Sites not meeting this criterion shall be eliminated from consideration.)	X		21
6. Has a copy of the waste load for each evaluated discharge location and any NPDES permit requirements been addressed in this section?	X		9, 15, D

	YES	N/A	PG. #
7. Was a complete list of Centralized versus Decentralized service areas provided?		X	
8. Was sludge processing and its final disposal evaluated?	X		14
9. Has a schematic diagram of the proposed STP(s) been included?	X		B
10. Has sufficient design data been provided to make a decision on the feasibility and reliability of treatment works?	X		14-15, J
11. Does the STP(s) design appear reasonable in light of discharge requirements?	X		14-15, J
12. Has a 1"=100' scale map for each site been provided?		X	
13. Does proposed treatment plant site conform to Buffer Zone Requirements in 47CSR31, App. B, Table E?		X	
14. To the extent necessary, were the following collection system alternatives evaluated?		X	10-12, J
Gravity		X	
Grinder pump/pressure		X	
Utilization of existing collection system	X		11-13
Note: More than one collection system technology may be utilized in the recommended system.			
15. Has 1"=500' scale mapping of selected alternative been provided? (These maps shall also identify existing and projected customers.)	X		3, A-B

Comments on Section IV:

This project will involve upgrading and rehabilitating existing facilities on the previous WWTP site. This project will also rehabilitate the existing pump stations at their current location and will not relocate any pump stations.

Section V - Plan Selection and Public Participation

1. Includes a brief selection of factors influencing the choice of the selected plan?	X		18-19
2. At least one public meeting was held to discuss the chosen alternative as well as the reasons for rejecting other alternatives and to allow for comments. (with meeting minutes included)	X		19, M
3. Does the project scope match the scope of work in the IJDC approved PER?	X		RK

Comments on Section V:

The public meeting that was held for the project did not receive any negative comments.

Section VI - Environmental Information

	YES	N/A	PG.#
1. Have environmental information documents been incorporated in the plan which evaluated the chosen alternative?	X		19-24, G
2. Will the entity implement all measures necessary to prevent adverse impact to the public health, safety, or welfare or to the environment?	X		19-24

Comments on Section VI:

No comments.

Section VII - Project Summary

	YES	N/A	PG.#
1. A summary of the proposed project, including detailed descriptions of all project facilities, systems, and appurtenances (e.g., the length and size of pipes, pumping station capacities as applicable) have been provided in this section of the plan.	X		25-27

Comments on Section VII:

No comments.

Section VIII - Appendices

1. Project Cost Estimate	X		26-27
2. O&M Summary	X		6, 28
3. Debt Information	X		28
4. User Charge Information	X		29

5. Detailed Project Schedule	X		30
6. Resolution of acceptance if needed from the implementing agency		X	
7. All governmental agreements		X	
8. A copy of the current NPDES permit or waste load allocation	X		D
9. A statement of availability of proposed wastewater treatment works site		X	
10. All other pertinent correspondence and documents		X	

Comments on Section VIII:

No comments.

Section IX - Environmental Screening Checklist

The following questions are each followed by a series of three (3) boxes in which to respond. A negative response to each question in a category will justify the decision of "no significant impact". The statements are phrased to include both primary and secondary impacts and were based upon criteria for an impact statement (40 CFR Part 6). The Section on "Land Use Planning and Management" should determine secondary impacts due to development.

If a definite negative response cannot be made then the "possible adverse" block should be checked and that particular category discussed in the Environment Assessment (FONSI). The Environmental Assessment, when written, should summarize beneficial impacts and discuss possible adverse impacts and mitigating measures.

The phrasing "Does documentation exist. . ." was used for several questions due to the difficulty in being specific and thus possibly not relating to all situations. The Environmental Screening Checklist is worded generally to invoke in the reviewer the responsibility to deeply consider each item rather than routinely check blocks.

The items which require correspondence from environmental agencies are indicated with an asterisk(*). Other items may be answered based upon the reviewer's knowledge (RK) of the project.

Natural Environment

Air Quality	YES	NO	POSSIBLE ADVERSE
1. Does documentation exist to indicate a possible violation of ambient air quality standards as a primary impact of the project?		X	
2. Is incineration proposed?		X	
3. Is significant or excessive development planned or expected, which could yield a possible violation of ambient air quality standards as a secondary impact of the project?		X	
4. Does documentation exist to indicated a possible violation of noise standards as primary or secondary impact of the project?		X	

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

	YES	NO	POSSIBLE ADVERSE
Water Quality			
1. Will the proposed discharge cause a violation of existing stream standards?		X	
2. Are present stream standards being legally challenged?		X	
3. A sediment and erosion control plan will not be submitted.		X	
4. Does documentation exist to indicate if existing or future development could affect the quality or quantity of groundwater (e.g. groundwater recharge area)?		X	
Water Supply			
1. There is an existing or possible future public water supply downstream of the proposed discharge.		X	
2. The project will cause a significant amount of water to be transferred from one sub-basin to another (relative to the 7-day, 10-year low flow of the diverted basin?		X	
3. There is an existing or proposed groundwater supply source (aquifer) to which the project is discharging.		X	
Biology (*)			
1. Endangered or threatened species are not included in the initial or future service areas.		X	
2. Documentation exists to indicate wildlife and/or their habitat will be affected by treatment works location or future development.		X	
3. Documentation exists to indicate aquatic life will be affected by the proposed treatment works (i.e. discharge is located near or adjacent to a shellfish harvesting area).		X	
Sensitive Areas			
1. The service area includes or is part of an area designated or considered sensitive by a local, state or federal agency(ies).		X	
2. The service area includes streams which have or are being considered for designation as a Wild and Scenic River.		X	
Wetlands (*)			
1. Wetlands, either fresh or salt water, are included in the service area.		X	
2. Those wetlands in the service area will be affected directly or indirectly (related to land use) by either STP location or interceptor routing.		X	

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

Land Use Planning and Management	YES	NO	POSSIBLE ADVERSE

A negative response to all questions will indicate minimal secondary impacts due to development.

Existing Land Use

1. The project does not conform to existing land use plans or could cause significant changes to existing land use patterns.		X	

Reserve Capacity

1. The STP or pump station will have an initial reserve capacity greater than 50% of its design average capacity.		X	

Vacant Land

1. Large areas of existing vacant land will be subject to increased development pressure.		X	

Population Changes

Documentation exists which indicates that the proposed project will induce population changes or migration which could cause:

1. Overload sewerage facilities.		X	
2. Affect demand or availability of energy sources.		X	
(*) 3. Prime agricultural land will be lost for its natural uses due to interceptor routing or subsequent development.		X	
4. Flood plains will be open to interceptor routing		X	
5. Sludge disposal will occur in an area with inadequate sanitary landfill(s) or on land unsuitable for land application		X	
6. The recommended project is documented as using more energy than other feasible alternatives considered.		X	

Socio-Economic Environment

1. The project will require the acquisition of residential properties		X	
2. Parks or recreational areas will be acquired for or affected through development by STP construction or interceptor routing.		X	
3. A buffer zone does not exist between a plant or pump station and an existing or proposed park.		X	
4. Documentation exists which suggests the local populace cannot afford their local share of the proposed project.		X	
5. No buffer zone or effective barrier exists between the proposed project and existing residential areas.		X	
6. Interceptor routings do not provide for the use of existing roads or right-of-ways where feasible.		X	
(*) 7. The project will affect known or potential archaeological sites as identified by the Federal Register, state preservation officer or other interested parties.		X	

(*) 8. A registered historic site(s) exists in the service area.		X	
9. A local historic site(s) eligible for federal registration exists in the service area as defined by the state historic preservation officer or other interested parties.		X	
10. The project threatens to violate a Federal, State or local law or requirement, which was originally imposed to protect the environment.		X	
11. The project as proposed has developed a significant level of public controversy.		X	
12. Inadequate evidence of public participation in the project exists.		X	
13. Has a statement been received on the availability and estimated cost of proposed sites?		X	

Comments on Section IX:

No comments.

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

Section X - Review Summary and Recommendations

What portions of the project have already proceeded or could proceed to design or building while deficiencies are corrected?

Design for the project could start at anytime. No deficiencies are noted.

Recommendations (specify conditions, if any, on approval):

This Facilities Plan is recommended for approval.

Jesse A. Rupe
Engineer

7/26/2019
Date

Engineering Section Manager

7/26/19
Date

CRITICAL NEEDS FOR PROJECT LETTER

DUNN ENGINEERS, INC.

June 15, 2021

E-MAIL ONLY

Mr. Terry Martin, Project Coordinator
Region 3 Planning & Development Council
Regional Intergovernmental Council
315 D Street
South Charleston, WV 25303

RE: Town of Clay
Sewer System Improvements
Critical Needs for Project

Dear Mr. Martin:

The Town of Clay continues to struggle with maintaining its wastewater treatment plant and collection system in even a minimal operating condition. The WV Department of Environmental Protection has issued Orders 8202 and 9084 to the Town, along with a number of Notices of Violations (and are still issuing them) because of continuing equipment failures and the lack of available replacement parts. Emergency repairs funded by deferred loans and grants from the WV Water Development Authority and the Infrastructure and Jobs Development Council have been completed over the past year to return the sewage pumping stations to an operable (but by no means fully upgraded and flood resistant) condition; the wastewater treatment plant, however, continues to be plagued with mechanical and electrical failures. Within the past five weeks, the one "operational" treatment unit has experienced two electrical failures and a piping blockage that have rendered the facility little more than an open-topped septic tank. Parts for making temporary repairs won't be delivered for installation for at least a week, and possibly much longer. Because of the construction of the treatment basins, and because parts for its proprietary treatment equipment are no longer available, making permanent repairs is impossible until the facility is upgraded. Please note also that all of the pumping stations, as well as the wastewater treatment plant, were inundated by the flood of June 2016, resulting in damage to electrical and mechanical equipment and access roads, as well as filling sewer mains and pumping stations with silt, sand and debris.

Without the construction of the wastewater treatment plant and pumping station upgrade project, continued failures are guaranteed because of the condition of the mechanical and electrical equipment, and because of piping failures underneath the buried concrete treatment basins. The recent conversion of the Elk River Railroad to a heavily used "Rails to Trails" facility (which runs right beside the treatment plant) and the increasing number of kayaks and canoes on the Elk River (which also borders the plant) significantly exacerbates any failures that occur at the facility; those failures would also impact the Clay-Roane Public Service District's water treatment plant that is located just downstream of Clay's wastewater treatment facility. The necessity to move forward in

400 SOUTH RUFFNER ROAD • CHARLESTON, WEST VIRGINIA 25314 • TEL (304) 342-3436 • FAX (304) 342-7823
•EMAIL: dunneng@aol.com•

an expeditious manner cannot be overstated from public health, environmental, environmental enforcement perspectives, or from resiliency and flood protection perspectives. Design of the improvements is proceeding well, and will be completed later this fall, and the project should be able to proceed to bid next year.

Please advise if we can provide any additional information for this project.

Sincerely,

DUNN ENGINEERS, INC.

Frederick L. Hypes, P.E., P.S.
Vice President of Engineering

FLH:sz

DUNN PRELIMINARY ENGINEERING REPORT

TOWN OF CLAY

CLAY COUNTY, WEST VIRGINIA

WASTEWATER TREATMENT PLANT AND

COLLECTION SYSTEM UPGRADES PHASE I

PRELIMINARY ENGINEERING REPORT

FEBRUARY 2019

DUNN ENGINEERS, INC.
CHARLESTON, WEST VIRGINIA

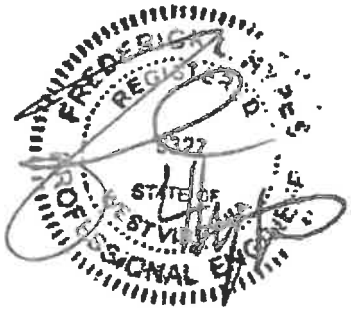
TOWN OF CLAY

CLAY COUNTY, WEST VIRGINIA

WASTEWATER TREATMENT PLANT AND COLLECTION SYSTEM UPGRADES PHASE I

PRELIMINARY ENGINEERING REPORT

FEBRUARY 2019



DUNN ENGINEERS, INC.
400 SOUTH RUFFNER ROAD
CHARLESTON, WV 25314

TOWN OF CLAY
CLAY COUNTY, WEST VIRGINIA
WASTEWATER TREATMENT PLANT AND
COLLECTION SYSTEM UPGRADES PHASE I

PRELIMINARY ENGINEERING REPORT

TABLES

APPENDICES

TOWN OF CLAY
CLAY COUNTY, WEST VIRGINIA
WASTEWATER TREATMENT PLANT AND
COLLECTION SYSTEM UPGRADES PHASE I

PRELIMINARY ENGINEERING REPORT

PART I - INTRODUCTION

The Town of Clay is the only incorporated town in Clay County, West Virginia. It was incorporated in 1895. It is located about 40 miles Northeast of Charleston next to the Elk River. The area of the Town is 0.62 square miles. Clay currently serves 285 sewer customers. The collection system likely dates back to the 1930's or 1940's, and the initial package plants were installed in the late 1950's to early 1960's. The Town's current wastewater treatment plant (WWTP) was installed in the late 1990's. See Appendix A for a map of the existing sewer system.

PART II - CURRENT SITUATION

A. DISCHARGE

Following treatment, Clay's wastewater is discharged into the Elk River. The Town has a WV NPDES Permit No. WV0022055 (see Appendix D). The Elk River is on the 303d list for CNA-biological and has TMDLs developed for fecal coliform and iron, and the WV Department of Environmental Protection designates it as Group B for warm water fishery and trout water. The Clay treatment plant is also upstream of the Clay-Roane PSD's water treatment plant at Procious, Clay County.

B. CUSTOMERS

The customers of the Town of Clay sewer system can be broken down as follows: 186 residential. 51 commercial, 19 public authorities (including Clay County High School), and 29 multiple family dwelling customers (285 total customers). When compared using the amount of flows from each, it can be determined that there is an equivalent of 320 residential customers.

C. COLLECTION

The collection system is subject to rates of high infiltration/inflow. It consists of 6 to 10 inch gravity sewers, 5 pumping stations, and 1-1/2 to 8 inch force mains, as can be found in Table 1.

TABLE 1
COLLECTION SYSTEM

ITEM DESCRIPTION	QUANTITY	UNIT
10" PVC Gravity Sewer Pipe	1500	LF
8" PVC Gravity Sewer Pipe	+/- 4,000	LF
6" PVC Gravity Sewer Pipe	4300	LF
8" PVC Force Main	900	LF
6" PVC Force Main	1600	LF
3" PVC Force Main	7000	LF
1-1/2" PVC Force Main	180	LF
6" PVC Lateral Pipe	1025	LF
Manhole	+/- 40	EA
Cleanout	5	EA
Force Main Cleanout	4	EA
Lift Station	5	EA
Simplex Grinder Pump Station	2	EA

D. TREATMENT

The WWTP in Clay was constructed in 1998. It has a permitted average flow rate of 0.2 MGD (million gallons per day) and consists of the following: 2 bar screens, a grit chamber, 2 aeration chambers with a volume of 112,300 gallons each, 2 clarifiers with a volume of 30,500 gallons each, a dual chlorine contact chamber with a total volume of 5,700 gallons, dechlorination facilities. a 51,800 gallon aerobic digester, a 4,000 gallon sludge mixing tank, and a 12 bag sludge dewatering unit.

The treatment plant is in poor condition overall. Only one of the aeration/clarifier basins is operation, with the other having been scavenged for parts. The operational basin has its own issues, particularly an air line leak. The Zimpro treatment units in these basins are no longer available so replacing the equipment is not a viable option. The plant has also experienced issues with its blowers, RAS pump station, sludge thickener, chlorine system, and electrical system. The chlorination system has already caused one of the operators to be exposed to the gas, and the electrical system is particularly dangerous due to an 85 volt electrical current which has energized all of the metal components in the sludge bagger building, leaving a potentially fatal shock hazard present.

See Appendix B for a schematic of the existing WWTP, Appendix C for photographs, and Appendix L for information on the existing Zimpro treatment unit. Maintenance costs for the existing wastewater treatment and collection system can be found in Table 2.

TABLE 2
CURRENT OPERATION AND MAINTENANCE COSTS

ITEM DESCRIPTION	ANNUAL COSTS
Salaries and Wages - Employees	$29,416
Employee Pensions and Benefits	$7,409
Sludge Removal Expenses	$2,788
Purchased Power	$22,665
Chemicals	$6,901
Materials and Supplies	$23,501
Contractual Services - Professional	$6,350
Contractual Services - Testing	$2,803
Transportation Expenses	$3,339
Insurance Expenses	$10,891
Miscellaneous Expenses	$515
TOTAL	**$116,578**

E. NEED FOR THE PROJECT

1. Infiltration/Inflow

In terms of infiltration and inflow (I/I), it is apparent that the Town's collection system is in dire need of repairs. As much as 75% of the current influent comes from I/I. This excessive I/I has directly caused violations with the West Virginia Department of Environmental Protection (WV DEP) regarding limits on total flow at the plant and with the requirement that 85% reduction of influent BOD_5 and SS. If the collection system can receive necessary repairs, it will greatly increase the overall efficiency of treatment and prevent the treatment plant from exceeding its design

capacity. which would avoid further violations of the WV NPDES permit. Also, it is currently unknown which parts of the system are failing, so smoke testing will need to occur in order to properly assess the system condition. Based on current flows being received at the treatment plant, it is likely that a pipe near a creek or river is broken and letting in large volumes of extraneous water. There are also 3 pipes (SSO's) that discharge untreated sewage into the Elk River, located at Station 2 (near the water plant), Station 3, and Station 7 (near the high school); these are not permitted. See Appendix J for flow data which demonstrates the significant I/I issues.

2. Pumping Stations

Several of the pumping stations have failed on multiple occasions and have caused discharges of raw sewage directly into the Elk River, leading to Notices of Violation from the WV DEP (see Appendix E) as well as Order 8202 (see Appendix F). Several stations are flooded entirely multiple times during the year due to their proximity to the Elk River and their relatively low elevations. There are also serious electrical issues with the electrical service provider (Black Diamond Electric Co-Op) that are damaging the pump controls and are creating shock hazards for the operators.

3. Wastewater Treatment Plant

The wastewater treatment plant has experienced a number of mechanical and electrical failures that have left one of the two treatment units inoperable and the other partially operable (the inoperable unit has had its mechanical components scavenged to allow the other unit to be repaired). This has reduced the capacity of the plant to less than 0.1 MGD. The clarifier rake on the "operable"

unit has failed recently, making sludge removal all but impossible, and a severe air line leak in that same unit requires both operable blowers to run continuously. The third blower has failed and is inoperable, and continuous use of these blowers, which are 20 years old, is likely to lead to failures in the near future. The Return Activated Sludge (RAS) pump station controls are damaged, and the pumps can only operate on an intermittent basis. Parts for the Zimpro treatment units are not available and should any more equipment fail, it will be able to provide no more than primary treatment, and the discharge is upstream of the Clay-Roane PSD's potable water intake at Procious. The electrical components for the polymer feed unit for the sludge bagger has failed, as has the mechanical equipment in the sludge thickener. To handle sludge, a belt filter press and accompanying building upgrade is required at the treatment plant. A new dump truck would also be beneficial for hauling sludge from the treatment plant.

In addition to the equipment failures outlined above, the gas chlorination equipment has failed, resulting in one of the operators being exposed to the gas; there is no operable chlorine alarm system or exhaust fan, nor is there an emergency breathing apparatus. It would be beneficial to switch to liquid chlorine and upgrade the existing chlorine contact tank to meet the needs of the plant upgrade. Also, an 85 volt "stray" electrical current has energized all of the metal components in the sludge bagger building, creating a potentially fatal electrical shock hazard for the operators in this building.

F. EXISTING PERMITS/CERTIFICATES

The Town of Clay currently has a WV NPDES Permit No. WV0022055. Table 3 shows the effluent limits for Clay under the permit.

TABLE 3
EFFLUENT LIMITS

Effluent Characteristics	Limitations	
	Average Monthly	Maximum Daily
BOD_5	30 mg/l	60 mg/l
TSS	30 mg/l	60 mg/l
Ammonia Nitrogen	12.4 mg/l	25 mg/l
Fecal Coliform	200 Cnts / 100 m	400 Cnts / 100
pH	Minimum 6, Maximum 9	

PART III - FUTURE SITUATION

A. POPULATION PROJECTIONS

The population of Clay has been decreasing at a steady rate or at best stagnant since the 1980's. The population was constant preceding a boom of 96% increase which was followed by decline in citizens. It is unexpected for population to increase dramatically over the next several years; it may, in fact, decrease. Population data from U.S. Census records for the Town can be found in Table 4.

TABLE 4
CLAY POPULATION PROJECTIONS

Year	Population	% Change
1900	339	—
1910	392	15.60%
1920	342	-12.80%
1930	444	29.80%
1940	511	15.10%
1950	500	-2.20%
1960	486	-2.80%
1970	479	-1.40%
1980	940	96.20%
1990	592	-37.00%
2000	593	0.20%
2010	491	-17.20%
Est. 2016	464	-5.50%

B. FLOW PROJECTIONS

Because there will be no additions and no population increases are expected, there should be no increased flows from this project.

C. WASTELOAD ALLOCATION

A wasteload allocation application is unnecessary because there will be no significant alterations to the existing permitted capacity or to the expected organic or hydraulic plant loadings.

D. PERMITS/CERTIFICATES REQUIRED

The required permits/certificates for the proposed project are listed below:

- West Virginia Division of Highways
- West Virginia Department of Environmental Protection NPDES Construction Permit
- Public Service Commission of West Virginia

PART IV - ALTERNATIVES

A. COLLECTION SYSTEM

1. Do Nothing

One option for Clay is to do nothing regarding the existing collection system. Significant amounts of infiltration and inflows would continue to occur. The wastewater treatment plant would likely exceed design capacity, especially during precipitation events. Overall, this alternative is not feasible if the Town wishes to improve its treatment efficiency.

2. Smoke Test and Inspect Collection System

Another option for Clay is to evaluate what improvements can be made to its existing collection system. This would be done by smoke testing the system to learn which parts of it are most

failing. There would also be manhole inspections done to assess if any manhole replacements need to be made. Once that information is known, repairs and replacements could be made to the most troublesome areas in a separate Phase II, where it is likely that several manholes and a large portion of pipeline would need replaced or lined. The efficiency of treatment would increase due to less dilution in the influent. The proposed cost for smoke testing and inspection is $65,000. Once the smoke testing and manhole inspections are completed, an upgrade project will be developed to reduce the amount of infiltration and inflow entering the system.

B. PUMPING STATIONS

1. Do Nothing

One option for Clay is to do nothing regarding the existing pumping stations. The pumping stations would continue to let in excessive amounts of water into the system. They would also continue to cause discharges of raw sewage directly into the Elk River during wet weather and when equipment failures occur. Because of this, this alternative is not considered implementable for this project.

2. Upgrade Existing Pumping Stations

The other alternative for Clay is to significantly upgrade all five of the failing pumping stations. This resolve the recurring mechanical failures and electrical failures, and the station

overflows. Discharges would no longer occur, and I/I would decrease with the replacementofleaking hatches and the repair of leaks in the wet wells. Additionally. the pumping stations which need them would receive emergency generators. All of the pumps, valves, pipping, and controls at the stations would be replaced, as would the wet well access hatches: wet well leaks would also be repaired. Telemetry equipment would allow more reliable information and maintenance options to be available and allow the operators to respond to problems before raw sewage discharges would occur. The estimated construction cost for this alternative can be found in Table 5.

TABLE 5
PUMPING STATION CONSTRUCTION COST ESTIMATE

DESCRIPTION	QTY	UNIT	PRICE	TOTAL COST
Pumping Station Upgrade	5	EA	$175,000	$875,000
Emergency Generator for Pump Station	5	EA	$80,000	$400,000
Simplex Grinder Pump Station Upgrade	2	EA	$50,000	$100,000
Emergency Generator for Grinder Station	2	EA	$20,000	$40,000
Telemetry for Pumping Stations	1	LS	$200,000	$200,000
Job Trailer	2	EA	$10,000	$20,000
Erosion Control	1	LS	$10,000	$10,000
Pre-Construction Video	1	LS	$10,000	$10,000
Mobilization / Demobilization	1	LS	$25,000	$25,000
SUBTOTAL CONSTRUCTION				$1,680,000
Contingencies @10%				$168,000
TOTAL CONSTRUCTION				$1,848,000
			Say	$1,850,000

C. WASTEWATER TREATMENT PLANT UPGRADES

1 Make WWTP Upgrades and Modifications

Several upgrades would be made regarding the wastewater treatment plant. Firstly, both a new screen and a belt filter press would be installed, resolving the sludge disposal issues. One of the two existing aeration/clarifier basins would be converted to a sequencing batch reactor (SBR) with dual decanters and aeration equipment. and the second basin would be converted to an additional aerobic sludge digester. The volume of one of the aeration/clarifier basins is approximately 110,000 gallons which is adequate to treat an ADF of 200,000 gpd and a PDF of 1,000,000 gpd. By converting the basin that is currently out of operation to the SBR process, the upgrade and conversion could be done without interfering with the operation of the one operational basin. The SBR system will eliminate the mechanical issues in the existing treatment equipment and require far less maintenance; reliability would also increase significantly. It is vital that the treatment plant undertake significant electrical modifications to eliminate the severe safety hazards that currently exist. The chlorine contact tank will also need to be rehabilitated and enlarged to accomodate the effluent flow rates from the SBR decanters. The preliminary construction costs for this alternative are included in Table 6.

TABLE 6
WWTP UPGRADES CONSTRUCTION COST ESTIMATE

DESCRIPTION	QTY	UNIT	PRICE	TOTAL COST
New Screen Installation	1	LS	$250,000	$250,000
Treatment Basin SBR Conversion	1	LS	$1,000,000	$1,000,000
Digester Rehabilitation	1	LS	$325,000	$325,000
Electrical Modifications	1	LS	$225,000	$225,000
Belt Filter Press	1	LS	$250,000	$250,000
Building Upgrade	1	LS	$250,000	$250,000
Chlorine Contact Tank Rehabilitation	1	LS	$75,000	$75,000
Purchase Dump Truck	1	EA	$100,000	$100,000
Job Trailer	2	EA	$12,500	$25,000
Erosion Control	1	LS	$10,000	$10,000
Pre-Construction Video	1	LS	$10,000	$10,000
Mobilization / Demobilization	1	LS	$25,000	$25,000
SUBTOTAL CONSTRUCTION				**$2,545,000**
Contingencies @10%				$254,500
TOTAL CONSTRUCTION				$2,799,500

2. Consolidate with Another Existing Wastewater System

The closest sewage systems that are available to Clay are in Clendenin (Elk Valley PSD) and Gauley Bridge (Kanawha Falls PSD). Both of these locations would be incredibly far to pump wastewater, with the distances being approximately 20 to 30 miles. With these distances, detention times in the pumping stations and force mains would be between 32 and 48 hours, both of which would create septicity and odors, and would seriously complicate the operation and maintenance of the connecting force main. Also, the price would be highest with these pumping to either of these locations. For these reasons, this alternative is not being considered. The construction costs for pumping to Clendenin or Gauley Bridge are found in Tables 7 and 8 respectively.

TABLE 7
CONNECT TO CLENDENIN CONSTRUCTION COST

DESCRIPTION	QTY	UNIT	PRICE	TOTAL COST
8" PVC Force Main Installation	100,000	LF	$45	$4,500,000
Pumping Station	11	EA	$300,000	$3,300,000
Gate Valve	50	EA	$1,000	$50,000
Cleanout	50	EA	$2,500	$125,000
Air Release Valve	5	EA	$4,000	$20,000
Bioxide Station	4	EA	$50,000	$200,000
Aeration Station	3	EA	$40,000	$120,000
Job Trailer	2	EA	$10,000	$20,000
Telemetry	1	LS	$30,000	$30,000
Erosion Control	1	LS	$15,000	$15,000
Pre-Construction Video	1	LS	$10,000	$10,000
Mobilization / Demobilization	1	LS	$30,000	$30,000
SUBTOTAL CONSTRUCTION				$8,420,000
Contingencies @10%				$842,000
TOTAL CONSTRUCTION				$9,262,000
			Say	**$9,300,000**

TABLE 8
CONNECT TO GAULEY BRIDGE CONSTRUCTION COST

DESCRIPTION	QTY	UNIT	PRICE	TOTAL COST
8" PVC Force Main Installation	145,000	LF	$45	$6,525,000
Pumping Station	17	EA	$300,000	$5,100,000
Gate Valve	73	EA	$1,000	$73,000
Cleanout	73	EA	$2,500	$182,500
Air Release Valve	10	EA	$4,000	$40,000
Bioxide Station	5	EA	$50,000	$250,000
Aeration Station	4	EA	$40,000	$160,000
Job Trailer	2	EA	$10,000	$20,000
Telemetry	1	LS	$30,000	$30,000
Erosion Control	1	LS	$15,000	$15,000
Pre-Construction Video	1	LS	$10,000	$10,000
Mobilization / Demobilization	1	LS	$30,000	$30,000
SUBTOTAL CONSTRUCTION				$12,435,500
Contingencies @10%				$1,243,550
TOTAL CONSTRUCTION				$13,679,050
			Say	**$13,700,000**

3. Do Nothing

The final option for Clay is to do nothing regarding the existing wastewater treatment plant's existing issues. One of the two existing treatment basins would remain out of service (reducing the capacity by half) and the other unit would likely fail in the very near future because spare parts are no longer available, and because of broken air lines and failing blowers. This would also leave the extremely dangerous electrical issues going unaddressed, as would it leave the dangerous conditions that existing within the chlorination system. The current sludge disposal methods would continue to be inadequate. The RAS pump station would continue operating on only an intermittent basis, and the plant would continue to have a capacity which cannot accommodate existing flows or provide treatment sufficient to meet current WV NPDES effluent discharge limitations. This alternative is not considered implementable for this project.

PART V - PLAN SELECTION AND PUBLIC PARTICIPATION

A. PLAN SELECTION

The Town of Clay has chosen to upgrade its existing pumping stations, undergo smoke testing to study the collection system's I/I problems, and perform significant upgrades to the wastewater treatment plant. Discharges of raw sewage to the river will be addressed with the pumping station upgrades, and the deficiencies and dangerous conditions at the wastewater treatment plant will be addressed with the plant upgrades. This Phase I project will allow more information to be gained regarding I/I sources and will correct the most pressing issues within the wastewater

collection and treatment system. The Phase II project will include significant upgrades to the collection system once I/I sources have been identified. See Appendix K for the present worth analysis of alternatives.

B. PUBLIC PARTICIPATION

A formal public meeting on the project has not yet been held; however, the project has been discussed multiple times by the Town Council. A formal meeting will be held in the near future at the Town Hall to discuss the project and solicit public input. Minutes of that meeting will be added to this report at a later date.

PART VI - ENVIRONMENTAL INFORMATION

A. GENERAL

The following is a summary of the environmental considerations that must be addressed prior to construction starting. The overall environmental impact of the proposed project is minimal. Improvement to the overall public health by providing better quality wastewater treatment will far outweigh any temporary environmental impact. All environmental correspondence can be found in Appendix G.

B. ARCHAEOLOGICAL AND HISTORICAL

The West Virginia Division of Culture and History was contacted for a file review of archaeological and historical sites in the planning area. The evaluation of the proposed project site will determine if a Phase I archaeological study may have to be performed to examine any historical significance.

C. ENDANGERED SPECIES

The Natural Heritage Program in the Wildlife Section of the West Virginia Department of Natural Resources and the United States Fish and Wildlife Service were contacted regarding rare, threatened, and endangered (RTE) species in the project area. It is unlikely that this will have any effect on this project area.

D. WETLANDS

The Wildlife Resources Division of the West Virginia Department of Natural Resources was contacted regarding the potential for the project to impact wetlands. It is expected that no new materials will be discovered during construction since the work is to be performed in previously disturbed areas.

E. UNAVOIDABLE ADVERSE IMPACTS OF THE PROJECT

Several short term impacts would result from this project. These impacts relate to construction activities and include land erosion and damage, noise, odor, dust, and air pollution. These effects would be temporary in nature with no long term adverse effects. Erosion control measures, which are designed to minimize the impact of construction activities to rivers and streams, would be included in the specifications of the project.

F. FLOOD ELEVATIONS AND FLOOD PLAINS

The proposed project is to be constructed in areas which have been previously disturbed or will consist of modifications to equipment which have been previously installed. The modifications to the existing components of the system will have no effect on the elevations of the existing components, and new components will be installed above the 100-year flood elevation.

G. POTENTIAL REACTIONS TO OPEN SPACE OPPORTUNITIES

The project would not adversely affect nor limit the establishment of, nor cause the creation of, any other public open space, parks, or recreational areas.

H. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The proposed project would not damage the environment and would have no long-term detrimental effect on the area. There would be no damage to wildlife or historic areas. The short-term adverse impacts of construction would last only during the construction period and would have no adverse impacts on the long-term productivity of the area. The net result of this project would be an increase in the long-term productivity of the area.

I. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The primary irretrievable resources which must be committed during the construction of the proposed project include the piping materials, concrete, steel, fuels, and machinery used during the construction period. The irreversible and irretrievable commitment of resources for the proposed project would not have any major detrimental effect on the nation's vital resources.

J. NOISE, ODOR, DUST, AND AIR POLLUTION

The noise of construction, mud during wet periods, dust during dry periods, and the air pollution from construction equipment would create an adverse effect on the environment. The impact would be localized at the point of construction and would be temporary in nature.

K. GROUNDWATER AND PUBLIC WATER SUPPLY

The nature and quality of the groundwater in the project area is not known. The proposed project should have no adverse effect on the groundwater in the project area, and there are no municipal water supply wells are in the project area. The project will, however, improve the water quality in the Elk River, which the Clay-Roane PSD and West Virginia-American Water Company use as their potable water source. It will also improve the water quality for hte Town of Clay's water treatment plant, which is located downstream of several of the Town's failing and overflowing sewage pumping stations.

L. LAND USE

Land use is not expected to change substantially as a result of this project. The residential, commercial, and industrial character of the overall Town is not expected to change.

M. MITIGATIVE MEASURES

The primary adverse impacts of noise, dust, erosion, air pollution, and sedimentation during construction would be mitigated by utilizing good construction practices which include proper scheduling of the work hours, erosion and sedimentation controls, prompt clean up, and re-seeding after construction. These mitigative measures would be strictly enforced to ensure that no lasting detrimental environmental consequences would be associated with the project.

N. EFFICIENT USE OF ENERGY AND RESOURCES

The project would be designed to use the most energy efficient equipment and methods currently available for the required processes. The contract documents will address energy efficient construction methods to be used by the contractors. Specified construction materials will ensure a long service life for the proposed water system improvements.

O. STATEMENT REGARDING LAND AVAILABILITY

All aspects of the project will be performed on existing rights-of-way or on properties already owned by the Town. Any necessary easements for the project will be obtained.

PART VII - PROJECT SUMMARIES

A. ENGINEERING SUMMARY

1. PUMPING STATION UPGRADES

- Upgrade the 5 existing pumping stations
- Install emergency generators at necessary pumping stations
- Upgrade the 2 existing simplex grinder pumping stations
- Install emergency generators in necessary grinder pumping stations
- Install telemetry at all of the stations

2. WWTP UPGRADES

- Install new screen
- Convert one existing aeration/clarifier basin to a sequencing batch reactor
- Convert the other aeration/clarifier basin to a digester
- Rehabilitate the existing digester
- Upgrade the existing electrical system
- Install new belt filter press for sludge handling
- Rehabilitate the chlorine contact tank
- Upgrade the building at the plant site
- Purchase a dump truck for the Town

B. COST SUMMARY

1. Project Construction Costs

TABLE 9
PROJECT CONSTRUCTION COST ESTIMATE (PHASE I)

DESCRIPTION	QTY	UNIT	PRICE	TOTAL COST
Pumping Station Upgrade	5	EA	$175,000	$875,000
Emergency Generator for Pumping Station	5	EA	$80,000	$400,000
Simplex Grinder Pump Station Upgrade	2	EA	$50,000	$100,000
Emergency Generator for Grinder Station	2	EA	$20,000	$40,000
Telemetry for Pumping Stations	1	LS	$200,000	$200,000
New Screen Installation	1	LS	$250,000	$250,000
Treatment Basin SBR Conversion	1	LS	$1,000,000	$1,000,000
Digester Rehabilitation	1	LS	$325,000	$325,000
Electrical Modifications	1	LS	$225,000	$225,000
Belt Filter Press	1	LS	$250,000	$250,000
Building Upgrade	1	LS	$250,000	$250,000
Chlorine Contact Tank Rehabilitation	1	LS	$75,000	$75,000
Dump Truck	1	LS	$100,000	$100,000
Job Trailer	2	EA	$12,500	$25,000
Erosion Control	1	LS	$10,000	$10,000
Pre-Construction Video	1	LS	$10,000	$10,000
Mobilization / Demobilization	1	LS	$25,000	$25,000
SUBTOTAL CONSTRUCTION				**$4,160,000**
Contingencies @ 10%				$416,000
TOTAL CONSTRUCTION				**$4,576,000**

2. Proposed Budget

TABLE 10
PUMPING STATION AND WWTP UPGRADES (PHASE I PROJECT)
PRELIMINARY BUDGET SUMMARY

LINE ITEM	COST	TOTAL COST
Construction Cost		$4,160,000
Engineering		
Planning	$35,000	
Design	$325,000	
Bidding	$35,000	
Construction Engineering (16 months)	$128,000	
Resident Project Representative (15 months)	$217,000	
Special Services (Smoke Testing & MH Inspection)	$65,000	
Special Services (Asset Management Plan)	$30,000	
Post Construction	$40,000	
SUBTOTAL		**$875,000**
Legal		
Project Attorney	$15,000	
Rights-of-Way	$5,000	
PSC Attorney	$30,000	
SUBTOTAL		**$50,000**
Administrative / Accounting		
Project Coordinator	$100,000	
CPA	$35,000	
Permits	$25,000	
SUBTOTAL		**$160,000**
Financing		
Interim Financing	$25,000	
Bond Counsel	$50,000	
SUBTOTAL		**$75,000**
Site Easements and ROWs		
Land Acquisition Costs	$0	
Easement Costs	$10,000	
SUBTOTAL		**$10,000**
PROJECT SUBTOTAL		**$5,330,000**
Construction Contingency @ +/- 10%		$416,000
TOTAL PROJECT COST		**$5,746,000**

3. Operation and Maintenance

The project operation and maintenance costs can be found in Table 11.

TABLE 11
ESTIMATED OPERATION AND MAINTENANCE EXPENSES

DESCRIPTION	COST	TOTAL COST
Sludge		
Tipping Fees	$3,750	
Transportation	$3,750	
Belt Press Parts	$1,500	
SUBTOTAL		$9,000
Telemetry		
7 Sites @ $40/month	$3,400	
SUBTOTAL		$3,400
Generators		
Fuel	$2,600	
Maintenance	$2,500	
SUBTOTAL		$5,100
PROJECT O&M SUBTOTAL		**$17,500**
Subtract Existing Annual Sludge Cost		($2,800)
TOTAL ADDITIONAL O&M COST		**$14,700**

4. Existing Debt

The existing debt for the Town of Clay can be found in Table 12.

TABLE 12
CLAY OUTSTANDING DEBT

Lender	Date Issued	Date Matured	Outstanding Balance	Interest Rate	Payment for Year
RDA 1998A	3/27/1998	3/27/2036	$392,233	4.50%	$29,304
WDA 1998B	3/27/1998	3/27/2036	$97,871	0.00%	$4,774

5. Proposed Project Financing

Several funding sources will need to be pursued for this project, including loan funds from the WV DEP's State Revolving Fund (SRF), the WV Infrastructure and Jobs Development Council (IJDC), and the USDA-Rural Utilities Service (RUS), as well as potential grants from the US Economic Development Administration, USDA-RUS, WV IJDC, and other sources.

Short-term financing will need to be secured to allow the project to proceed to the design phase and on to construction in an expeditious manner.

6. User Rates

The sewer rates for Clay are currently a uniform rate of $12.44 per 1,000 gallons. Therefore, if an average usage of 3,400 gallons is assumed, then the average rate for the Town is $42.30. With an estimated 2015 median household income (MHI) of $24,073, the the current bill is 2.1% of MHI. See Appendix H for the current tariff. The current rate will have to be increased to cover the costs of the increased operation and maintenance expenses.

C. PROJECT SCHEDULE

PROJECT SCHEDULE

Submit Application to WV Infrastructure and Jobs Development Council ..... 10 March 2019

Obtain Funding Commitments ..... Sept 2019

Commence Design ..... Sept 2019

Submit Plans and Specifications to WV DEP and PSC ..... March 2020

Approval of Plans and Specifications by WV DEP ..... June 2020

PSC Approval ..... Oct 2020

Receive Bids ..... Aug 2020

Award Construction Contract ..... Nov 2020

Complete Construction ..... March 2022

D. LANDS AND RIGHTS-OF-WAY

All aspects of the project will be performed on existing rights-of-way or on properties already owned by the Town of Clay. Any necessary easements for the project will be obtained.

E. PUBLIC HEALTH BENEFITS

With the construction of the proposed project, the residents of the Town of Clay will be provided with a dependable and efficient wastewater collection system well into the future. It will also improve the water quality in the Elk River, which serves as a source of public water for the Clay Roane PSD , for the West Virginia American Water Company, and for the Town of Clay. This project should prevent a significant number of issues within the system, making it less likely for failures leading to unwanted discharges.

PART VIII - CONCLUSIONS AND RECOMMENDATIONS

A. CONCLUSIONS

1. The Town of Clay currently serves 285 sewer customers.
2. The existing pumping stations have been failing and contributing to significant I/I issues.
3. The existing WWTP has experienced numerous failures which have threatened the Town's ability to meet limits in the existing WV NPDES permit as well as its ability to ensure safety for plant operators.
4. The Town has received Order No. 8202 from the WV DEP for failures at the WWTP, at the pumping stations, and for excessive I/I in the system.
5. The collection system has experienced significant I/I (75% of treated flows) and is in need of smoke testing and manhole inspection to discern information on I/I sources in the system.
6. The project will be Phase I of a two-phase project, where Phase I will involve upgrading the pumping stations and WWTP as well as smoke testing and inspecting manholes in the collection system. Phase II will be addressing I/I issues discovered by smoke testing as well as finishing any necessary upgrades at the WWTP.
7. The cost of Phase I for the project is approximately $5.57 million.
8. Grants and low interest loans are available to fund the project.

B. RECOMMENDATIONS

The Town of Clay should proceed immediately to acquire loan funding for upgrading its existing wastewater treatment plant and sewage pumping stations. The Town should also acquire

short-term funding to conduct the smoke testing of the collection system as well as for the design of the sewage pump station and treatment plant upgrades.