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Source Water Protection Plan
Petersburg Town Of

PWSID: WV3301204

Grant County

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Prepared By:

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In cooperation with Petersburg Town Of

WV Bureau for Public Health, Source Water Assessment and Protection Program

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I Certify the information in the source water protection plan is complete and accurate to the best of my knowledge.

Responsible party of designee authorized to sign for water utility is on file:

Sheila Vanmeter

Name of Authorizing Signatory:

City Manager

Title of Authorizing Signatory:

8/12/2021

Date of Submission (mm/dd/yyyy):

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SOURCE WATER PROGRAM ACRONYMS

AST	Aboveground Storage Tank
BMP	Best Management Practices
ERP	Emergency Response Plan
GWUDI	Ground Water Under the Direct Influence of Surface Water
LEPC	Local Emergency Planning Committee
OEHS	EED Office of Environmental Health Services/Environmental Engineering Division
PE	Professional Engineer
PSSCs	Potential Source of Significant Contamination
PWSU	Public Water System Utility
RAIN	River Alert Information Network
RPDC	Regional Planning and Development Council
SDWA	Safe Drinking Water Act
SWAP	Source Water Assessment and Protection
SWAPP	Source Water Assessment and Protection Program
SWP	Source Water Protection
SWPA	Source Water Protection Area
SWPP	Source Water Protection Plan
WARN	Water/Wastewater Agency Response Network
WHPA	Wellhead Protection Area
WHPP	Wellhead Protection Program
WSDA	Watershed Delineation Area
WVBPH	West Virginia Bureau for Public Health
WVDEP	West Virginia Department of Environmental Protection
WVDHHR	West Virginia Department of Health and Human Resources
WVDHSEM	West Virginia Division of Homeland Security and Emergency Management
ZCC	Zone of Critical Concern
ZPC	Zone of Peripheral Concern

1.0 PURPOSE

The goal of the West Virginia Bureau of Public Health (WVBPH) source water assessment and protection (SWAP) program is to prevent degradation of source waters which may preclude present and future uses of drinking water supplies to provide safe water in sufficient quantity to users. The most efficient way to accomplish this goal is to encourage and oversee source water protection on a local level. Many aspects of source water protection may be best addressed by engaging local stakeholders.

The intent of this document is to describe what Petersburg Town Of has done, is currently doing, and plans to do to protect its source of drinking water. Although this water system treats the water to meet federal and state drinking water standards, conventional treatment does not fully eradicate all potential contaminants and treatment that goes beyond conventional methods is often very expensive. By completing this plan, Petersburg Town Of acknowledges that implementing measures to minimize and mitigate contamination can be a relatively economical way to help ensure the safety of the drinking water.

1.1. WHAT ARE THE BENEFITS OF PREPARING A SOURCE WATER PROTECTION PLAN?

- Fulfilling the requirement for the public water utilities to complete or update their source water protection plan.
- Identifying and prioritizing potential threats to the source of drinking water; and establishing strategies to minimize the threats.
- Planning for emergency response to incidents that compromise the water supply by contamination or depletion, including how the public, state, and local agencies will be informed.
- Planning for future expansion and development, including establishing secondary sources of water.
- Ensuring conditions to provide the safest and highest quality drinking water to customers at the lowest possible cost.
- Providing more opportunities for funding to improve infrastructure, purchase land in the protection area, and other improvements to the intake or source water protection areas.

2.0 BACKGROUND: WV SOURCE WATER ASSESSMENT AND PROTECTION PROGRAM

Since 1974, the federal Safe Drinking Water Act (SDWA) has set minimum standards on the construction, operation, and quality of water provided by public water systems. In 1986, Congress amended the SDWA. A portion of those amendments were designed to protect the source water contribution areas around ground water supply wells. This program eventually became known as the Wellhead Protection Program (WHPP). The purpose of the WHPP is to prevent pollution of the source water supplying the wells.

The Safe Drinking Water Act Amendments of 1996 expanded the concept of wellhead protection to include surface water sources under the umbrella term of Source Water Protection. The amendments encourage states to establish SWAP programs to protect all public drinking water supplies. As part of this initiative states must explain how protection areas for each public water system will be delineated, how potential contaminant sources will be inventoried, and how susceptibility ratings will be established.

In 1999, the WVBPH published the West Virginia Source Water Assessment and Protection Program, which was endorsed by the United States Environmental Protection Agency. Over the next few years, WVBPH staff completed an assessment (i.e., delineation, inventory and susceptibility analysis) for all of West Virginia's public water systems. Each public water system was sent a copy of its assessment report. Information regarding assessment reports for Petersburg Town Of can be found in **Table 1**.

3.0 STATE REGULATORY REQUIREMENTS

On June 6, 2014, §16 1 2 and §16 1 9a of the Code of West Virginia, 1931,was reenacted and amended by adding three new sections, designated §16 1 9c, §16 1 9d and §16-1-9e. The changes to the code outlines specific requirements for public water utilities that draw water from a surface water source or a surface water influenced groundwater source.

Under the amended and new codes each existing public water utility using surface water or ground water influenced by surface water as a source must have completed or updated a source water protection plan by July 1, 2016, and must continue to update their plan every three years. Existing source water protection plans have been developed for many public water utilities in the past. If available, these plans were reviewed and considered in the development of this updated plan. Any new water system established after July 1, 2016 must submit a source water protection plan before they start to operate. A new plan is also required when there is a significant change in the potential sources of significant contamination (PSSC) within the zone of critical concern (ZCC).

The code also requires that public water utilities include details regarding PSSCs, protection measures, system capacities, contingency plans, and communication plans. Before a plan can be approved, the local health department and public will be invited to contribute information for consideration. In some instances, public water utilities may be asked to conduct independent studies of the source water protection area and specific threats to gain additional information.

4.0 SYSTEM INFORMATION

PETERSBURG TOWN OF is classified as a state regulated public utility and operates a community public water system. A community public water system is a system that regularly supplies drinking water from its own sources to at least 15 service connections used by year round residents of the area or regularly serves 25 or more people throughout the entire year. For purposes of this source water protection plan, community public water systems are also referred to as public water utilities. Information on the population served by this utility is presented in **Table 1** below.

Table 1. Population Served by PETERSBURG TOWN OF

Administrative office location:	21 Mountain View Street, Petersburg, GRANT, WV, 26748		
Is the system a public utility, according to the Public Service Commission rule?	Yes		
Date of Most Recent Source Water Assessment Report:	3/1/2003		
Date of Most Recent Source Water Protection Plan:	7/1/2019		
Population served directly:	2841		
Bulk Water Purchaser Systems:	System Name	PWSID Number	Population
	Grant County PSD North Fork - Maysville	3301206	4135
	Grant County PSD US 220S	3301207	1742
	Grant County PSD Welton Orchard	3301209	218
Total Population Served by the Utility:	2841		
Does utility have multiple Source Water Protection Areas(SWPAs)?	No		
How many SWPAs does the utility have?	1		

5.0 WATER TREATMENT AND STORAGE

As required, Petersburg Town Of has assessed their system (e.g., treatment capacity, storage capacity, unaccounted for water, contingency plans) to evaluate their ability to provide drinking water and protect public health. **Table 2** contains information on the water treatment methods and capacity of the utility.Information about the surface sources from which Petersburg Town Of draws water can be found in **Table 3.** If the utility draws water from any groundwater sources to blend with the surface water the information about these ground water sources can be found in **Table 4.**

Table 2. Petersburg Town Of Water Treatment Information

Default Facility	
Water treatment processes (in order of occurrence) includes:	WesTech Filtration, 20" Intake from the South Branch Potomac River, 2,400 gmp Duplex Intake Structure, 2- 322,000 Gallon Flocculation Carifier Tanks with Mixer, 2- 8 cell WesTech Filters, 2- Transfer Pumps, 241,000 Gallon Clearwell, 3- 1,200 gallon High Service Pumps
The treatment capacity is approximately (GPD):	3,500,000
Current average production is approximately (GPD):	907,820
Maximum gallons of water treated and produced at that plant in one day during the past year was:	1,350,700
Minimum gallons of water treated and produced at that plant in one day during the past year was:	585,900
Plant is operated an average of hours a day:	6
Maximum number of hours of operation in one day at that plant during the past year was:	13
Minimum number of hours of operation in one day at that plant during the past year was:	4
How many storage tank(s) are maintained on systems distrbution system:	3
Total gallons of treated water storage:	2,531,000
Total gallons of raw water storage (GALs):	644,000

Table 3. Petersburg Town Of Surface Water Sources

Intake Name	Facility #	Local Name	Describe Intake	State Id Code	Date Constructed / Modified	Frequency of Use (Primary / Backup / Emergency)	Activity Status (Active/Inactive)
SOUTH BRANCH POTOMAC RIVER	1940044	PETERSBURG WATER PRIMARY	20" Primary with 3' x 5' Stainless Steel Screen	IN001	1/1/2010	Permanent	Active

Table 4. Petersburg Town Of Ground Water Sources

Well/Spring Name	Facility #	Local Name	Date Constructed / Modified	Completion Report Available (Yes/No)	Well Depth (ft)	Casting Depth (ft)	Grout (Yes/No)	Frequency of Use (Primary / Backup / Emergency)	Activity Status (Active/Inactive)

6.0 DELINEATIONS

For surface water systems, delineation is the process used to identify and map the drainage basin that supplies water to a surface water intake. This area is generally referred to as the source water protection area (SWPA). All surface waters are susceptible to contamination because they are exposed at the surface and lack a protective barrier from contamination. Accidental spills, releases, sudden precipitation events that result in overland runoff, or storm sewer discharges can allow pollutants to readily enter the source water and potentially contaminate the drinking water at the intake. The SWPA for surface water is distinguished as a Watershed Delineation Area (WSDA) for planning purposes; and the Zone of Peripheral Concern (ZPC) and Zone of Critical Concern (ZCC) are defined for regulatory purposes.

The WSDA includes the entire watershed area upstream of the intake to the boundary of the State of West Virginia border, or a topographic boundary. The ZCC for a public surface water supply is a corridor along streams within the watershed that warrant more detailed scrutiny due to its proximity to the surface water intake and the intake's susceptibility to potential contaminants within that corridor. The ZCC is determined using a mathematical model that accounts for stream flows, gradient and area topography. The length of the ZCC is based on a five-hour time-of-travel of water in the streams to the water intake, plus an additional one-quarter mile below the water intake. The width of the zone of critical concern is 1,000 feet measured horizontally from each bank of the principal stream, and five hundred feet measured horizontally from each bank of the tributaries draining into the principal stream. Ohio River ZCC delineations are based on ORSANCO guidance and extend 25 miles above the intake. The Ohio River ZCC delineations include 1,320 feet (1/4 mile) measured from the bank of the main stem of the Ohio River and 500 feet on a tributary.

The ZPC for a public surface water supply source and for a public surface water influenced groundwater supply source is a corridor along streams within a watershed that warrants scrutiny due to its proximity to the surface water intake and the intake's susceptibility to potential contaminants within that corridor. The ZPC is determined using a mathematical model that accounts for stream flows, gradient and area topography. The length of the zone of peripheral concern is based on an additional five-hour time-of-travel of water in the streams beyond the perimeter of the zone of critical concern, which creates a protection zone of ten hours above the water intake. The width of the zone of peripheral concern is one thousand feet measured horizontally from each bank of the principal stream and five hundred feet measured horizontally from each bank of the tributaries draining into the principal stream.

For groundwater supplies there are two types of SWPA delineations: 1) wellhead delineations and 2) conjunctive delineations, which are developed for supplies identified as groundwater under the direct influence of surface water, or GWUDIs. A wellhead protection area is determined to be the area contributing to the recharge of the groundwater source (well or spring), within a five year time of travel. A conjunctive delineation combines a wellhead protection area for the hydrogeologic recharge and a connected surface area contributing to the wellhead.

Information and maps of the WSDA, ZCC, ZPC and Wellhead Protection Area for this public water supply were provided to the utility and are attached to this report. See **Appendix A. Figures.** Other information about the WSDA is shown in **Table 5.**

Table 5. Watershed Delineation Information

Intake Name	South Branch Potomac River
Size of WSDA (Square Miles)	656
River Watershed Name (8-digit HUC)	South Branch Potomac - 02070001
Size of Zone of Critical Concern (Acres)	17296
Size of Zone of Peripheral Concern (Acres) (Include ZCC area)	26665
Do you blend with ground water	No
Do you have an intake or well/spring missing from the list?	No

7.0 PROTECTION TEAM

One important step in preparing a source water protection plan is to organize a source water protection team who will help develop and implement the plan. The legislative rule requires that water utilities make every effort to inform and engage the public, local government, local emergency planners, the local health department and affected residents at all levels of the development of the protection plan. WVBPH recommends that the water utility invite representatives from these organizations to join the protection team, which will ensure that they are given an opportunity to contribute in all aspects of source water protection plan development. Public water utilities should document their efforts to engage representatives and provide an explanation if any local stakeholder is unable to participate. In addition, other local stakeholders may be invited to participate on the team or contribute information to be considered. These individuals may be emergency response personnel, local decision makers, business and industry representatives, land owners (of land in the protection area), and additional concerned citizens.

The administrative contact for Petersburg Town Of is responsible for assembling the protection team and ensuring that members are provided the opportunity to contribute to the development of the plan. The acting members of the Protection Team are listed in **Table 6.**

The role of the protection team members will be to contribute information to the development of the source water protection plan, review draft plans and make recommendations to ensure accuracy and completeness, and when possible contribute to implementation and maintenance of the protection plan. The protection team members are chosen as trusted representatives of the community served by the water utility and may be designated to access confidential data that contains details about the local PSSCs. The input of the protection team will be carefully considered by the water utility when making final decisions relative to the documentation and implementation of the source water protection plan.

Petersburg Town Of will be responsible for updating the source water protection plan and rely upon input from the protection team and the public to better inform their decisions. To find out how you can become involved as a participant or contributor, visit the utility website or call the utility phone number, which are provided in **Table 6.**

Table 6. Protection Team Member and Contact Information

Name	Representing	Title	Phone Number	Email
Robert Spanswick	Petersburg Town Of	Water Commisioner	(304)257-4877	pburgwater@frontiernet.net
Frank Sharp	Petersburg Town Of	Chief Operator	(304)257-4877	pburgwater@frontiernet.net
Collin Sherman	Petersburg Town Of	Health Inspector	(304)257-4922	
	Petersburg Town Of			
Peggy Alt	Petersburg Town Of	Coordinator	(304)257-2140	grantcooes@citlink.net
	Petersburg Town Of		(304)668-2056	ras@forthillhotel
Pat Halterman	City of Petersburg Water Department	Operator	(304)257-4877	
Frank Ketterman	City of Petersburg Water Department	Operator		pburgwater@frontiernet.net
Date of First Protection Team Meeting:		Protection Team Meeting was held Wednesday, May 11, 2016 at Petersburg Town Of. Meeting minutes attached in Appendix E.		
Efforts made to inform and engage local stakeholders (public, local government, local emergency planners, local health department, and affected residents) and explain absence of recommended stakeholders		Direct contact made with each of the members of the protection team. Collin Sherman was not available for the initial meeting due to previous commitments. Public Notice was place in the paper for the public meeting to review the SWPP. PUBLIC MEETING MAY 29, 2019 PETERSBURG CITY HALL		

8.0 POTENTIAL SOURCES OF SIGNIFICANT CONTAMINATION

Source water protection plans should provide a complete and comprehensive list of the PSSCs contained within the ZCC, based upon information obtained from the WVBPH, working in cooperation with the West Virginia Department of Environmental Protection (WVDEP) and the West Virginia Division of Homeland Security and Emergency Management (WVDHSEM). A facility or activity is listed as a PSSC if it has the potential to release a contaminant that could potentially impact a nearby public water supply, and it does not necessarily indicate that any release has occurred.

The list of PSSCs located in the SWPA is organized into two types: 1) SWAP PSSCs, and 2) Regulated Data. SWAP PSSCs are those that have been collected and verified by the WVBPH SWAP program during previous field investigations to form source water assessment reports and source water protection plans. Regulated PSSCs are derived from federal and state regulated databases, and may include data from WVDEP, US Environmental Protection Agency, WVDHSEM, and from state data sources.

8.1. CONFIDENTIALITY OF PSSCS

A list of the PSSCs contained within the ZCC should be included in the source water protection plan. In the event of a chemical spill, release or other related emergency, information pertaining to the contaminant shall be immediately disseminated to any emergency responders reporting to the site. The designees for Petersburg Town Of are identified in the communication planning section of the source water protection plan.

PSSC data from some agencies (ex. WVDHSEM, WVDEP, etc.) may be restricted due to the sensitive nature of the data. Locational data will be provided to the public water utility. However, to obtain specific details regarding contaminants, (such as information included in Tier II reports), water utilities should contact the local emergency planning commission (LEPC) or agencies, directly. While the maps and lists of the PSSCs and regulated sites are to be maintained in a confidential manner, these data are provided in **Appendix A. Figures** for internal review and planning uses only.

8.2. LOCAL AND REGIONAL PSSCS

For the purposes of this source water protection plan, local PSSCs are those that are identified by local stakeholders in addition to the PSSCs lists distributed by the WVBPH and other agencies. Local stakeholders may identify local PSSCs for two main reasons. The first is that it is possible that threats exist from unregulated sources and land uses that have not already been inventoried and do not appear in regulated databases. For this reason each public water utility should investigate their protection area for local PSSCs. A PSSC inventory should identify all contaminant sources and land uses in the delineated ZCC. The second reason local PSSCs are identified is because public water utilities may consider expanding the PSSC inventory effort outside of the ZCC into the ZPC and WSDA if necessary to properly identify all threats that could impact the drinking water source. As the utility considers threats in the watershed they may consider collaborating with upstream communities to identify and manage regional PSSCs.

When conducting local and regional PSSC inventories, utilities should consider that some sources may be obvious like above ground storage tanks, landfills, livestock confinement areas, highway or railroad right of ways, and sewage treatment facilities. Others are harder to locate like abandoned cesspools, underground tanks, French

drains, dry wells, or old dumps and mines.

The Petersburg Town Of reviewed intake locations and the delineated SWPAs to verify the existence of PSSCs provided by the WVBPH and identify new PSSCs. If possible, locations of regulated sites within the SWPA were confirmed. Information on any new or updated PSSCs identified by Petersburg Town Of and not already appearing in datasets from the WVBPH can be found in .**Table 7**.

Table 7. Locally Identified potential Sources of Significant Contamination

Please see Appendix A to view this information.

8.3. PRIORITIZATION OF THREATS AND MANAGEMENT STRATEGIES

Once the utility has identified local concerns, they must develop a management plan that identifies specific activities that will be pursued by the public water utility in cooperation and concert with the WVBPH, local health departments, local emergency responders, LEPC and other agencies and organizations to protect the source water from contamination threats.

Depending on the number identified, it may not be feasible to develop management strategies for all of the PSSCs in the SWPA. The identified PSSCs can be prioritized by potential threat to water quality, proximity to the intake(s), and local concern. The highest priority PSSCs can be addressed first in the initial management plan. Lower ranked PSSCs can be addressed in the future as time and resources allow. To assess the threat to the source water, water systems should consider confidential information about each PSSC. This information may be obtained from state or local emergency planning agencies, Tier II reports, facility owner, facility groundwater protection plans, spill prevention response plans, results of field investigations, etc.

In addition to identifying and prioritizing PSSCs within the SWPA, local source water concerns may also focus on critical areas. For the purposes of this source water protection plan, a critical area is defined as an area that is identified by local stakeholders and can lie within or outside of the ZCC. Critical areas may contain one or more PSSCs which would require immediate response to address a potential incident that could impact the source water.

A list of these priority PSSCs was selected and ranked by the Petersburg Town Of Protection Team. This list reflects the concerns of this specific utility and may contain PSSCs not previously identified and not within the ZCC or ZPC. **Table 8** contains a description of why each critical area or PSSC is considered a threat and what management strategies the utility is either currently using or could use in the future to address each threat.

9.0 IMPLEMENTATION PLAN FOR MANAGEMENT STRATEGIES

Petersburg Town Of reviewed the recommended strategies listed in their previous source water protection plan, to consider if any of them should be adopted and incorporated in this updated plan. **Table 9** provides a brief statement summarizing the status of the recommended strategies. **Table 9** also lists strategies from a previous plan that are being incorporated in this plan update.

When considering source management strategies and education and outreach strategies, this utility has considered how and when the strategies will be implemented. The initial step in implementation is to establish responsible parties and timelines to implement the strategies. The water utility, working in conjunction with the Protection Team members, can determine the best process for completing activities within the projected time periods. Additional meetings may be needed during the initial effort to complete activities, after which the Protection Team should consider meeting annually to review and update the Source Water Protection Plan. A system of regular updates should be included in every implementation plan.

Proposed commitments and schedules may change but should be well documented and reported to the local stakeholders. If possible, utilities should include cost estimates for strategies to better plan for implementation and possible funding opportunities. Petersburg Town Of has developed an implementation plan for priority concerns listed in **Table 8**. The responsible team member, timeline, and potential cost of each strategy are presented in **Table 9**. Note: Because timelines may change, future plan updates should describe the status of each strategy and explain the lack of progress.

Table 8. Priority PSSCs or Critical Areas

PSSC or Critical Area	Priority Number	Reason for Concern
Septic Tanks and Sewer Systems	1	There are residential septic systems in the protection watershed. Failing septic systems can leach into surrounding soils or run off into surface water. Untreated runoff can increase bacterial concentrations in source water, especially when the river is at low flow conditions. Under normal operating conditions privately owned sewage treatment systems (package plants) and injection wells would not be expected to contaminate source water. However, accidental raw sewage overflows or emergencies at the plant may allow untreated sewage to contaminate the surface water source. Untreated sewage contains total coliform, particularly E. coli, along with other bacteria and parasites that could negatively impact human health if treatment processes are not adjusted to address the contamination.
Agricultural Land Uses	2	Pesticides and other chemicals used for farm operations can migrate into the water supply. Concentrated animal feeding operations for poultry production are common in the watershed. Poultry litter is spread on fields seasonally in or near the SWPA. Nitrates from poultry litter could be a potential problem, but significant concentrations have not yet been detected by raw water sampling.
Highway Traffic and Maintenance	3	State Route 28/55 runs along the North Fork of the South Branch and the South Branch upstream of the source water intake. If a highway accident were to occur, spilled materials could potentially contaminate the source water.
Railroad	4	Railroad tracks run along the South Branch River. The tracks are primarily used by the Potomac Eagle excursion train, but freight trains sometimes carry chicken feed and freight from the polymer factory. A spill (locomotive fuel or transported materials) could contaminate ground water in close proximity to the river. A spill would be unlikely to contaminate surface water because the railroad tracks are located behind the levy.
Campgrounds and River Recreation	5	The South Branch river has several areas used for recreation in the SWPA, including the Smoke Hole Recreation Area, as well as tourism development in Cabins, WV. While downstream of the SWPA, the Trough is also a popular boating destination. Septic systems associated with cabins and campgrounds have the potential to contaminate surface water if not properly maintained. Oils, antifreeze, and other automotive fluids from recreational vehicles could contaminate water if not properly contained.
Limestone Quarry	6	There are limestone quarries located in the vicinity of the ZCC. While limestone itself would not be expected to be harmful to source water, vehicles and industrial equipment associated with the quarry could leak fuel or lubricants into surface or groundwater.
Airport	7	The Grant County Airport is located within the protection watershed, but unlike most of the other nearby industrial facilities, the airport is not separated from the river by the levy. Given the relatively close proximity of the runway to the river, deicing, fueling, and maintenance activities at the airport could affect surface water quality in the South Branch.

Industrial Sites	8	There is a plastics plant in the SWPA. The Adell Polymers facility is upstream of the water intake, but is unlikely to impact water quality because it is located behind the river levy, and discharges wastewater to the city sanitary sewer. Some chemicals associated with industrial processes are classified as volatile organic compounds, synthetic organic compounds, petroleum hydrocarbons, metals, and heavy metals. Accidental spills of these chemicals could migrate into shallow groundwater and endanger human health if not promptly remediated.
Fuel Distributor, Auto Repair Shops, Gas Stations, and Trucking Companies	9	Oils, antifreeze, and other automobile fluids can cause contamination of water sources if not cleaned up and disposed of properly. Above ground and Underground Storage Tanks (USTs), particularly those at historic sites, may leak and contaminate groundwater sources. In addition, stormwater runoff from industrial and commercial sites may also contain automotive fluids and other substances that if not managed properly could contaminate water resources.

Table 9. Priority PSSC Management Strategies

PSSC or Critical Area	Management Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Industrial Sites	Become more familiar with the activities at the industrial sites, particularly storage and transport of hazardous materials. Also, review the groundwater protection plans for industry. These plans are required for industry that may impact groundwater and will contain measures that are also protective of the surface water. Coordinate with company emergency preparedness personnel to insure that they are aware of the water intake and what to do in case of an emergency, including notification so that the intake can be shut down to prevent contamination from being drawn into the treatment plant. Ask for copies of the facilities Materials Safety Data Sheets (MSDS) for the chemicals used/stored on site. The MSDS sheets are information sheets provided	Water Department	Ongoing		Meetings with owners. Mail out information on MSDS and copies.

Table 9. Priority PSSC Management Strategies

PSSC or Critical Area	Management Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
	by the manufacturer explaining how to deal with first aid, and spills of the chemical product. A facility should have a central location of these sheets and provide them if requested by the public or emergency responders.				
Agricultural Land Uses	Work with the County Extension Service, the Soil and Water Conservation District, and/or the Natural Resource Conservation Service to provide copies of fact sheets covering best management practices (BMPs) for nutrient management, pesticide use, pest management, waste oil disposal, safe chemical handling and/or safe chemical storage. Consider working with the local Future Farmers of America members to distribute educational materials and best management practices information. Continue to monitor for nitrates in raw water, especially during spring and fall when poultry manure is spread on fields.	Water Department	Ongoing	Can provide information to BMP's once the social media page is online.	Meetings with land owners. Raw water tests.

Table 9. Priority PSSC Management Strategies

PSSC or Critical Area	Management Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Highway Traffic and Maintenance	Continue to coordinate with emergency officials to be better prepared in the event of a hazardous spill. Explore the possibility of erecting signs within the SWPA to alert motor carriers of the emergency number(s) to call should a spill occur. Contact carriers that transport materials within the SWPA and identify the types of materials commonly transported. This information will be used to inform and properly prepare emergency response personnel.	OES, Water Department	Ongoing		Signage
Limestone Quarry	Inventory quarry areas and determine the extent of mined areas that are draining into the surface water source. Contact WVDHHR SWAP at 304-558-2981 for assistance on obtaining mapping and identifying potential threats. Or visit the WV Geological and Economic Survey at http://www.wvgs.wvnet.edu/ to view or request mapping, directly. Once aware of existing quarries, participate in public comments periods before WVDEP issues injection or mining permits for those areas. For more information on the public comment process and WVDEP program, concerned citizens can visit: http://www.dep.wv.gov/environmentaladvocate/Documents/DEP2008CitizensGuide.pdf	Water Department	Ongoing		Meeting with Quarry. Public meetings.

Table 9. Priority PSSC Management Strategies

PSSC or Critical Area	Management Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Airport	Contact the Airport maintenance personnel to discuss the application of deicing agents, such as those used on aircraft and runways. Determine the use of best management practices to control run off of deicing agents into the source water. Review operations and maintenance procedures for above ground storage tanks at the airport. See strategies above that address fuel oil spill prevention and clean up.	Water Department	Ongoing		Meeting with airport personnel.
Railroad	Contact the railroad companies to determine the average number of daily (or weekly) trains passing in the SWPA and what types of materials these trains are transporting. Identify what track maintenance activities are performed at this location. Work with the railroad company to create an emergency response plan should any contamination of the source water occur.	Water Department	Ongoing		Meeting with railroad companies.

Table 9. Priority PSSC Management Strategies

PSSC or Critical Area	Management Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Fuel Distributor, Auto Repair Shops, Gas Stations, and Trucking Companies	Communicate with facility owners the need for them to properly dispose of oil and other automobile products. Ask them to follow regulations and institute BMPs to contain and clean up spills. One such regulation is installing secondary containment around above ground storage tanks and/or chemical storage areas. Monitor compliance with state environmental regulations. Provide owners or operators with copies of material on underground storage tank maintenance. Consider whether fuel distributors and gas stations are compliant with rules regarding USTs and leaking underground storage tanks (LUSTs). If you suspect an issue with an UST or LUST, contact the WVDEP at (304)926-0499 and ask for the Underground Storage Tank Staff for an inspection. Determine if stormwater management at commercial/industrial facilities includes oil/grease separators. Remind owners/operators to maintain the separators and dispose of petroleum products responsibly to prevent them from entering water resources. Inquire about facilities Groundwater Protection Plans (GPPs) and ask that the facilities consider the source water in planning and implementing BMPs.	Health Department and Water Department	Ongoing	Can provide information to BMP's once the social media page is online.	Meeting with owners.

Table 9. Priority PSSC Management Strategies

PSSC or Critical Area	Management Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Campgrounds and River Recreation	Meet with campground managers to review maintenance schedules for septic systems adjacent to the South Branch and its tributaries. Also communicate the need to contain waste oil and automotive fluids associated with recreational vehicles. Work with the county health department and city planners to identify areas in the SWPA where sewer line extensions might be appropriate.	Water Department, Health Department	Ongoing		Meeting with owners.
Septic Tanks and Sewer Systems	Work with the county health department to identify areas in the SWPA where home owners may need to install septic system or service existing systems. Consider teaming with community to identify areas that would benefit from a cluster system or waste water line extension to eliminate straight pipes and/or malfunctioning septic systems. Meet with local sewer system operators to review the system's standard operating and emergency procedures.	Health Department and Water Department	Ongoing		Meetings with private owners and sewer system operators.

10.0 EDUCATION AND OUTREACH STRATEGIES

The goal of education and outreach is to raise awareness of the need to protect drinking water supplies and build support for implementation strategies. Education and outreach activities will also ensure that affected citizens and other local stakeholders are kept informed and provided an opportunity to contribute to the development of the source water protection plan. Petersburg Town Of has created an Education and Outreach plan that describes activities it has either already implemented or could implement in the future to keep the local community involved in protecting their source of drinking water. This information can be found in **Table 10**.

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Consumer Confidence Report	The water system publishes a Consumer Confidence Report (CCR) annually, as required by the Safe Drinking Water Act, which is sent to all water customers. Information concerning the Source Water Assessment is included in the CCR. In the future, the system will include a reference to this source water protection plan and how customers can access a copy.	Water Department	Ongoing	Done as required.	Mail outs
Consumer Confidence Report	n/a	n/a	Not Started		
County Fair and Festivals	Consider providing information on source water protection for the County Health Department's booth at the County Fair, should they have one.	Health Department, City of Petersburg	Not Started		Handout info.

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
School Curricula	Work with the school system to incorporate source water activities into the school curricula. One example of school curricula is Project WET. For more information regarding free workshops to educate area teachers on Project WET, visit http://www.dep.wv.gov/WWE/getinvolved/WET/Pages/default.aspx, or contact the WVDEP at 304-926-0495. In addition, the USEPA offers free educational materials for teachers and students, including classroom lessons, fact sheets, and interactive games and activities, for grades K-12. These materials can be accessed at the following websites. For general source water protection: http://www.epa.gov/safewater/kids/index.html. For water conservation: http://www.epa.gov/watersense/resources/educational_materials.html Similar protection and conservation related resources can be found at the Groundwater Foundation website; http://www.groundwater.org/kc/kc.html Visit school or invite students for a plant tour to tie in with school curricula. Ask the school to include message in school newsletter to raise awareness about source water protection and conservation.	Water Department	Ongoing	Samples are also available from WVRWA.	Printout / mail out samples. Instructional time requirements.

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
School Curricula	n/a	n/a	Not Started		
School Curricula	n/a	n/a	Not Started		
School Curricula	n/a	n/a	Not Started		
Plant Tours	Provide tours of the water plant to interested organizations such as watershed groups, schools, and civic organizations. Tours are offered as requested. Organize a tour with local Emergency Responders to make them familiar with the facilities in the event of an emergency.	Water Department	Ongoing		Meetings – educational handouts.
Plant Tours	n/a	n/a	Not Started		

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Brochures, Pamphlets, and Letters	Send a letter and/or brochure providing educational information to residences and businesses. These will alert the recipients of the need for source water protection and conservation. Businesses that use greater-than-household quantities of regulated substances may receive a different letter. Funding for the brochures may be available through the Wellhead and Source Water Protection Grant Program. Several organizations provide information and resources on the internet, related to certain source water concerns and PCSs. The utility will consider obtaining these materials when needed, to educate the community. Examples of these resources are described below. The Source Water Collaborative has released an educational brochure building tool to assist with creating custom brochures targeting local decision makers. This tool is available at: http://www.yourwateryourdecision.org and may assist in community planning and development. USEPA Water Sense Simple Steps to Save Water (EPA-832-F-07-011) presents benefits of conserving water. Focusing not only on the environment, but also on the financial savings associated with	Water Department	Ongoing	Samples are also available from WVRWA. Easier to provide through social media.	Printing of brochures, pamphlets, and letters

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
	conservation. The brochure can be viewed at: http://www.epa.gov/watersense/docs/ws_simplesteps508.pdf				
Brochures, Pamphlets, and Letters	n/a	n/a	Not Started		
Brochures, Pamphlets, and Letters	n/a	n/a	Not Started		
Brochures, Pamphlets, and Letters	n/a	n/a	Not Started		
Brochures, Pamphlets, and Letters	n/a	n/a	Not Started		
Partner with Watershed Association	Partner with local watershed associations or other civic groups. These groups may have similar goals and available volunteers that can integrate source water protection into their efforts.	Water Department	Ongoing		Meetings

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Public Meeting	Hold an informational meeting with local residents about source water protection efforts. The meeting will increase awareness of the connection between land use and drinking water quality. This meeting could be structured as a water fair/public event with drinking water displays and activities. This can be combined with activities of the local watershed associations.	City of Petersburg	Ongoing	Possible to add to a regular council meeting.	Meeting costs
Emergency Planning and Coordination	Participate with local fire departments and County Emergency Services on a regular basis. This will ensure that all the agencies are in constant communication with one another and prepared in the event of an emergency.	EOS, Water Department, and Health Department	Ongoing	Possible to add to a regular council meeting.	Meetings
CCR Pharmaceuticals	Due to recent heightened concerns about the effects of pharmaceuticals in surface water bodies, include in the 2010 CCR information about pharmaceuticals and how to properly dispose of them. Obtain and distribute pamphlets developed by the Ohio River Valley Water Sanitation Commission regarding pharmaceutical disposal. This pamphlet can be viewed and possibly ordered from: http://orsanco.org/index.php/brochures	Water Department	Ongoing	Done as required.	Mail outs

Table 10. Education and Outreach Implementation Plan

Education and Outreach Strategy	Description of Activity	Responsible Protection Team Member	Status / Schedule	Comments	Estimated Cost
Social Media	Add SWPP to a social media page prepared for the City. The page can provide direct links to BMP's from the OES and Health Department along with the SWPP.	City of Petersburg	Ongoing	The City is in the process of adding social media.	Website fees
Media Campaign	Work with the local television stations to post source water and drinking water fact bulletins on public access television.	City of Petersburg	Not Started		Mail out and brochures / pamphlets
Media Campaign	n/a	n/a	Not Started		

11.0 CONTINGENCY PLAN

The goal of contingency planning is to identify and document how the utility will prepare for and respond to any drinking water shortages or emergencies that may occur due to short and long term water interruption, or incidents of spill or contamination. During contingency planning, utilities should examine their capacity to protect their intake, treatment, and distribution system from contamination. They should also review their ability to use alternative sources and minimize water loss, as well as their ability to operate during power outages. In addition, utilities should report the feasibility of establishing an early warning monitoring system and meeting future water demands.

Isolating or diverting any possible contaminant from the intake for a public water system is an important strategy in the event of an emergency. One commonly used method of diverting contaminants from an intake is establishing booms around the intake. This can be effective, but only for contaminants that float on the surface of the water. Alternatively, utilities can choose to pump floating contaminants from the water or chemically neutralize the contaminant before it enters the treatment facility.

Public utilities using surface sources should be able to close the intake by one means or another. However, depending upon the system, methods for doing so could vary greatly and include closing valves, lowering hatches or gates, raising the intake piping out of the water, or shutting down pumps. Systems should have plans in place in advance as to the best method to protect the intake and treatment facility. Utilities may benefit from turning off pumps and, if possible, closing the intake opening to prevent contaminants from entering the piping leading to the pumps. Utilities should also have a plan in place to sample raw water to identify the movement of a contaminant plume and allow for maximum pumping time before shutting down an intake (See Early Warning Monitoring System). The amount of time that an intake can remain closed depends on the water infrastructure and should be determined by the utility before an emergency occurs. The longer an intake can remain closed in such a case, the better.

Raw and treated water storage capacity also becomes extremely important in the event of such an emergency. Storage capacity can directly determine how effectively a water system can respond to a contamination event and how long an intake can remain closed. Information regarding the water shortage response capability of Petersburg Town Of is provided in **Table 11**.

11.1. RESPONSE NETWORKS AND COMMUNICATION

PSSC data from some agencies (ex. WVDHSEM, WVDEP, etc.) may be restricted due to the sensitive nature of the data. Locational data will be provided to the public water utility. However, to obtain specific details regarding contaminants, (such as information included in Tier II reports), water utilities should contact the local emergency planning commission (LEPC) or agencies, directly. While the maps and lists of the PSSCs and regulated sites are to be maintained in a confidential manner, these data are provided in **Appendix A. Figures** for internal review and planning uses only.

Table 11. Petersburg Town Of Water Shortage Response Capacity

Can the water utility isolate or divert contamination from the intake and groundwater supply?	Yes
Describe the results of an examination and analysis of the public water system's ability to isolate or divert contaminated waters from its surface water intake or groundwater supply:	The intake is submerged in the river. There are valves to isolate the intake from the intake structure.
Describe the results of an examination and analysis of the public water system's existing ability to switch to an alternative water source or intake in the event of contamination of its primary water source:	There are no current alternative water sources to provide full capacity.
Is the Utility able to close the water intake in the event of a spill?	Yes
How long can the Utility keep the intake closed?	3.13 days.
Describe the process to close the intake:	Upon notification, the intake structure has multiple valves that can be manually closed to isolate the intake.
Describe the treated water system's storage capacity of the water system:	The City has 2.531 Million gallons of treated water storage. This includes three (3) water storage tanks in the system and one (1) clearwell at the WTP.
Gallons of storage capacity (raw water)	0
Gallons of storage capacity (treated water)	0
Is the Utility a member of WVRWA Emergency Response Team?:	No
Is the Utility a member of WV-WARN?:	No
List other agreements to provide receive assistance in case of emergency:	N/A

11.2. OPERATION DURING LOSS OF POWER

Petersburg Town Of analyzed its ability to operate effectively during a loss of power. This involved ensuring a means to supply water through treatment, storage, and distribution without creating a public health emergency. Information regarding the utility's capacity for operation during power outages is summarized in **Table 12**.

Table 12. Generator Capacity

Can you connect to a generator at the intake/wellhead?:	Yes
Please provide a scenario that best describes your system:	Existing Generator at the WTP operates intake structure.
What do you have (KW)?	700.00
What do you need (KW)?	700.00
Can you connect to a generator at the treatment facility?:	Yes
Please provide a scenario that best describes your system:	Existing Generator at the WTP sized to operate the WTP.
What do you have (KW)?	700.00
What do you need (KW)?	700.00

Can you connect to a generator at the distribution system?:		No	
Please provide a scenario that best describes your system:			
What do you have (KW)?			
What do you need (KW)?			
Does the utility have fuel on hand for generator?:		Yes	
Hours:		72	
Gallons:		1,200	
Provide a list of suppliers and alternate suppliers that could provide fuel in the event of an emergency:		Supplier	Phone Number
Does the utility test the generator(s) periodically?:		Yes	
Does the utility routinely maintain the generator(s)?:		Yes	
If the Utility does not have generator or the ability to connect to a generator, describe plans to respond to power outages:		N/A	

11.3. FUTURE WATER SUPPLY NEEDS

When planning for potential emergencies and developing contingency plans, a utility needs to not only consider their current demands for treated water but also account for likely future needs. This could mean expanding current intake sources or developing new ones in the near future. This can be an expensive and time consuming process, and any water utility should take this into account when determining emergency preparedness. Petersburg Town Of has analyzed its ability to meet future water demands at current capacity, and this information is included in **Table 13.**

Table 13. Future Water Supply Needs for Petersburg Town Of

Is the Utility able to meet water demands with the current capacity for the next five years?	Yes
Explain how you plan to do so:	

11.4. WATER LOSS CALCULATION

In any public water system there is a certain percentage of the total treated water that does not reach the customer. Some of this water is used in treatment plant processes such as back washing filters or flushing piping, but there is usually at least a small percentage that goes unaccounted for. To measure and report on this unaccounted for water, a public utility must use the method described in the Public Service Commission's rule, Rules for the Government of Water Utilities, 150CSR7, section 5.6. The rule defines unaccounted for water as the volume of water introduced into the distribution system less all metered usage and all known non-metered usage which can be estimated with reasonable accuracy.

To further clarify, metered usages are most often those that are distributed to customers. Non-metered usages that are being estimated include usage by fire departments for fires or training, un-metered bulk sells, flushing to maintain the distribution system, and water used for backwashing filters and cleaning settling basins. By totaling the

known metered and non-metered uses the utility calculates unaccounted for water. Note: To complete annual reports submitted to the PSC, utilities typically account for known water main breaks by estimating the amount of water lost. However, for the purposes of the source water protection plan, any water lost due to leaks, even if the system is aware of how much water is lost at a main break, is not considered a use. Water lost through leaks and main breaks cannot be controlled during a water shortages or other emergencies and should be included in the calculation of percentage of water loss for purposes of the source water protection plan. The data in **Table 13** is taken from the most recently submitted Petersburg Town Of PSC Annual Report.

Table 14. Water Loss Information

Water pumped - Total Gallons:		331,354,000
*Water purchased - Total Gallons:		0
Total gallons of water pumped and purchased:		331,354,000
Total gallons of water loss accounted for except main leaks:	Mains, plaint, filters, flushing, etc - Total Gallons:	2,480,000
	Fire department - Total Gallons:	1,150,000
	Back washing - Total Gallons:	12,808,000
	Blowing settling basins - Total Gallons:	840,000
Total Accounted for Water Loss		17,278,000
Unaccounted for lost water - Total Gallons:		63,008,000
Water sold - Gallons:		239,920,000
Water Lost From Main Leaks:		11,148,000
Total Gallons of Unaccounted for Lost Water and Water Lost from Main Leaks:		74,156,000
Total percent unaccounted for water		22
Describe the measures to correct water loss greater than 15%:	Water loss is above 15% due to two major leaks in the system that drained out the tanks.	

11.5. EARLY WARNING MONITORING SYSTEM

Public water utilities are required to provide an examination of the technical and economic feasibility of implementing an early warning monitoring system. Implementing an early warning monitoring system may be approached in different ways depending upon the water utility's resources and threats to the source water. A utility may install a continuous monitoring system that will provide real time information regarding water quality conditions. This would require utilities to analyze the data to establish what condition is indicative of a contamination event. Continuous monitoring will provide results for a predetermined set of parameters. The more parameters that are being monitored, the more sophisticated the monitoring equipment will need to be. When establishing a continuous monitoring system, the utility should consider the logistics of placing and maintaining the equipment, and receiving output data from the equipment.

Alternately, or in addition, a utility may also pull periodic grab samples on a regular basis, or in case of a reported incident. The grab samples may be analyzed for specific contaminants. A utility should examine their PSSCs to determine what chemical contaminants could pose a threat to the water source. If possible, the utility should plan in advance how those contaminants will be detected. Consideration should be given to where samples will be

collected, the preservations and hold times for samples, available laboratories to analyze samples, and costs associated with the sampling event. Regardless of the type of monitoring (continuous or grab), utilities should collect samples for their source throughout the year to better understand the baseline water quality conditions and natural seasonal fluctuations. Establishing a baseline will help determine if changes in the water quality are indicative of a contamination event and inform the needed response.

Every utility should establish a system or process for receiving or detecting chemical threats with sufficient time to respond to protect the treatment facility and public health. All approaches to receiving and responding to an early warning should incorporate communication with facility owners and operators that pose a threat to the water quality, with state and local emergency response agencies, with surrounding water utilities, and with the public. Communication plays an important role in knowing how to interpret data and how to respond.

Petersburg Town Of has analyzed its ability to monitor for and detect potential contaminants that could impact its source water. Information regarding this utility's early warning monitoring system capabilities is provided in **Table 15** and in **Appendix B.**

Table 15. Early Warning Monitoring System Capabilities

Does your system currently receive spill notifications from a state agency, neighboring water system, local emergency responders, or other facilities?	Yes	
From whom do you receive notices?	DEP notification emails	
Are you aware of any facilities, land uses, or critical areas within your protection areas where chemical contaminants could be released or spilled?	Yes	
Are you prepared to detect potential contaminants if notified of a spill?	No	
List laboratories (and contact information) on whom you would rely to analyze water samples in case of a reported spill.	Laboratories	
	Name	Phone Number
	REIC	(304)241-5861
	WVDHHR	(304)725-9453
Do you have an understanding of baseline or normal conditions for your source water uality that accounts for seasonal fluctuations?	Yes	
Does your utility (aside from turbidity monitoring) currently monitor your raw water through continuous monitoring at the surface water intake or groundwater source to detect changes in water quality that could indicate contamination?	Yes	
Does your utility collect periodic grab samples (ex. possess reserved sample bottles, on-call laboratory services, and trained personnel) in response to a spill notification or to investigate changes in water quality that could indicate contamination?	Yes	
Please explain:	Both – periodic grab samples as required and also turbidity every fifteen minutes. Other tests include chlorine, fluoride, pH, Alkalinity, Hardness, and temperature.	

Provide or estimate the capital and O&M costs for your current or proposed early warning system or upgraded system.	Capital Cost:	81,015
	O&M Cost:	13,003
Do you serve more than 100,000 customers?		No
Does your system currently receive spill notifications from a state agency, neighboring water system, local emergency responders, or other facilities?		Yes
Are you prepared to detect potential contaminants if notified of a spill?		No
Please describe the methods you use to monbitor at the same technical levels utilized by ORSANCO:		

12.0 SINGLE SOURCE FEASIBILITY STUDY

If a public water utility's water supply plant is served by a single–source intake to a surface water source of supply or a surface water influenced source of supply, the submitted source water protection plan must also include an examination and analysis of the technical and economic feasibility of alternative sources of water to provide continued safe and reliable public water service in the event that its primary source of supply is detrimentally affected by contamination, release, spill event or other reason. These alternatives may include a secondary intake, two days of additional raw or treated water storage, an interconnection with neighboring systems, or other options identified on a local level. Note: a suitable secondary intake would draw water supplies from a substantially different location or water source.

To accomplish this requirement, utilities should examine all existing or possible alternatives and rank them by their technical, economic, and environmental feasibility. To have a consistent and complete method for ranking alternatives, WVBPH has developed a feasibility study guide. This guide provides several criteria to consider for each category, organized in a Feasibility Study Matrix. By completing the Feasibility Study Matrix, utilities will demonstrate the process used to examine the feasibility of each alternative and document scores that compare the alternatives. The Feasibility Study matrix and summary of the results are presented in an alternatives feasibility study attached as **Appendix D**.

13.0 COMMUNICATION PLAN

Petersburg Town Of has also developed a Communication Plan that documents the manner in which the public water utility, working in concert with state and local emergency response agencies, shall notify the local health agencies and the public of the initial spill or contamination event and provide updated information related to any contamination or impairment of the system's drinking water supply. The initial notification to the public will occur in any event no later than thirty minutes after the public water system becomes aware of the spill, release, or potential contamination of the public water system. A copy of the source water protection plan and the Communication Plan has been provided to the local fire department. Petersburg Town Of will update the Communication Plan as needed to ensure contact information is up to date.

Procedures should be in place to effectively react to the kinds of catastrophic spills that can reasonably be predicted at the source location or within the SWPA. The chain-of-command, notification procedures and response actions should be known by all water system employees.

The WVBPH has developed a recommended communication plan template that provides a tiered incident communication process to provide a universal system of alert levels to utilities and water system managers. The comprehensive Communication Plan for Petersburg Town Of is attached as **Appendix C** for internal review and planning purposes only.

The West Virginia Department of Environmental Protection is capable of providing expertise and assistance related to prevention, containment, and clean-up of chemical spills. The West Virginia Department of Environmental Protection Emergency Response 24-hour Phone is 1-800-642-3074. The West Virginia Department of Environmental Protection also operates an upstream distance estimator that can be used to determine the distance from a spill site to the closest public water supply surface water intake.

14.0 EMERGENCY RESPONSE

A public water utility must be prepared for any number of emergency scenarios and events that would require immediate response. It is imperative that information about key contacts, emergency services, and downstream water systems be posted and readily available in the event of an emergency. Elements of this source water protection plan, such as the contingency planning and communication plan, may contain similar information to the utility's emergency response plan. However, the emergency response plan is to be kept confidential and is not included in this source water protection plan. An Emergency Short Form is included in **Appendix C** to support the Communicate Plan by providing quick access to important information about emergency response and are to be used for internal review and planning purposes only.

15.0 CONCLUSION

This report represents a detailed explanation of the required elements of Petersburg Town Of's Source Water Protection Plan. Any supporting documentation or other materials that the utility considers relevant to their plan can be found in **Appendix E**.

This source water protection plan is intended to help prepare community public water systems all over West Virginia to properly handle any emergencies that might compromise the quality of the system's source water supply. It is imperative that this plan is updated as often as necessary to reflect the changing circumstances within the water system. The protection team should continue to meet regularly and continue to engage the public whenever possible. Communities taking local responsibility for the quality of their source water is the most effective way to prevent contamination and protect a water system against contaminated drinking water. Community cooperation, sufficient preparation, and accurate monitoring are all critical components of this source water protection plan, and a multi-faceted approach is the only way to ensure that a system is as protected as possible against source water degradation.

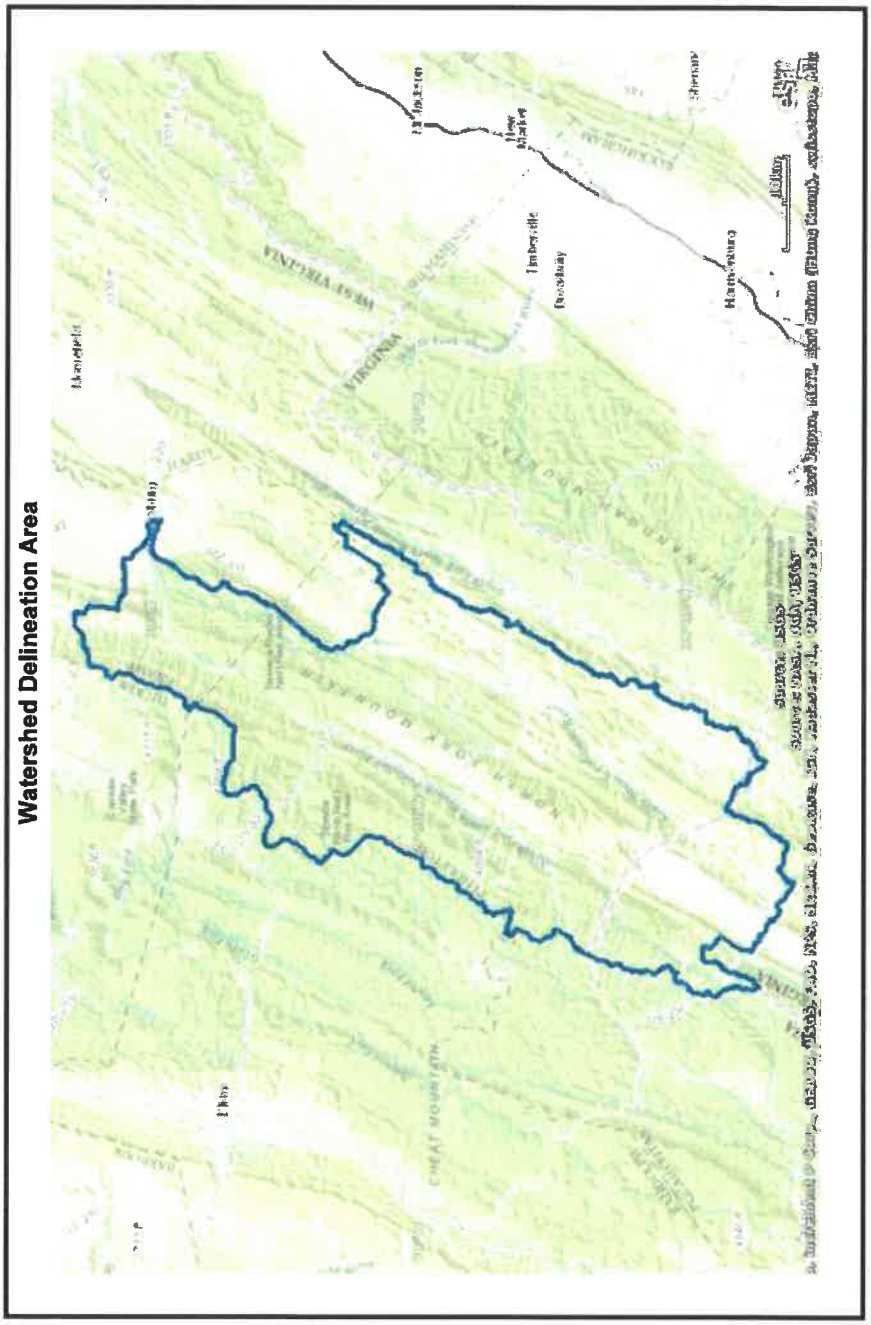
APPENDIX A. FIGURES AND TABLES

Water Source / Delineation

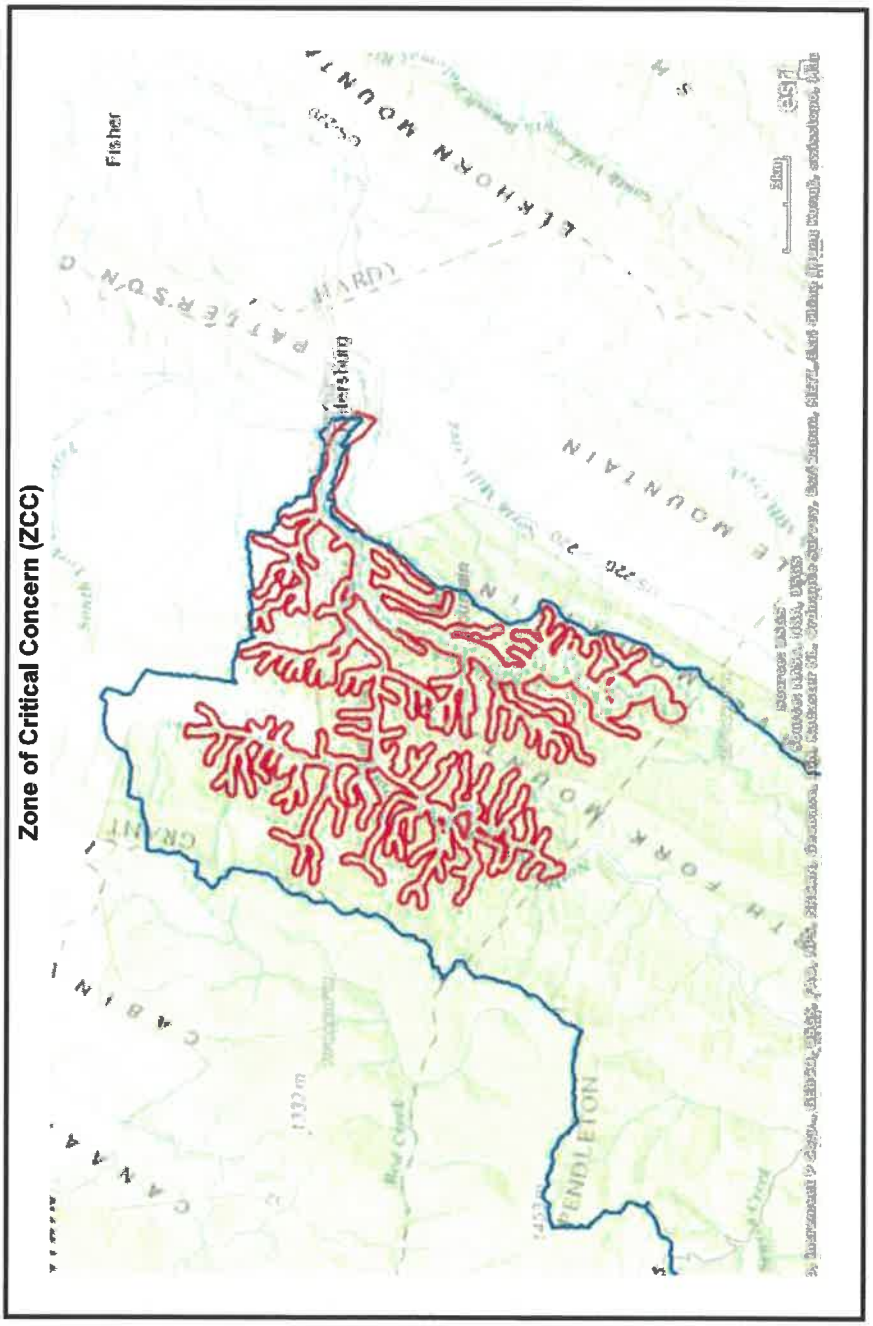
Surface Water Sources

Intake: South Branch Potomac River

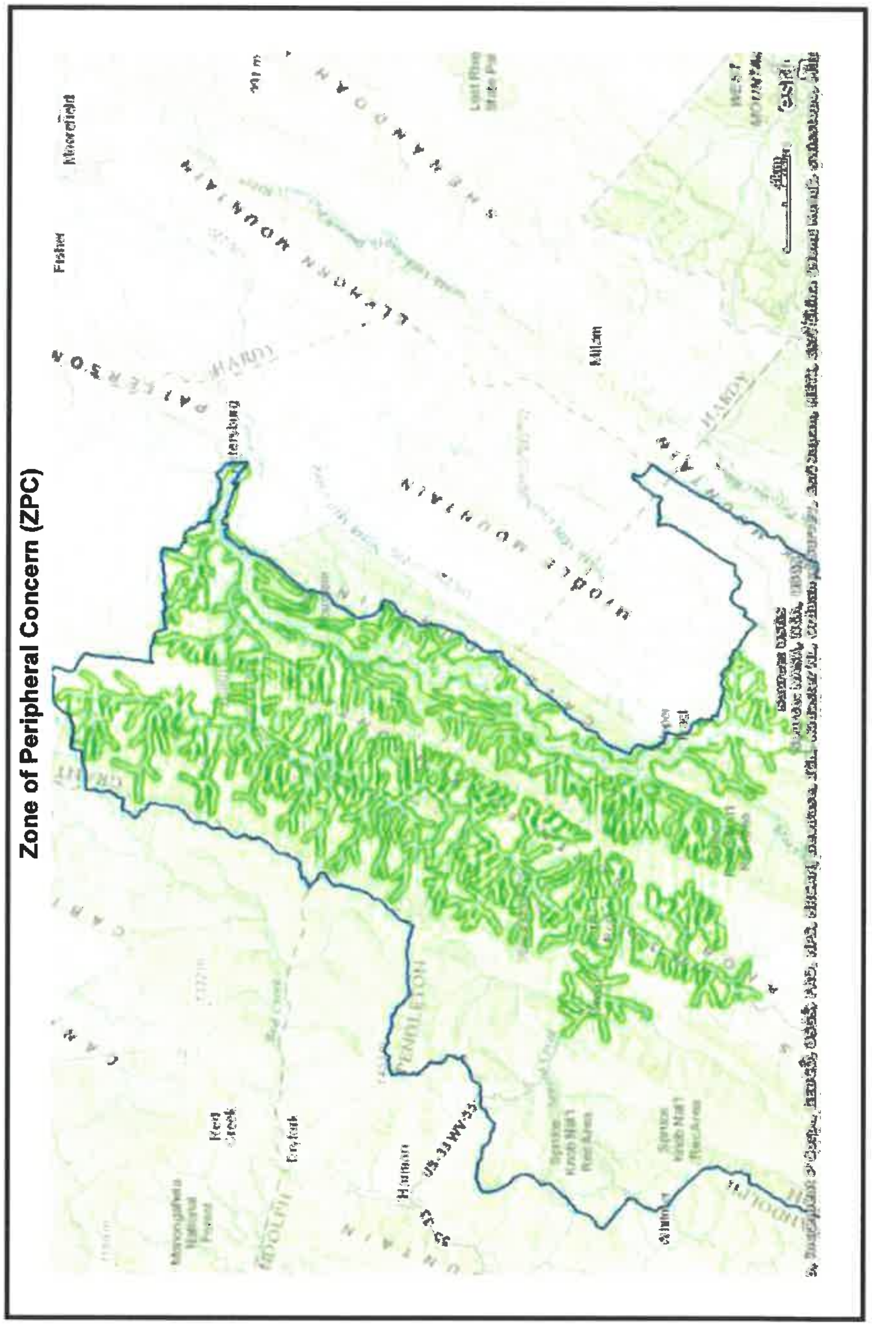
Map of watershed delineation area



Map of zone of critical Concerns

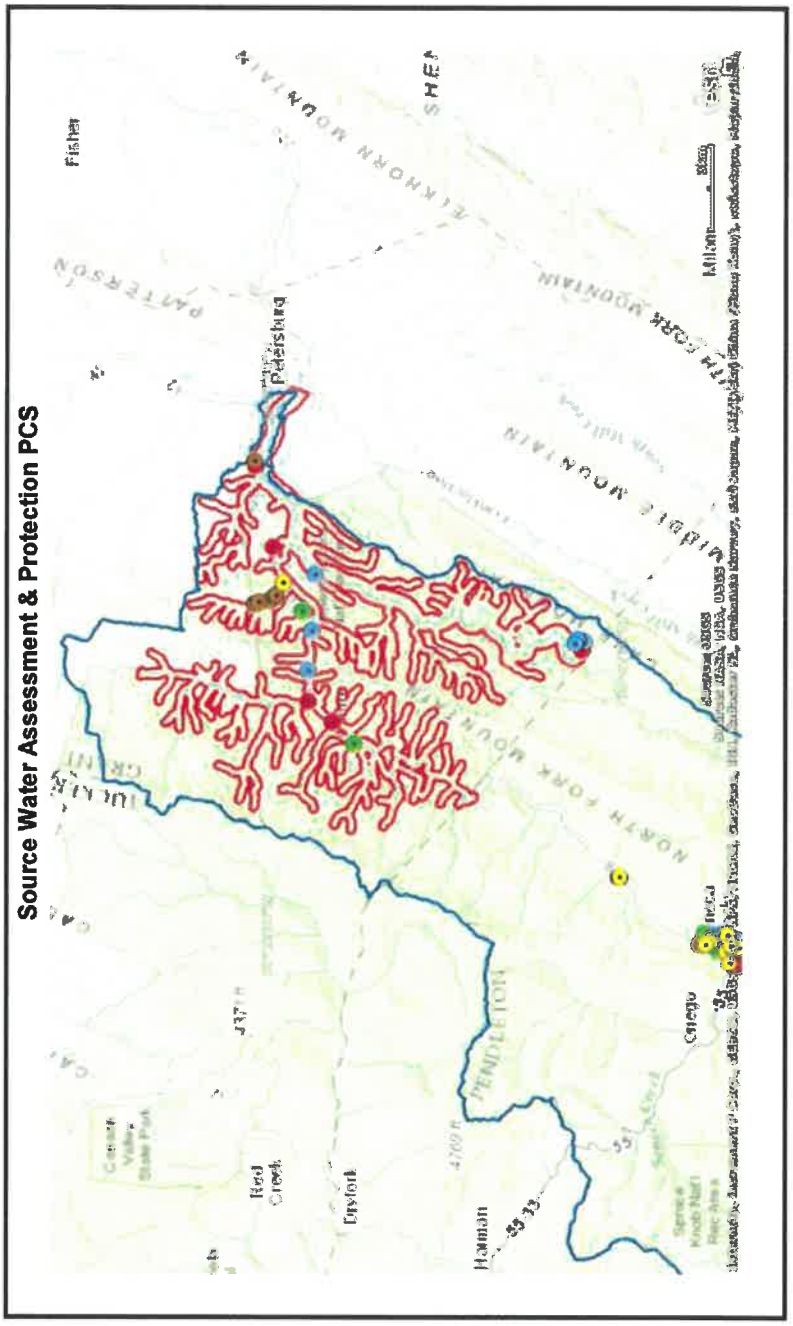


Map of zone of peripheral Concerns

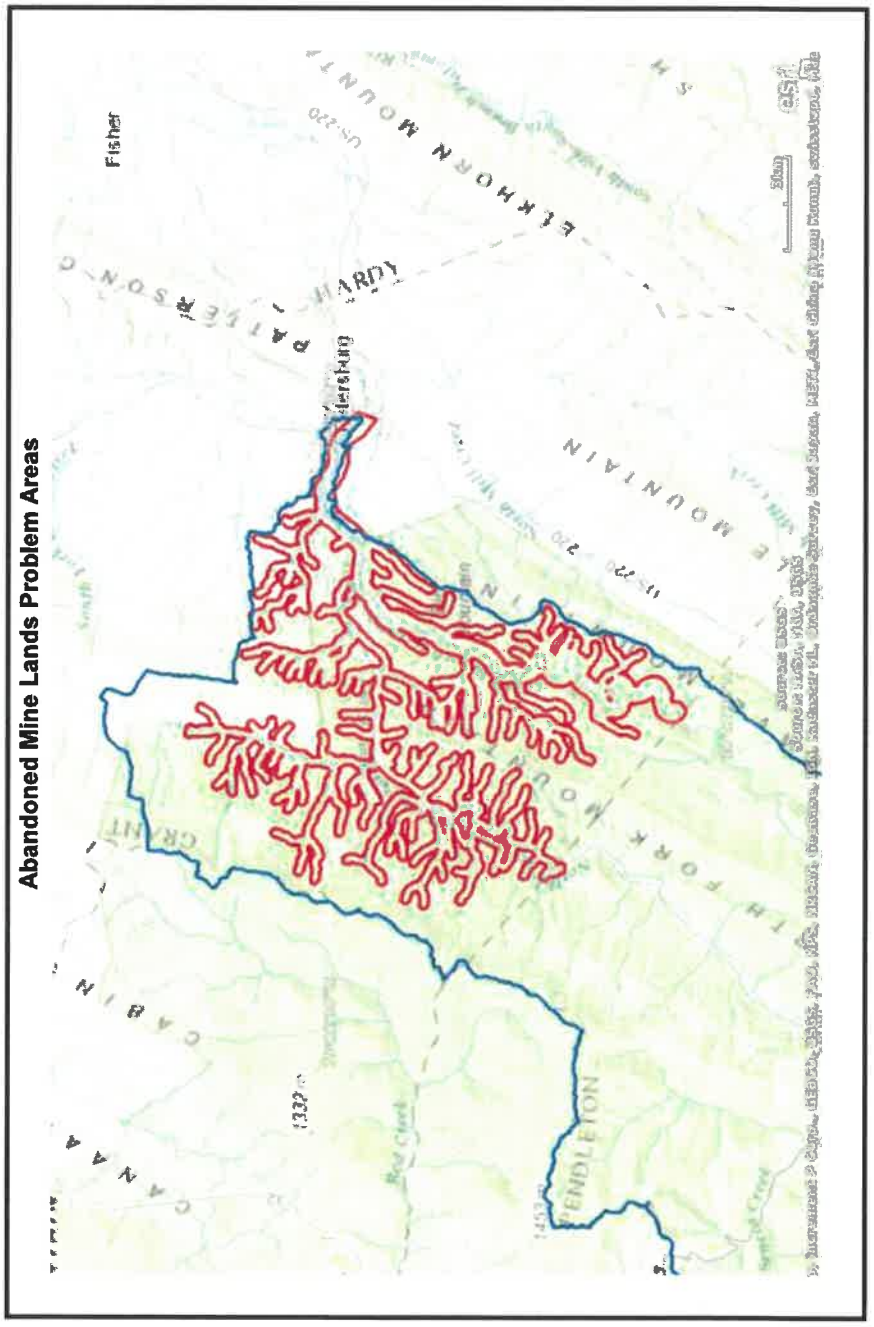


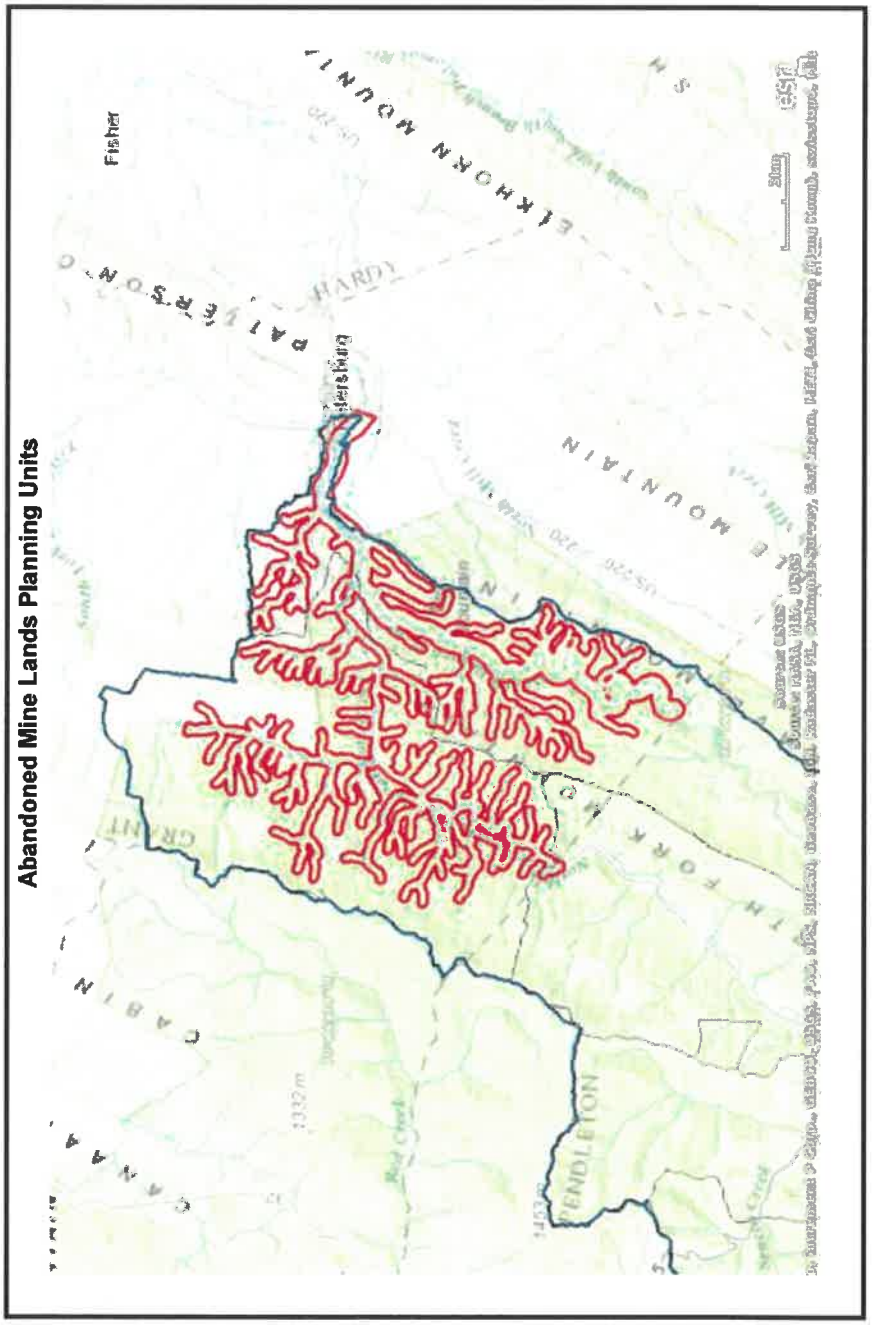
PSSC Maps

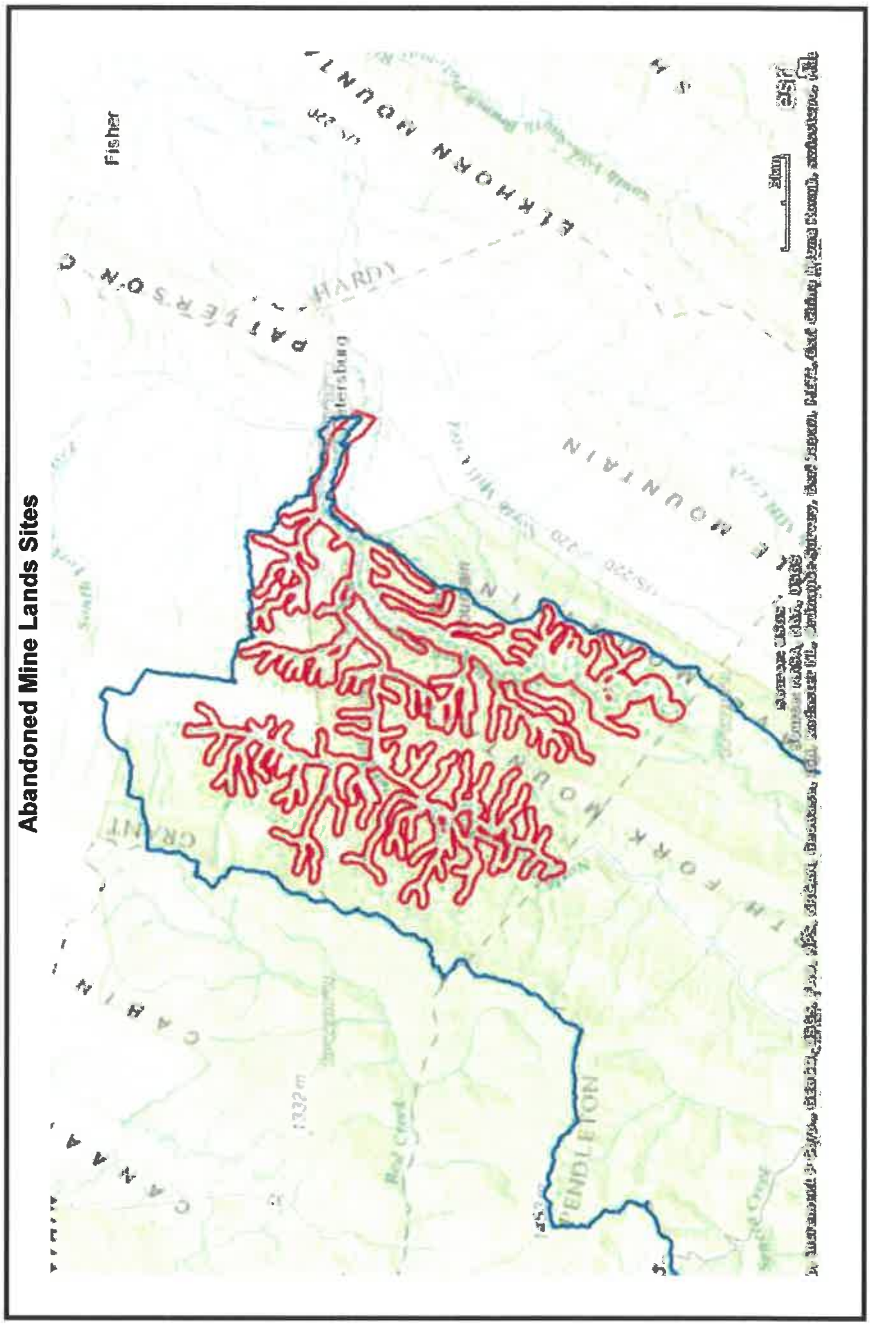
Local and Regional PSSC Map

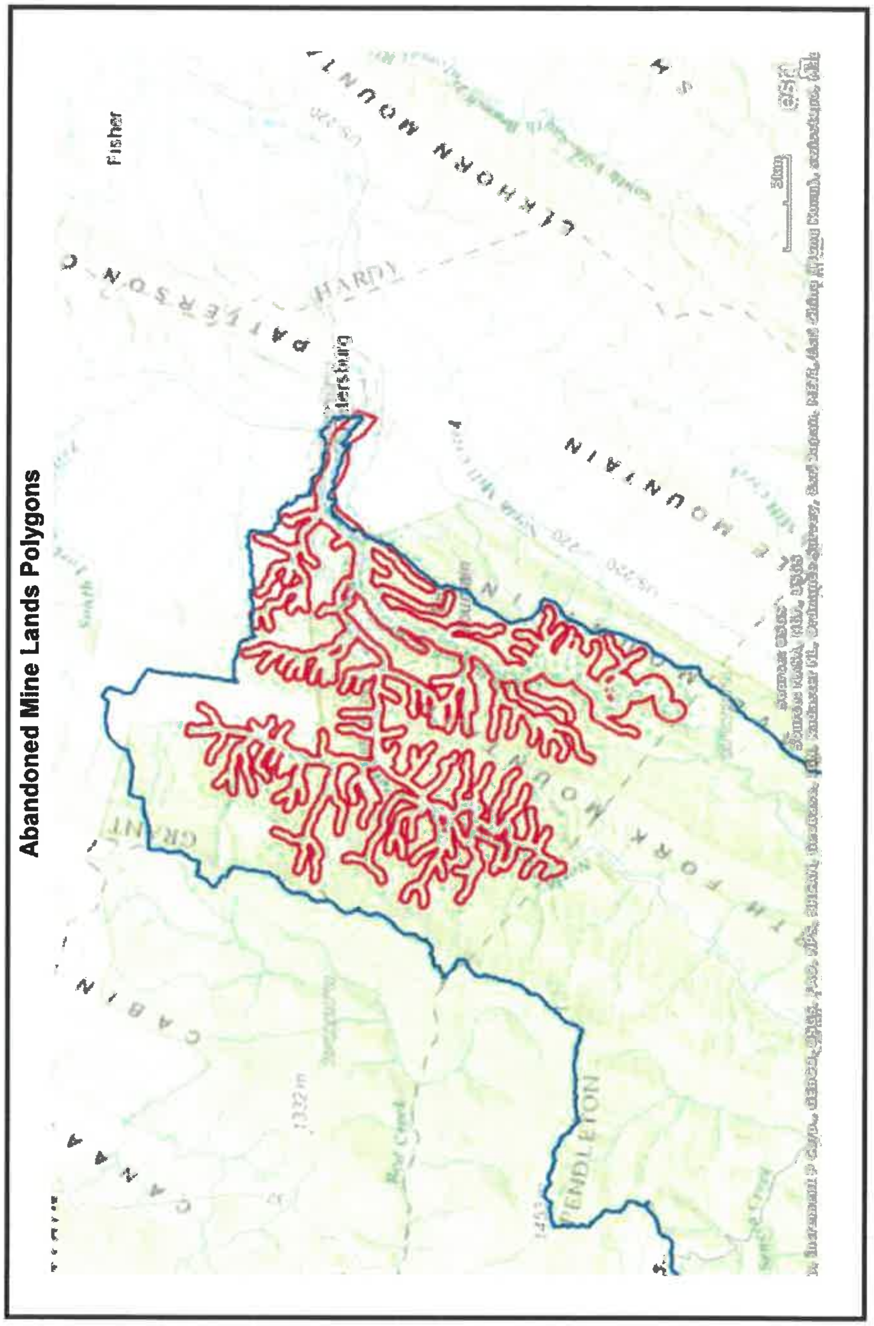


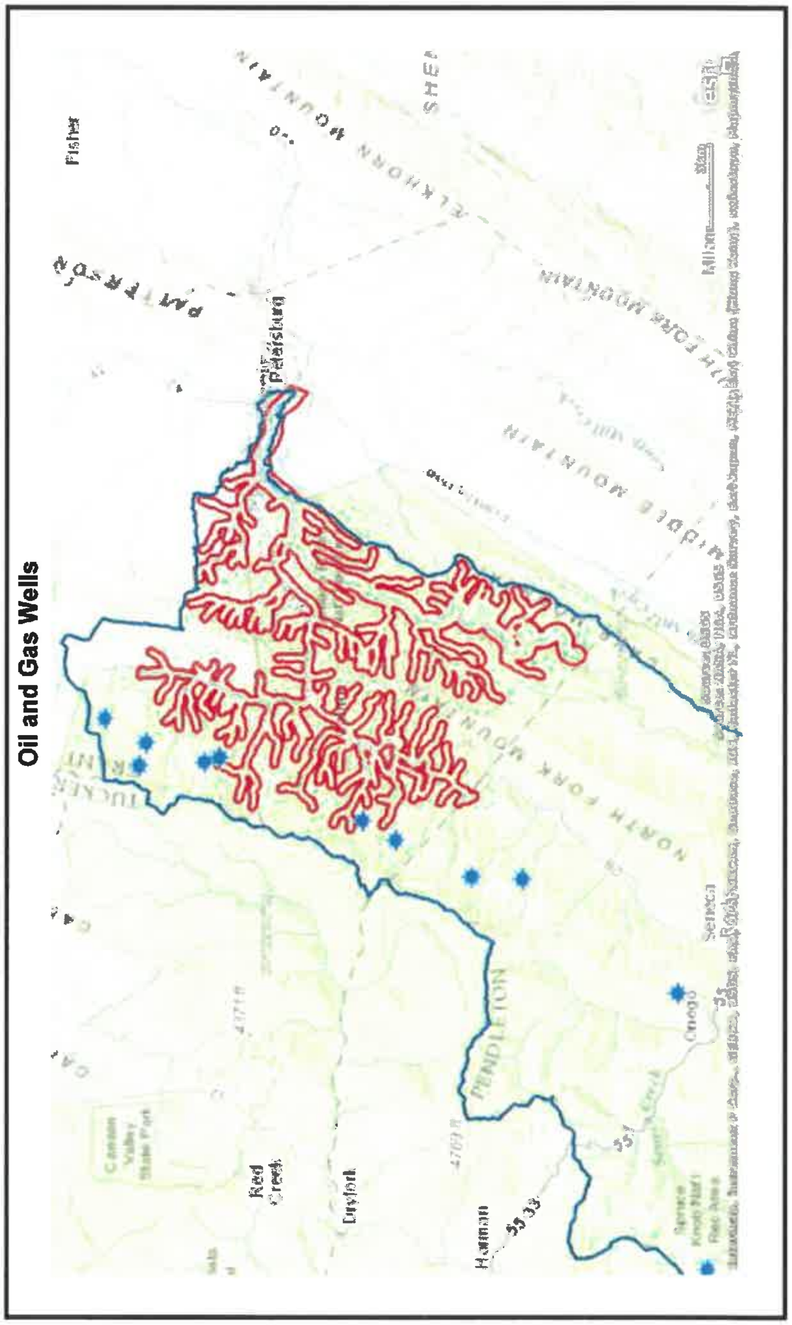
Regulated PSSC Map

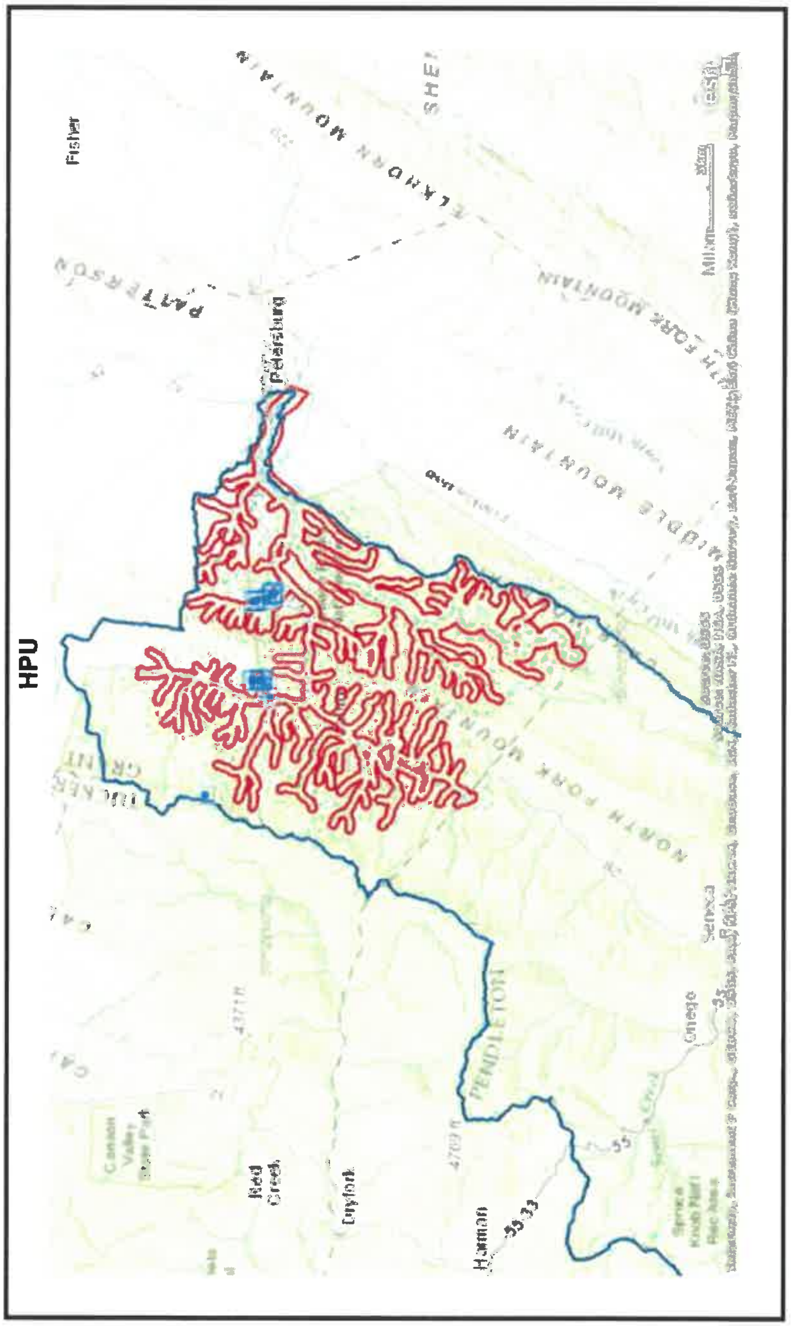



Abandoned Mine Lands Planning Units
Fisher
HARDY
PENDLETON
Petersburg

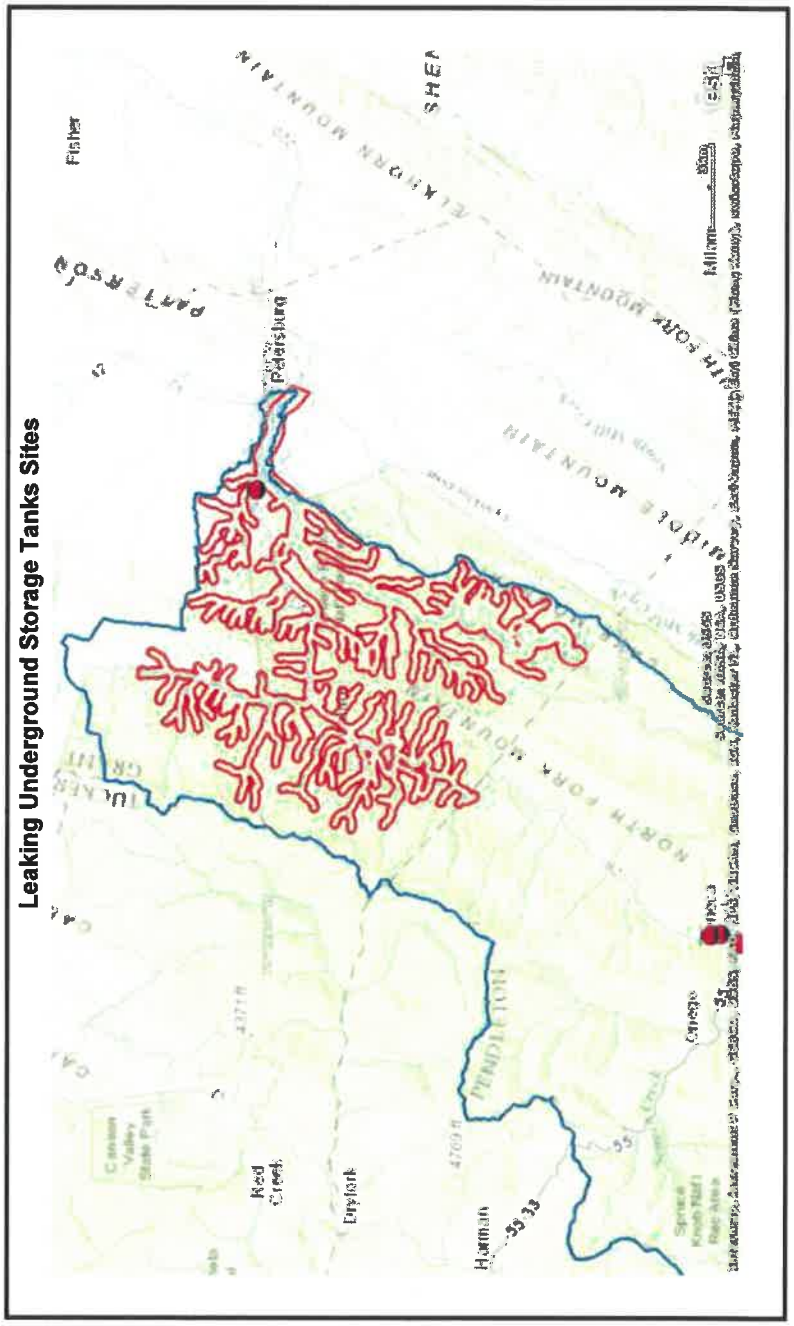

Abandoned Mine Lands Sites
Fisher
HARDY
GRANT
PENDLETON

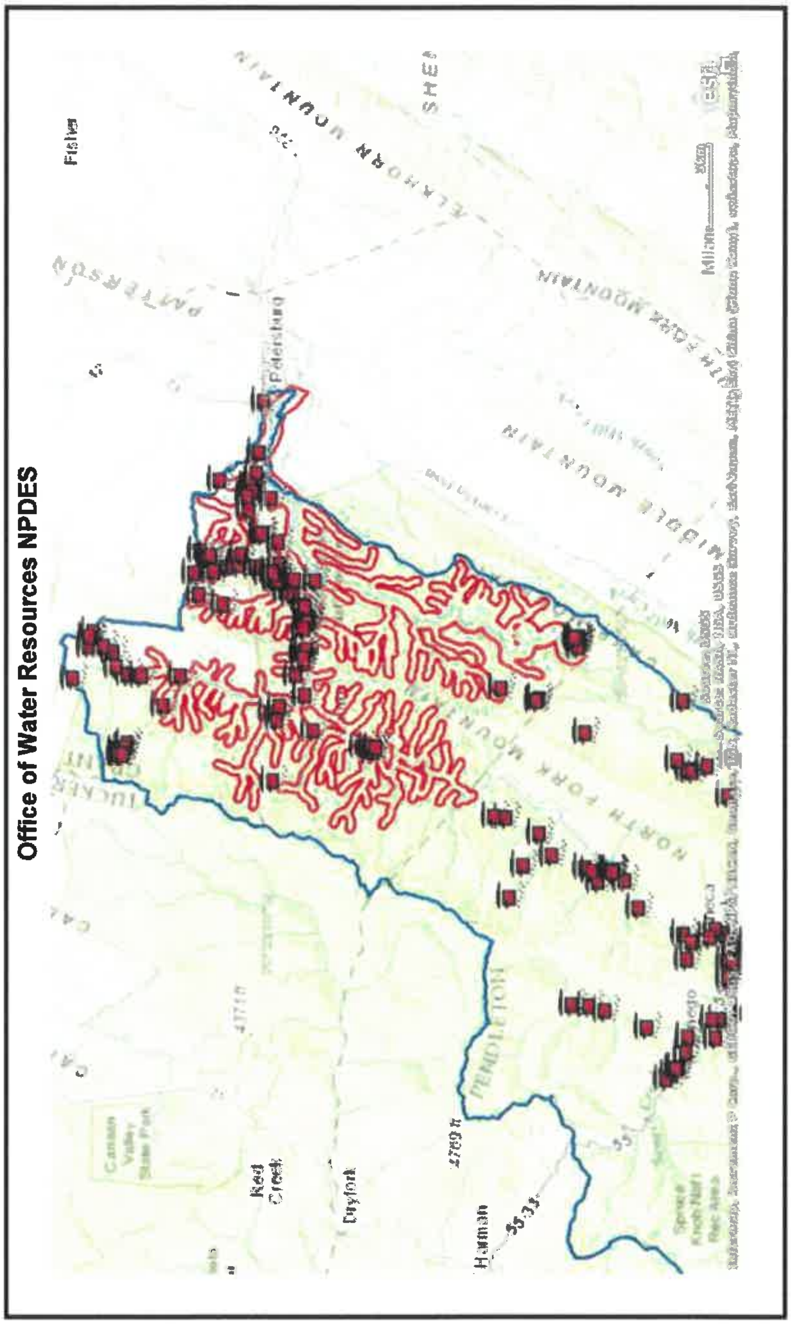

Abandoned Mine Lands Polygons
Fisher
HARDY
GRANT
PENDLETON
Petersburg

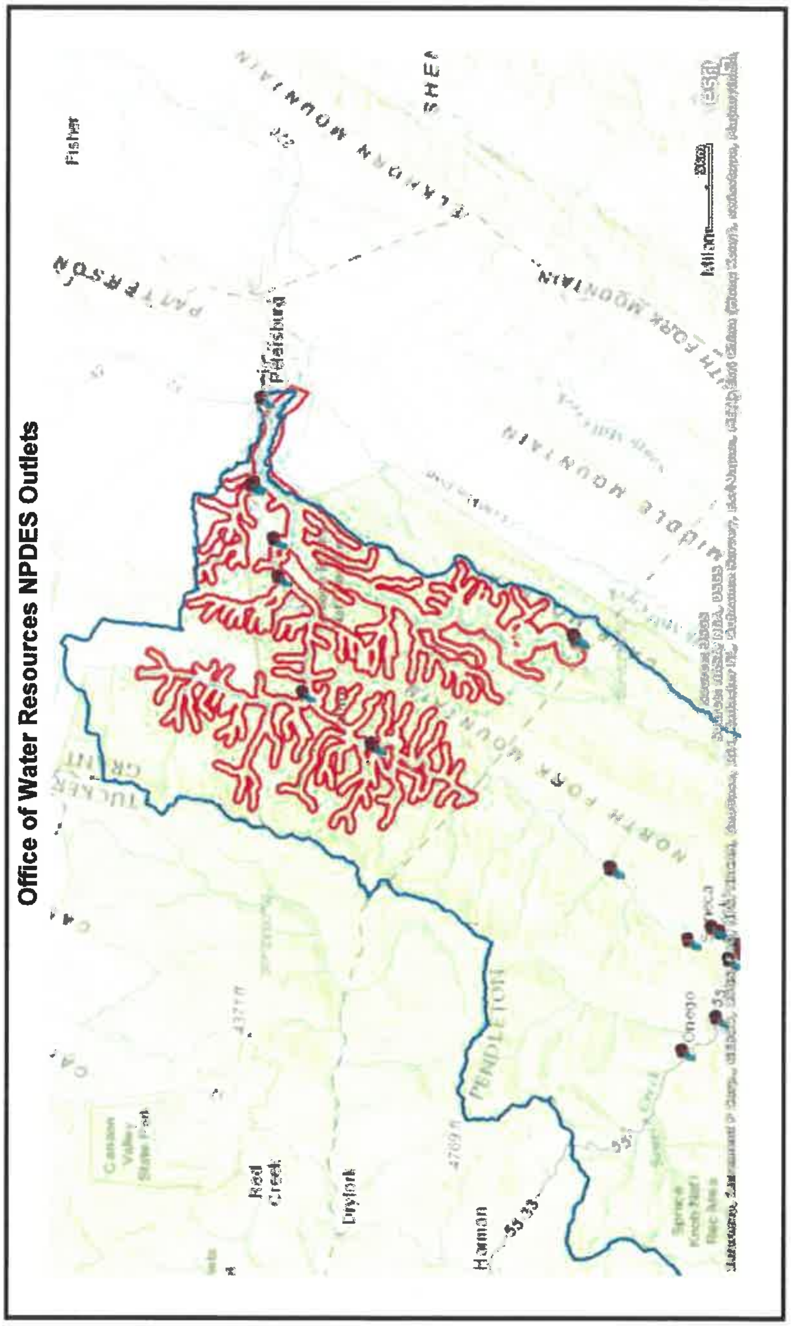

Oil and Gas Wells
Fisher
Petersburg
PATTERSON
ELKHORN MOUNTAIN
NORTH FORK MOUNTAIN
TUCKER
PENDLETON
Red Creek
Dryfork
Harman
Seneca
Onego
Canaan Valley State Park

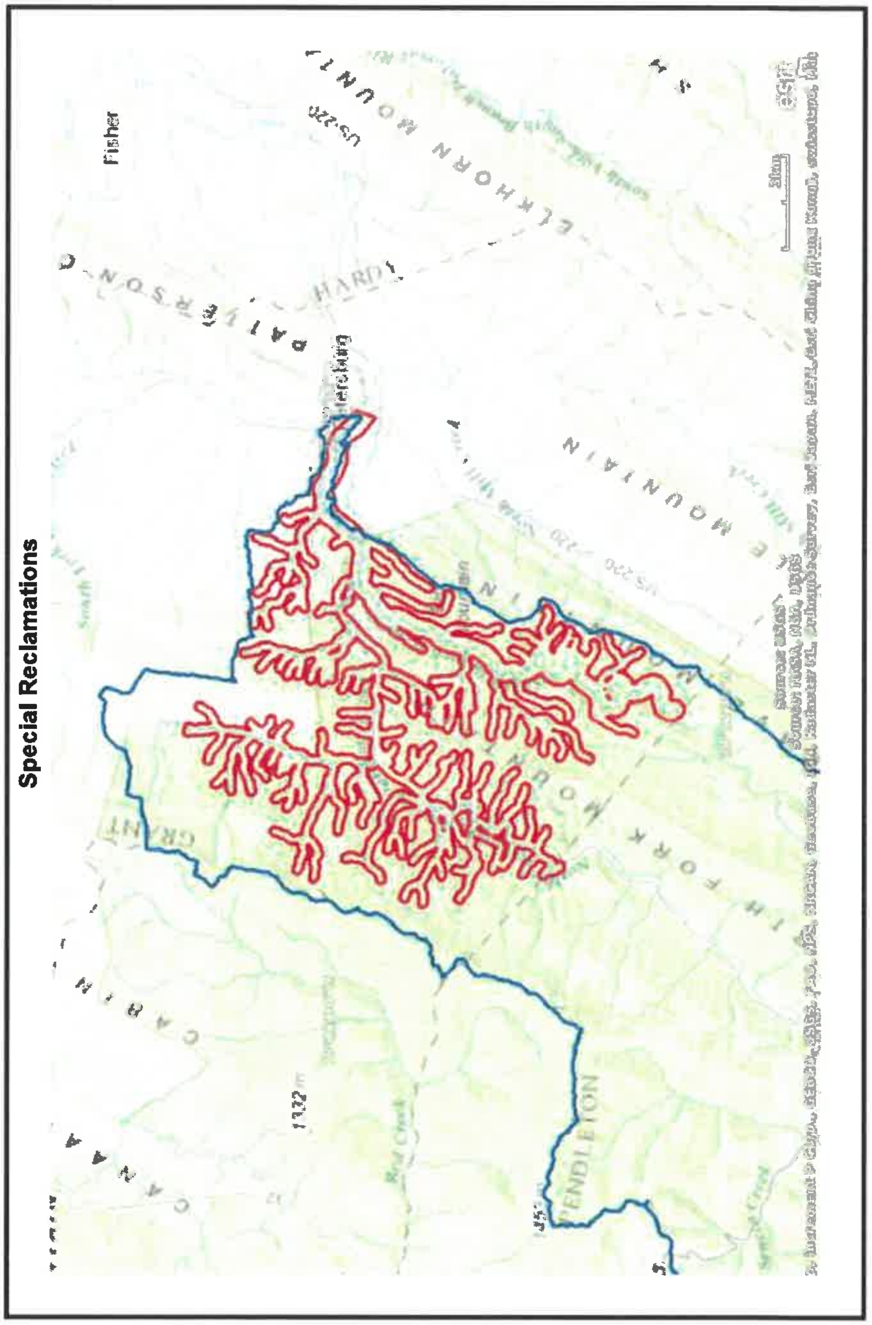

HPU
Fisher
Petersburg
NORTH FORK MOUNTAIN
PENDLETON
Red Creek
Dryfork
Harman

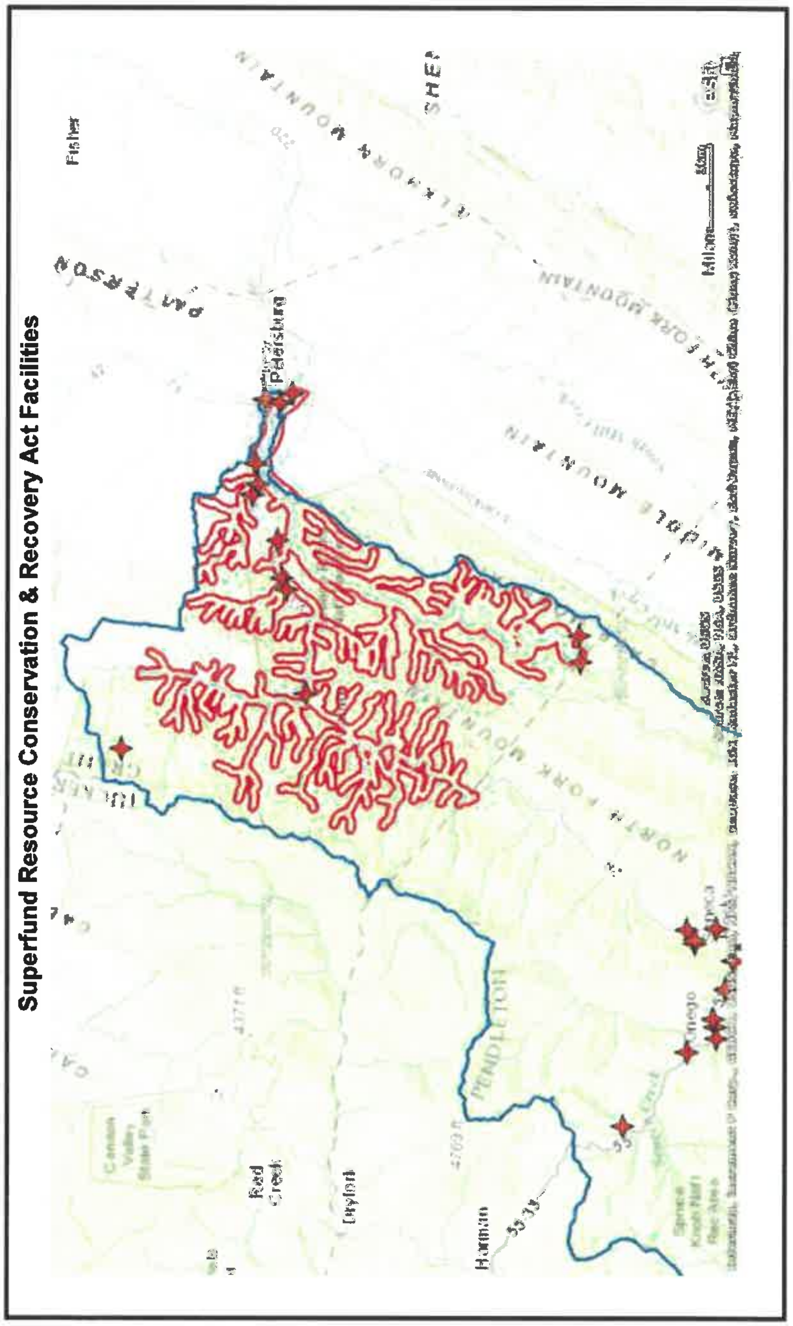
Leaking Underground Storage Tanks Sites

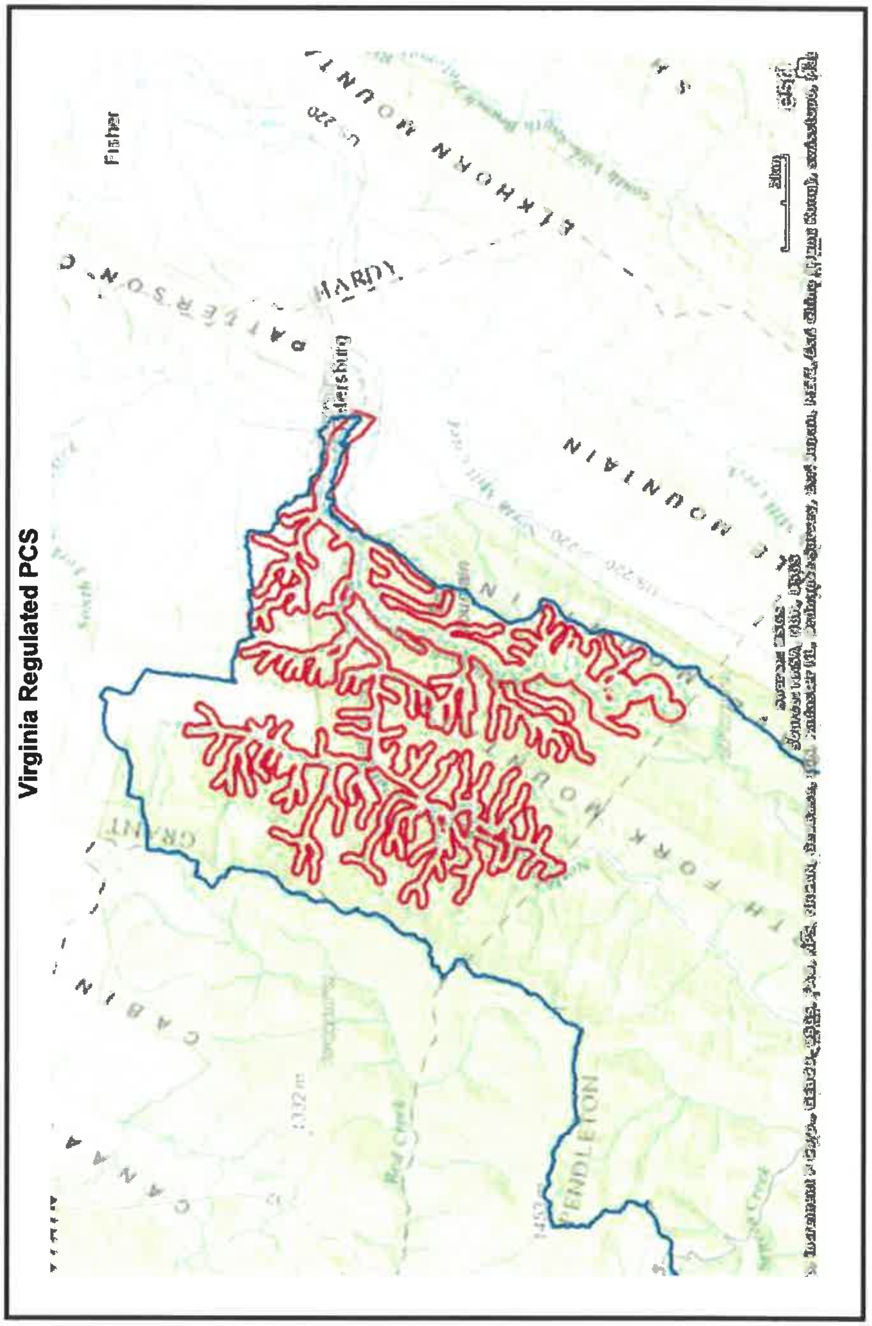



Office of Water Resources NPDES
Petersburg
Red Creek
Harman
PENDLETON
NORTH FORK MOUNTAIN

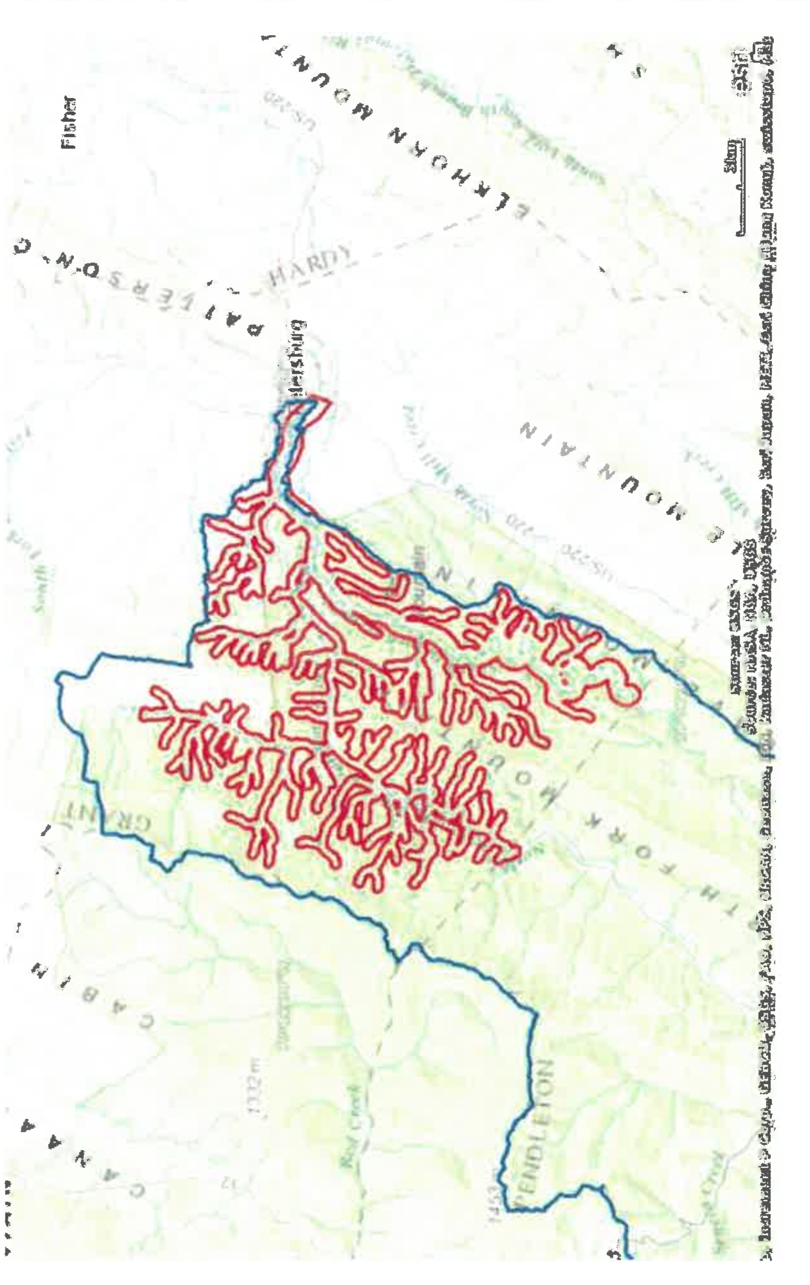

Office of Water Resources NPDES Outlets
Petersburg
Fisher
Red Creek
Dryfork
Harman
Onego
PENDLETON


Special Reclamations
Fisher
HARDY
GRANT
PENDLETON
Red Creek


Superfund Resource Conservation & Recovery Act Facilities
Petersburg
Fisher
Red Creek
Dryfork
Harman
Onego
PENDLETON
Miles


Virginia Regulated PCS
Fisher
HARDY
GRANT
PENDLETON
Red Creek
5km

Voluntary Remediation Program



PSSC Lists

Local and Regional PSSC List

SOURCE WATER ASSESSMENT & PROTECTION PCS

OBJECTID	x	y	EHS_GIS_SQLSDE_GISTA_SWAP_PCS_SITE_NAME	EHS_GIS_SQLSDE_GISTA_SWAP_PCS_SITEDESCRIPTION
1	640737.4466	4300398.334	Farm Machinery Areas	Farm machinery areas
2	631323.6635	4281527.973	Red Lick Farms	Greenhouses/Nurseries
3	631428.2206	4275918.626	Green Houses	Greenhouses/Nurseries
4	652051.0639	4281952.32	Pasture	Pasture*
5	640837.5027	4300142.007	Pasture	Pasture*
6	640538.661	4299657.018	Pasture	Pasture*
7	635727.3334	4289445.616	FARM	Pasture*
8	640081.9116	4297613.754	Pasture	Pasture*
9	633814.7536	4286079.31	Pasture	Pasture*
10	624966.2886	4282263.311	Pasture	Pasture*
11	645637.0441	4271817.187	Pasture	Pasture*
12	645790.505	4270473.941	Pasture	Pasture*
13	641863.1206	4270154.661	Pasture	Pasture*
14	639703.3795	4297336.9	CATTLE FARM	Pasture*
15	640647.4591	4299890.32	CATTLE FARM	Pasture*
16	639692.267	4291648.451	CATTLE FARM	Pasture*
17	636755.8689	4269234.619	CAVE COUNTRY STORE	Pasture*
18	634144.983	4286594.118	CATTLE FARM	Pasture*
19	637721.5145	4293246.631	FARM	Pasture*
20	640324.7996	4298424.104	Pasture	Pasture*
21	636024.4438	4290123.364	CATTLE FARM	Pasture*
22	628717.3292	4278128.356	CATTLE FARM	Pasture*
23	641350.4199	4300965.737	CATTLE FARM	Pasture*
24	625274.3208	4282550.762	MOUNTAIN INSTITUTE	Pasture*
25	636641.2035	4268930.329	FARM	Pasture*
26	640826.1498	4299612.941	ANIMAL FARM	Pasture*
27	640305.4695	4299925.767	SHEEP PASTURE	Pasture*
28	649780.3894	4283605.968	Pasture	Pasture*
29	636784.1996	4269267.505	CAVE COUNTRY STORE	Pasture*
30	639704.1167	4296940.336	CATTLE FARM	Pasture*
31	635800.3392	4289818.015	FARM	Pasture*
32	633737.055	4286299.578	Animal Feedlot	Animal Feedlots
33	640926.2837	4300378.598	Animal Feedlot	Animal Feedlots
34	640008.3414	4296702.605	WOOD-CUTTING OPERATION	Silviculture (logging)
35	649536.5112	4283637.913	Sink Hole	Other
36	652449.2539	4281668.503	Confined Animal Feeding Operations	Confined Animal Feeding Operations
37	653423.9167	4285651.533	Confined Animal Feeding Operations	Confined Animal Feeding Operations
38	633449.8369	4285668.349	Confined Animal Feeding Operations	Confined Animal Feeding Operations
39	644639.3954	4269041.009	Jim and Pat McClung Farm with one barn on Capito Hill Road	Confined Animal Feeding Operations
40	646536.5828	4270967.128	Rocky Pine Farms, chick production facility	Confined Animal Feeding Operations
41	648546.91	4314793.189	Wolfords Poultry, Perdue Grower, 2 barns	Confined Animal Feeding Operations
42	653729.5205	4316901.83	Dale and Mary Alice Ours poultry farm, Perdue grower	Confined Animal Feeding Operations
43	628449.075	4277972.175	FARM	Confined Animal Feeding Operations

44	633761.1	4286866.728	CHICKEN PEN	Confined Animal Feeding Operations
45	640416.2516	4299892.793	YOKUMS' PRINCESS SNOWBIRD #2	Confined Animal Feeding Operations
46	641155.2881	4299610.19	SENECA SHADOWS CAMP/SENECA ROCKS	Crops, corn, soybean, wheat
47	641043.9254	4299844.244	CORNFIELD	Crops, corn, soybean, wheat
48	639635.3603	4297263.645	CORNFIELD	Crops, corn, soybean, wheat
49	637728.4557	4293463.264	FARM	Crops: other
50	652170.095	4281652.625	Crops: Other	Crops: other
51	639673.3159	4297868.426	Crops: Other	Crops: other
52	654263.0448	4318070.239	Fairfax Stone Bean's Quarry with above ground diesel tanks, containment basin filled with water and growing cattails.	Above Ground Storage Tanks
53	636116.1185	4290526.626	NORTH FORK PRIMARY CARE CLINIC	Construction areas
54	635912.2897	4289473.628	BRIDGE ACROSS NORTH FORK RIVER Construction areas	Construction areas
55	650193.2369	4316632.058	New construction at Smoke Hole Caverns tourist trap. Existing parking lot and motel.	Construction areas
56	639507.9955	4297138.837	DEMOLITION AREA	Demolition areas
57	656235.8034	4318133.293	Dettinburn Trucking, Inc service and parts	Fleet/truck/bus terminals
58	649402.5224	4315664.591	Best gas station with 3 pumps open for business	Gas Stations
59	635833.0138	4289728.102	Raines Store (closed - up for sale)	Gas Stations
60	635978.382	4289864.461	River Mart	Gas Stations
61	631027	4281221.608	Rock Gable Sunoco	Gas Stations
62	652026.6314	4281558.522	Sunoco Gas Station	Gas Stations
63	630979.5553	4281213.658	Cheveron Gas Station	Gas Stations
64	639738.5593	4297683.798	Gas Stations	Gas Stations
65	652958.9427	4283023.571	Fisher Ridge Golf Course	Golf courses
66	640920.6388	4299618.194	YOKUMS' GENERAL STORE	Historic gas stations
67	641059.4192	4300748.563	YOKUMS' MOTEL	Laundromats
68	640898.1487	4299626.098	YOKUMS' GENERAL STORE	Laundromats
69	640748.2618	4299819.495	YOKUMS' PRINCESS SNOWBIRD #1	Laundromats
70	631054.615	4281309.888	Carls Garage	Auto repair shops
71	631047.5432	4281327.177	Carls Garage	Auto repair shops
72	633836.9983	4286603.077	Auto Repair Shop	Auto repair shops
73	640089.2037	4299758.866	MARITZ TIRE	Auto repair shops
74	633827.6121	4286587.711	DIESEL TRUCK GARAGE	Auto repair shops
75	640844.7483	4299563.094	SENECA MOTOR COMPANY	Auto repair shops
76	633816.2586	4286521.227	TED DAVIS AUTO SALES	Auto repair shops
77	635929.2791	4289732.944	CLINTON HEDRICK COMMUNITY BUILDING	Medical/dental offices/clinics
78	641021.7208	4299406.048	Parking Lots	Parking lots/malls
79	652906.548	4282978.714	Parking lots/malls	Parking lots/malls
80	641221.17	4299786.375	Parking Lots	Parking lots/malls
81	640092.9454	4291603.05	ELECTRICITY SUBSTATION	Utility Substation Transformers
82	635650.4601	4289318.422	RIVERTON WELDING	Welding Shops
83	625389.7243	4282629.289	MOUNTAIN INSTITUTE	Other
84	640891.0661	4299589.794	YOKUMS' GENERAL STORE	Other
85	640502.1373	4299918.86	YOKUMS' PRINCESS SNOWBIRD #2	Other
86	636000.2827	4289873.972	RIVER MART	Other
87	640835.0213	4299744.56	YOKUMS' PRINCESS SNOWBIRD #1	Other
88	636808.0443	4269074.265	CAVE COUNTRY CAMPGROUND	Other

89	639422.2056	4297140.027	4-U RESTAURANT & MOTEL	Other
90	636761.9908	4269271.665	CAVE COUNTRY STORE	Other
91	641112.7564	4300719.462	YOKUMS' RESTAURANT	Other
92	641062.2026	4300754.608	YOKUMS' RESTAURANT	Other
93	640817.8359	4299823.884	YOKUMS' PRINCESS SNOWBIRD #1	Other
94	636740.2431	4269037.541	CAVE COUNTRY CAMPGROUND	Other
95	639769.1058	4297722.146	MACKSVILLE MART	Other
96	641142.0751	4300681.884	YOKUMS' RESTAURANT	Other
97	641070.9508	4300775.745	YOKUMS' MOTEL	Other
98	636824.9592	4269121.342	CAVE COUNTRY CAMPGROUND	Other
99	640428.7843	4299894.048	YOKUMS' PRINCESS SNOWBIRD #2	Other
100	640566.8582	4299801.246	YOKUMS' HONEYMOON CABINS	Other
101	637664.119	4293510.438	VALLEY VIEW RESTAURANT	Other
102	625454.7299	4282580.872	MOUNTAIN INSTITUTE	Other
103	641079.6886	4300768.196	YOKUMS' MOTEL	Other
104	640995.1574	4300910.109	YOKUMS' NORTH CABINS	Other
105	640974.661	4300981.337	YOKUMS' NORTH CABINS	Other
106	636745.3827	4269228.057	CAVE COUNTRY STORE	Other
107	636832.4864	4269138.876	CAVE COUNTRY CAMPGROUND	Other
108	643555.8178	4304377.09	SHAWNEE RESTAURANT	Other
109	628574.8891	4278040.29	ALMOST HEAVEN HABITAT FOR HUMANITY	Other
110	640736.1809	4299800.12	YOKUMS' PRINCESS SNOWBIRD #1	Other
111	636737.1485	4268978.878	CAVE COUNTRY CAMPGROUND	Other
112	636779.5912	4269012.282	CAVE COUNTRY CAMPGROUND	Other
113	641256.9328	4300637.138	YOKUMS' LOWER PAVILION	Other
114	640981.4167	4300948.064	YOKUMS' NORTH CABINS	Other
115	633856.3997	4286525.532	GATEWAY RESTAURANT	Other
116	627495.7161	4277756.637	D & K DAIRY BAR	Other
117	639726.4562	4297673.727	SKATE WORLD	Other
118	640867.8704	4299634.475	THE FRONT PORCH	Other
119	640592.4397	4299900.989	YOKUMS' PRINCESS SNOWBIRD CAMPGROUND	Camp grounds
120	636695.9595	4268914.902	CAVE COUNTRY CAMPGROUND	Camp grounds
121	641274.4138	4300644.188	YOKUMS' LOWER PAVILION	Camp grounds
122	640785.1575	4299451.6	SENECA SHADOWS CAMPGROUND	Camp grounds
123	652439.1133	4305957.087	BIG BEND CAMPGROUND 0510	Camp grounds
124	633813.1714	4286504.658	Car Dealership	Car dealerships
125	659402.5501	4318847.976	Capon Valley Used Cars, Inc small lot with used vehicles	Car dealerships
126	640180.6965	4299785.172	Car washes	Car washes
127	640027.0732	4291584.239	Cemeteries	Cemeteries
128	635915.8289	4289971.114	Cemeteries	Cemeteries
129	637631.75	4293559.665	JUDY PROPERTY	Cemeteries
130	628393.4572	4277927.08	Cemeteries	Cemeteries
131	637592.8718	4293534.225	BLAND PROPERTY	Cemeteries
132	640009.9525	4296836.28	Cemeteries	Cemeteries
133	631094.6204	4281287.568	Cemeteries	Cemeteries

134	641175.0333	4300513.099	YOKUMS' CEMETERY	Cemeteries
135	652806.3085	4306009.033	BIG BEND CAMPGROUND 0510	Cemeteries
136	640823.1651	4299389.886	SENECA SHADOWS CAMPGROUND	Cemeteries
137	640957.7192	4300013.981	Cemeteries	Cemeteries
138	639918.9675	4296934.364	FARM	Cemeteries
139	640939.8072	4301155.984	COLUMBIA GAS TRANSMISSION SENECA COMPRESSOR STATION	Petroleum production and storage facilities
140	653984.5337	4318774.018	Fairfax Stone Bean's Quarry gravel stockpile along road	Quarry
141	654091.5905	4318220.987	Fairfax Stone Bean's Quarry gravel stockpile along road	Quarry
142	659586.8314	4318910.799	Shale Quarry	Quarry
143	654288.3283	4318009.004	Fairfax Stone Bean's Quarry with old equipment that appears out of service	Quarry
144	654361.6776	4317948.71	Fairfax Stone Bean's Quarry with old equipment present, mostly used as a stockpile area along access road.	Quarry
145	654059.7655	4318621.386	Fairfax Stone Bean's Quarry gravel stockpile along road	Quarry
146	639569.1054	4293081.22	GREER LIME COMPANY	Quarry
147	641272.8403	4300425.598	YOKUMS' COMMUNITY BUILDING	Other
148	640992.0421	4300912.474	YOKUMS' NORTH CABINS	Chemical/petroleum pipelines
149	641093.4596	4300649.091	YOKUMS' RESTAURANT	Chemical/petroleum pipelines
150	625779.735	4282627.23	MONONGAHELA NATIONAL FOREST	Managed forest
151	626687.4328	4282862.241	SPRUCE KNOB-SENECA ROCKS NATIONAL RECREATION AREA	Managed forest
152	624472.5377	4282345.83	Managed Forest	Managed forest
153	641340.1408	4300562.056	NATIONAL FOREST	Park lands
154	640074.3735	4298664.192	Park lands	Park lands
155	633235.539	4285844.479	Road Maintenance Depot- Deicing	Road maintenance depots/deicing operations
156	631087.0999	4281604.78	Circleville Hogh School	Schools
157	631177.7565	4281507.411	Old Circleville High School	Schools
158	631075.1307	4281584.914	Elementary School	Schools
159	651406.2458	4316654.149	Not Found Sewage permit outlet	Sewage sludge/Biological Solids application
160	655188.2405	4316450.111	ALLEN'S MOBILE VILLAGE	Sewage sludge/Biological Solids application
161	641085.3477	4299542.838	SENECA ROCKS DISCOVERY CENTER	Sewer Lines *
162	652634.3525	4282642.444	Storm Water Basins/Drains	Storm water basins/drains
163	648811.9672	4298509.316	Water Plant Discharge	Wastewater Treatment Plant
164	641308.107	4300370.054	YOKUMS' COMMUNITY BUILDING	Wastewater Treatment Plant
165	640078.5096	4298067.088	Wastewater Treatment Plant	Wastewater Treatment Plant
166	652759.2208	4305861.12	BIG BEND CAMPGROUND 0510	Wastewater Treatment Plant
167	640112.4777	4298076.258	TRAILER PARK	Wastewater Treatment Plant
168	641327.8263	4300142.995	SENECA SHADOWS CAMP/SENECA ROCKS	Wastewater Treatment Plant
169	639866.7192	4291837.817	SENECA CAVERNS RESTAURANT	Wastewater Treatment Plant
170	640774.8129	4299257.122	Wastewater Treatment Plant	Wastewater Treatment Plant
171	625411.319	4282646.412	MOUNTAIN INSTITUTE	Composting facility/yard wastes
172	636725.8066	4269256.672	CAVE COUNTRY STORE	Wells: abandoned
173	639915.7264	4297825.885	Well	Wells: water supply
174	635894.3798	4289756.603	CLINTON HEDRICK COMMUNITY BUILDING	Other
175	635753.3275	4289478.207	E.A.C.H.S. BURR HEAD START	Other
176	641356.8729	4300285.899	SENECA SHADOWS CAMP/SENECA ROCKS	Other
177	652812.0838	4306081.542	BIG BEND CAMPGROUND 0510	Other
178	641412.5461	4300109.537	SENECA ROCKS PICNIC AREA	Other

179	652886.1041	4306135.43	BIG BEND CAMPGROUND 0510	Other
180	652693.6039	4306236.672	BIG BEND CAMPGROUND 0510	Other
181	626721.574	4282894.985	SPRUCE KNOB PICNIC 058	Other
182	626723.1455	4282889.715	SPRUCE KNOB PICNIC 058	Other
183	641412.9149	4300129.26	SENECA ROCKS PICNIC AREA	Other
184	652516.0737	4282593.22	Fisher Ridge Golf Course Maintenance Area	Maintenance areas (general)
185	650167.5274	4283098.141	Water Treatment Building	Drinking Water Treatment Plants
186	629894.8456	4281621.835	Water Treatment Building	Drinking Water Treatment Plants
187	645051.5853	4273834.631	Treatment plant located at spring	Drinking Water Treatment Plants
188	648782.2228	4298513.921	Water Treatment Plant	Drinking Water Treatment Plants
189	640031.8243	4298127.454	Water Treatment Building	Drinking Water Treatment Plants
190	631106.2984	4281364.874	Fire Station	Fire Stations
191	652992.3208	4316542.046	Bridge over river at intersection of Smoke Hole Road and Route 55	Highway
192	640047.2115	4298075.406	Highway	Highway
193	631220.5219	4281362.801	Highway	Highway
194	640832.1017	4299635.194	HOUSES	Residential (single family homes)
195	636672.2476	4269236.832	HOUSE	Residential (single family homes)
196	640688.5158	4300112.607	Residential (single family)	Residential (single family homes)
197	651878.9191	4281924.948	Residential (single family homes)	Residential (single family homes)
198	652288.5175	4281799.984	Residential (single family homes)	Residential (single family homes)
199	652525.5497	4282197.959	Residential (single family homes)	Residential (single family homes)
200	652097.9883	4282508.076	Residential (single family homes)	Residential (single family homes)
201	653179.6091	4283925.164	Residential (single family homes)	Residential (single family homes)
202	652860.0241	4284034.153	Residential (single family homes)	Residential (single family homes)
203	654850.7905	4317703.945	Allen's Mobile Village trailer park with about 30 homes and package plant regulated discharge	Residential (single family homes)
204	633802.0017	4286750.126	Residential (single family homes)	Residential (single family homes)
205	634129.3889	4286705.682	Residential (single family homes)	Residential (single family homes)
206	649958.4264	4283239.824	House	Residential (single family homes)
207	635959.4648	4289640.746	HOUSES	Residential (single family homes)
208	639958.72	4298133.79	Trailer Park	Residential (single family homes)
209	627561.3812	4277844.555	HOUSE	Residential (single family homes)
210	639859.9864	4291609.439	HOUSE	Residential (single family homes)
211	639637.5265	4297561.016	HOUSES	Residential (single family homes)
212	641023.1453	4300735.995	HOUSE	Residential (single family homes)
213	636528.9605	4269008.427	WAYSIDE BAPTIST CHURCH & HOUSES	Residential (single family homes)
214	629969.5844	4281602.661	House	Residential (single family homes)
215	641308.3611	4300085.488	HOUSE	Residential (single family homes)
216	637530.2889	4293486.196	HOUSES	Residential (single family homes)
217	635760.2118	4289427.838	HOUSES	Residential (single family homes)
218	640958.8449	4300913.415	HOUSES	Residential (single family homes)
219	643548.3612	4304326.487	HOUSES	Residential (single family homes)
220	640247.1109	4299961.802	TRAILERS	Residential (single family homes)
221	628577.0008	4278148.628	TRAILER	Residential (single family homes)
222	635967.9546	4289835.732	HOUSES	Residential (single family homes)
223	639655.361	4296974.557	HOUSES	Residential (single family homes)

224	633939.6953	4286663.626	HOUSES	Residential (single family homes)
225	640921.339	4299921.227	HOUSES	Residential (single family homes)
226	629969.5844	4281602.661	House	Septic Systems (leach field)*
227	649958.4264	4283239.824	House	Septic Systems (leach field)*
228	639814.1251	4291679.878	TRAILER	Septic Systems (leach field)*
229	649958.4341	4283239.879	House	Septic Systems (leach field)*
230	629969.5577	4281602.694	House	Septic Systems (leach field)*
231	624772.5627	4282510.914	Septic Systems (leach field)	Septic Systems (leach field)*
232	644890.7032	4273749.066	Residential Area	Septic Systems (leach field)*

Table 7. Locally Identified Potential Sources of Significant Contamination (PROVIDED BY UTILITY OUTSIDE OF DISK)

PSSC Number	Map Code	Site Name	Site Description	Comments
012-00000023	AST	WVDOH – Grant County Route 42 Headquarters	Split Tank holding 10,000 gallons (5,000 gallons each) of Regular Grade Gasoline and #2 Diesel Fuel	Notified by letter Dated March 28, 2019. SEE APPENDIX A for letter
036-00000024	AST	Columbia Gas Transmission – Seneca Compressor Station	2,000 gallon gasoline	Notified by letter dated April 1, 2019 SEE APPENDIX A for letter
036-00000026	AST	Columbia Gas Transmission – Seneca Compressor Station	2,000 gallon lube oil	Notified by letter dated April 1, 2019 SEE APPENDIX A for letter
036-00000073	AST	Columbia Gas Transmission – Seneca Compressor Station	2,000 gallon pipeline liquids	Notified by letter dated April 1, 2019 SEE APPENDIX A for letter
036-00000074	AST	Columbia Gas Transmission – Seneca Compressor Station	2,000 gallon pipeline liquids	Notified by letter dated April 1, 2019 SEE APPENDIX A for letter

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Regulated PSSC List

ABANDONED MINE LANDS PROBLEM AREAS

OBJECTID	x	y	PADNAME	PADNUMBER
1	634406.1552	4295615.856	BRUSHY RUN MINE	WV005454

ABANDONED MINE LANDS PLANNING UNITS

OBJECTID	x	y	STATES	NFHAP_UNIT
1	644783.7499	4319309.78	WV	Blackbird Knob
2	649895.75	4318209.048	WV	Jordan Run
3	646326.2582	4267855.7	WV	Little Fork-South Fork South Branch Potomac River
4	624117.7628	4260786.495	VA,WV	Frank Run-South Branch Potomac River
5	654279.3325	4292161.685	WV	Mill Run-South Branch Potomac River
6	641977.3886	4260015.2	VA,WV	Brushy Fork-South Fork South Branch Potomac River
7	631604.6186	4281779.052	WV	Red Lick Run-North Fork South Branch Potomac River
8	647214.918	4282307.999	WV	Hayes Gap Run-South Branch Potomac River
9	656577.5833	4289170.395	WV	Rough Run-South Fork South Branch Potomac River
10	627633.0054	4255950.759	VA,WV	Strait Creek
11	640278.3136	4304080.666	WV	Hopeville
12	662535.3436	4298540.454	WV	Rohrbaugh Run-South Fork South Branch Potomac River
13	635506.0131	4267860.842	VA,WV	East Dry Run-South Branch Potomac River
14	648686.9939	4274043.525	WV	Miller Run-South Fork South Branch Potomac River
15	657563.7771	4321314.354	WV	Outlet Lunice Creek
16	635601.6483	4300640.275	WV	Onego
17	652711.9433	4307379.316	WV	Ketterman
18	640302.3259	4276698.964	WV	Smith Creek-South Branch Potomac River
19	630774.2611	4305137.691	WV	Harman
20	614070.5303	4256793.97	WV	Outlet Deer Creek
21	643733.4437	4288459.615	WV	Reeds Creek
22	630469.9955	4295923.352	WV	Seneca Creek
23	638365.7434	4311254.736	WV	Laneville
24	618264.7178	4274496.371	WV	Headwaters East Fork Greenbrier River
25	614998.2194	4262868.617	WV	Outlet East Fork Greenbrier River
26	622831.3472	4266029.588	VA,WV	Laurel Fork-North Fork South Branch Potomac River
27	660343.3969	4294672.166	WV	Kettle Creek-South Fork South Branch Potomac River
28	660294.8037	4297233.174	WV	South Mill Creek
29	640694.3506	4264705.445	VA,WV	Whitehorn Creek-Thorn Creek
30	652777.2386	4282490.853	WV	Hawes Run-South Fork South Branch Potomac River
31	623837.3312	4279377.954	WV	Big Run
32	639515.9579	4297697.917	WV	Mouth of Seneca
33	631908.7567	4254710.406	VA,WV	Davis Run-Bullpasture River
34	624598.2428	4290210.653	WV	White
35	634034.3331	4291972.651	WV	Simoda
36	649815.507	4325274.485	WV	Maysville
37	654450.4227	4306035.175	WV	Johnson Run-Mill Creek

ABANDONED MINE LANDS SITES

OBJECTID	x	y	PADNUMBER	PADNAME
1	633919.1049	4295522.19	WV005454	BRUSHY RUN MINE
2	634069.0247	4295511.706	WV005454	BRUSHY RUN MINE
3	633949.2675	4295480.518	WV005454	BRUSHY RUN MINE

ABANDONED MINE LANDS POLYGONS

OBJECTID	x	y	PADNUMBER	PADNAME
1	633851.8675	4295560.566	WV005454	BRUSHY RUN MINE
2	634459.6903	4295615.826	WV005454	BRUSHY RUN MINE

OIL AND GAS WELLS

OBJECTID	x	y	PERMITID	COUNTY	PERMIT	PERMIT_TYP	ISSUE_DATE	COMPLETE_D	RESP_PARTY
1	626915.3	4280584	7100016	71	16	PLUG	NA	NA	CNG PRODUCING COMPANY
2	648379.2	4322893	2300005	23	5	FRACT	9/25/1986	NA	COLUMBIA NATURAL RESOURCES, LLC
3	637004.3	4295369.2	7100012	71	12	OTHRW	8/13/1988	NA	COLUMBIA NATURAL RESOURCES, LLC
4	647837.3	4320013.3	2300006	23	6	PLUG	4/17/1987	NA	EQT PRODUCTION COMPANY
5	630105.74	4298930.07	7100003	71	3	PLUG	8/11/2006	10/9/2006	T & F EXPLORATION, LP
6	644731.9	4313089	2300007	23	7	OTHRW	5/31/1984	NA	COLUMBIA NATURAL RESOURCES, LLC
7	630981.47	4297637.28	7100025	71	25	NEWEL	4/10/2008	11/20/2008	T & F EXPLORATION, LP
8	633640.6	4289750.8	7100013	71	13	OTHRW	9/30/1989	NA	COLUMBIA NATURAL RESOURCES, LLC
9	633640.6	4289750.8	7100013	71	13	PLUG	5/2/2012	4/17/2013	CHESAPEAKE APPALACHIA, L.L.C.
10	638929.9	4301993.7	7100014	71	14	PLUG	8/31/1989	NA	COLUMBIA NATURAL RESOURCES, LLC
11	647837.3	4320013.3	2300006	23	6	OTHRW	2/7/1984	NA	EQT PRODUCTION COMPANY
12	634529.17	4291240.31	7100021	71	21	NEWEL	9/20/2007	9/3/2008	MEGAENERGY OPERATING, INC.
13	627643.61	4280026.52	7100017	71	17	NEWEL	NA	1/1/1900	CNG PRODUCING COMPANY
14	647489.1	4323117.9	2300025	23	25	PLUG	6/18/1991	NA	EQT PRODUCTION COMPANY
15	629576.49	4282589.85	7100022	71	22	NEWEL	10/15/2007	NA	MEGAENERGY OPERATING, INC.
16	637004.3	4295369.2	7100012	71	12	PLUG	7/23/1989	NA	COLUMBIA NATURAL RESOURCES, LLC
17	643302.7	4308115	7100010	71	10	OTHRW	9/1/1984	NA	COLUMBIA NATURAL RESOURCES, LLC
18	628053.4	4300634.3	7100011	71	11	OTHRW	2/28/1985	NA	BEREA OIL & GAS CORP
19	629697.4	4263048.8	7100006	71	6	PLUG	2/11/1977	NA	DOMINION TRANSMISSION INC
20	622497.5	4283071.2	7100005	71	5	PLUG	12/3/1957	NA	DOMINION TRANSMISSION INC
21	630105.74	4298930.07	7100003	71	3	OTHRW	5/1/1952	NA	OPERATOR UNKNOWN
22	638929.9	4301993.7	7100014	71	14	OTHRW	8/27/1989	NA	COLUMBIA NATURAL RESOURCES, LLC
23	642200.4	4297087.8	7100001	71	1	OTHRW	NA	NA	OPERATOR UNKNOWN
24	619521.2	4278402.8	7100004	71	4	PLUG	6/24/1955	NA	OXY USA, INC.
25	622497.5	4283071.2	7100005	71	5	OTHRW	12/1/1957	NA	DOMINION TRANSMISSION INC
26	634818.73	4294206.02	7100026	71	26	NEWEL	12/4/2008	NA	MEGAENERGY OPERATING, INC.
27	649266.3	4324521.1	2300015	23	15	OTHRW	12/8/1986	NA	COLUMBIA NATURAL RESOURCES, LLC
28	647649.2	4320589.9	2300017	23	17	OTHRW	4/10/1987	NA	COLUMBIA NATURAL RESOURCES, LLC
29	630165.71	4298765.76	7100019	71	19	NEWEL	7/24/2006	9/27/2006	T & F EXPLORATION, LP
30	635641.69	4290405.16	7100024	71	24	FRACT	8/9/2010	9/30/2010	MEGAENERGY OPERATING, INC.
31	642200.4	4297087.8	7100001	71	1	PLUG	7/24/1957	NA	OPERATOR UNKNOWN

32	645497.2	4314361.2	2300009	23	9	NEWEL	NA	1/1/1900	EQT PRODUCTION COMPANY
33	629697.4	4263048.8	7100006	71	6	OTHRW	4/11/1964	NA	DOMINION TRANSMISSION INC
34	627845.23	4282708.72	7100023	71	23	NEWEL	10/30/2007	NA	MEGAENERGY OPERATING, INC.
35	643331.7	4310066.5	7100015	71	15	PLUG	NA	12/17/1990	EQT PRODUCTION COMPANY
36	648379.2	4322893	2300005	23	5	FRACT	NA	NA	EQT PRODUCTION COMPANY
37	625085.15	4279928.37	7100020	71	20	NEWEL	8/3/2006	NA	MEGAENERGY OPERATING, INC.
38	647489.1	4323117.9	2300025	23	25	PLUG	10/15/1989	6/18/1991	COLUMBIA NATURAL RESOURCES, LLC
39	619521.2	4278402.8	7100004	71	4	OTHRW	5/1/1955	NA	OXY USA, INC.
40	635641.69	4290405.16	7100024	71	24	NEWEL	1/11/2008	8/23/2008	MEGAENERGY OPERATING, INC.
41	643331.7	4310066.5	7100015	71	15	PLUG	12/17/1990	NA	EQT PRODUCTION COMPANY

HPU

OBJECTID	x	y	office	PERMIT	RESP_PARTY
1	650901.2689	4318757.434	HPU	WVG022505	PETERSBURG BLOCKS INC
2	650955.9137	4318419.201	HPU	WV1023624	PETERSBURG BLOCKS INC
3	654308.7589	4318021.61	HPU	WV0006539	FAIRFAX MATERIALS, INC.
4	639589.6295	4293157.978	HPU	WV0091821	GREER LIME COMPANY
5	654382.1115	4317961.317	HPU	WV1025457	FAIRFAX MATERIALS, INC.
6	640259.5037	4293274.763	HPU	WV0091821	GREER LIME COMPANY
7	650901.2689	4318757.434	HPU	WV1023624	PETERSBURG BLOCKS INC
8	639649.7617	4292480.649	HPU	WV0091821	GREER LIME COMPANY
9	639217.9121	4293706.508	HPU	WV0091821	GREER LIME COMPANY
10	650927.1159	4318665.338	HPU	WV1023624	PETERSBURG BLOCKS INC
11	640044.8779	4293350.933	HPU	WV0091821	GREER LIME COMPANY
12	654112.0985	4318233.591	HPU	WVG022526	FAIRFAX MATERIALS, INC.
13	654005.0373	4318786.613	HPU	WV0006539	FAIRFAX MATERIALS, INC.
14	650955.9137	4318419.201	HPU	WVG022505	PETERSBURG BLOCKS INC
15	654080.1877	4318633.871	HPU	WV1025457	FAIRFAX MATERIALS, INC.
16	640116.6959	4293383.061	HPU	WV0091821	GREER LIME COMPANY
17	654283.4763	4318082.733	HPU	WVG022526	FAIRFAX MATERIALS, INC.
18	650932.4291	4318387.888	HPU	WV1023624	PETERSBURG BLOCKS INC
19	650905.9907	4318510.836	HPU	WV1023624	PETERSBURG BLOCKS INC
20	650956.5047	4318388.349	HPU	WVG022505	PETERSBURG BLOCKS INC
21	654005.0373	4318786.613	HPU	WV1025457	FAIRFAX MATERIALS, INC.
22	639552.1577	4292540.545	HPU	WV0091821	GREER LIME COMPANY
23	640298.8287	4294003.053	HPU	WV0091821	GREER LIME COMPANY
24	654080.1877	4318633.871	HPU	WVG022526	FAIRFAX MATERIALS, INC.
25	654283.4763	4318082.733	HPU	WV0006539	FAIRFAX MATERIALS, INC.
26	650927.1159	4318665.338	HPU	WVG022505	PETERSBURG BLOCKS INC
27	654308.7589	4318021.61	HPU	WV1025457	FAIRFAX MATERIALS, INC.
28	640259.5037	4293274.763	HPU	WV0091821	GREER LIME COMPANY
29	654382.1115	4317961.317	HPU	WVG022526	FAIRFAX MATERIALS, INC.
30	654112.0985	4318233.591	HPU	WV0006539	FAIRFAX MATERIALS, INC.
31	650647.3163	4318197.471	HPU	WVG022505	PETERSBURG BLOCKS INC
32	654283.4763	4318082.733	HPU	WV1025457	FAIRFAX MATERIALS, INC.
33	639733.3609	4293222.115	HPU	WV0091821	GREER LIME COMPANY
34	639500.6925	4292724.696	HPU	WV0091821	GREER LIME COMPANY
35	654308.7589	4318021.61	HPU	WVG022526	FAIRFAX MATERIALS, INC.
36	650240.7197	4318066.365	HPU	WV1023624	PETERSBURG BLOCKS INC
37	650905.9907	4318510.836	HPU	WVG022505	PETERSBURG BLOCKS INC
38	650647.3163	4318197.471	HPU	WV1023624	PETERSBURG BLOCKS INC
39	654382.1115	4317961.317	HPU	WV0006539	FAIRFAX MATERIALS, INC.
40	654112.0985	4318233.591	HPU	WV1025457	FAIRFAX MATERIALS, INC.
41	639268.3707	4293584.059	HPU	WV0091821	GREER LIME COMPANY
42	654005.0373	4318786.613	HPU	WVG022526	FAIRFAX MATERIALS, INC.
43	654080.1877	4318633.871	HPU	WV0006539	FAIRFAX MATERIALS, INC.
44	646392.7029	4320522.6	HPU	WV0068471	BUFFALO COAL COMPANY INC

LEAKING UNDERGROUND STORAGE TANKS SITES

OBJECTID	x	y	WVID__	Leak__	Facility_Name	Address	City	State
1	640922.9946	4299626.392	3604463	88-060	YOKUM'S GROCERY	HC 59 BOX 3,	SENECA ROCKS	WV
2	641295.5903	4300373.109	3607911	89-162	SENECA ROCKS ELEMENTARY SCHOOL	RT 28 N,	SENECA ROCKS	WV
3	635952.8997	4289857.192	3607273	08-026	RIVER MART	PO BOX 41,	RIVERTON	WV
4	658387.1117	4318830.488	1201132	89-034	GRANT COUNTY HQ 05121	RT 2 BOX 245,	PETERSBURG	WV
5	640922.9946	4299626.392	3604463	99-043	YOKUM'S GROCERY	HC 59 BOX 3,	SENECA ROCKS	WV
6	638213.5814	4293164.769	1401364	90-005-L14	7-ELEVEN #16924	209 W MAIN ST,	ROMNEY	WV
7	641216.122	4300772.573	3607756	95-139	HARPER'S OLD COUNTRY STORE	PO BOX 7,	SENECA ROCKS	WV
8	645400.6568	4278953.873	3604447	99-013	MAIN STREET SHELL	N MAIN ST,	FRANKLIN	WV

OFFICE OF WATER RESOURCES NPDES

x	y	permit_id	fac_name
652510.0005	4282859.471	WV0105996	Fisher Mountain WWTP
636843.2772	4269146.85	0711-04-071	Cave Country Camping (Campground)
650079.7995	4294826.702	WVR105483	Thompson Bridge, S336-11-0.58
638666.8657	4294551.403	WVG611131	Hinkle Trucking Company
641393.1565	4300175.782	0212-99-071	Seneca Rocks Discovery Center & Picnic Area (USDA Forest Service)
639302.3558	4275178.483	WVR105445	2nd Smith Creek Bridge, S336-18-3.77
636115.2348	4290577.563	0437-01-071	Pendleton Community Care Riverton Clinic
637963.2455	4300244.066	WVG412450	Kisamore, Ruby M
654494.0507	4317516.744	WVR102997	Spring Creek Renovatin & Stabilization
658481.5321	4318835.985	WVG980098	Grant County HQ
648838.2591	4298530.049	WVG640062	Upper Tract
638511.5973	4272034.636	WVG980082	Franklin South Salt Shed & Storage Lot
640835.6785	4299339.235	WVG551371	Seneca Shadows Campground
647449.3368	4281653.037	1155-07-071	Living Faith Church
633636.7934	4285250.941	WVG980091	Judy Gap Salt Shed & Storage Lot
636621.4562	4301535.254	WVG980092	Onego Salt Shed & Storage Lot
648119.1341	4323831.663	WVR102459	Wilderness Retreat at Dolly Sods
654913.9029	4317680.838	WVG550766	ALLEN'S MOBILE VILLAGE
645598.4664	4278576.851	WVR106745	Franklin Elementary School
641509.5624	4300482.762	WVG550292	Yokum's Vacationland
648396.9827	4313842.185	0422-01-023	Harman's Northfork Cottages (Michael T. Harman)
658591.1671	4318905.955	WVG550433	POTOMAC ADMINISTRATIVE SITE
645083.1855	4273885.692	WVG640022	Town of Franklin
643691.8157	4290290.822	WV0111821	Reeds Creek Hatchery
640260.484	4299796.55	WVG990179	Hinkle Car Wash
639749.1256	4299943.355	WVR106645	Harper Campground Project
656413.4735	4317798.539	WVG610532	DETTINBURN TRANSPORT INC
643710.9187	4304452.293	0489-02-071	Appalachian Cabins
652510.0005	4282859.471	WV0105996	Fisher Mountain WWTP
640989.6542	4301408.526	WVG670523	Seneca Compressor Station Modernization and Demolition
633260.9296	4285820.52	WVG980083	Judy Gap Sub-Station
640271.0801	4299796.738	WVG611472	William R. Warner Jr. Trucking
652717.5448	4306003.282	0772-04-023	Big Bend Recreation Area (USDA Forest Service)
652599.9951	4283152.549	WVG640138	Fisher Mountain Estates WTP
631116.837	4281591.22	0357-01-071	Brandywine Elementary School
637213.2212	4300407.206	WVR105800	Seneca Creek Bridge Replacement, S336-33-5.93
648986.2328	4294318.245	WVG550699	UPPER TRACT PENDLETON CNTY IND. PK
634921.2147	4288091.05	WVG610174	AWP-MILL 1
645654.5427	4279289.292	WVG980084	Pendleton County HQ
637274.7746	4276234.16	WVG410613	William W. Hartman
650422.1214	4316679.07	WVG550529	SMOKE HOLE CAVERNS
652891.3755	4282914.207	0939-05-071	The Highlands Golf Club House
638315.081	4286421.649	0533-02-071	North Fork Senior Center
645643.1904	4282819.084	WVG980090	Franklin North Salt Shed & Storage Lot
643095.5692	4274425.742	WVG550812	Pendleton Business Ctr
661909.9667	4318485.524	WVG611614	Hott Disposal Services Inc.
639917.3948	4297615.542	WVR106737	Miscellaneous Water Extensions Phase I - Senaca Ro
645936.3444	4278698.206	WV0024970	Town of Franklin
640152.5513	4298107.532	WVG550629	WOODSEDGE MHP
637957.8201	4300555.643	WVR106175	ONEGO BRIDGE BORROW AREA

OFFICE OF WATER RESOURCES NPDES OUTLETS

OBJECTID	x	y	permit_id	fac_name	issuedate	expiredate	sub_desc
1	652510.0005	4282859.471	WV0105996	Fisher Mountain WWTP	9/18/2009	9/17/2014	Ind Other
2	643666.5925	4289043.682	WV0111821	Reeds Creek Hatchery	6/29/1993	5/30/2016	Aquaculture
3	636094.0184	4290577.2	0437-01-071	Pendleton Community Care Riverton Clinic	8/19/2002	5/16/2018	5W32 - Septic Systems(Drain Field Disposal Mthd)
4	641350.7741	4300175.026	0212-99-071	Seneca Rocks Discovery Center & Picnic Area (USDA Forest Service)	7/25/2002	5/2/2019	5W32 - Septic Systems(Drain Field Disposal Mthd)
5	633287.0119	4285848.057	WVG980083	Judy Gap Sub-Station	10/27/2009	10/10/2016	WV DOH+MUN
6	638666.8657	4294551.403	WVG611131	Hinkle Trucking Company	3/29/2004	3/31/2014	Storm Water Industrial (GP)
7	645643.1904	4282819.084	WVG980090	Franklin North Salt Shed & Storage Lot	10/27/2009	10/10/2016	WV DOH+MUN
8	643779.2613	4304480.637	0489-02-071	Appalachian Cabins	5/30/2003	1/3/2019	5W32 - Septic Systems(Drain Field Disposal Mthd)
9	654913.9029	4317680.838	WVG550766	ALLEN'S MOBILE VILLAGE	3/21/1995	9/23/2015	Sewage General
10	634991.6838	4288004.169	WVG610174	AWP-MILL 1	11/1/1993	3/31/2014	Storm Water Industrial (GP)
11	640271.0801	4299796.738	WVG611472	William R. Warner Jr. Trucking	1/7/2011	3/31/2014	Storm Water Industrial (GP)
12	640783.4169	4299297.654	0212-99-071	Seneca Rocks Discovery Center & Picnic Area (USDA Forest Service)	7/25/2002	5/2/2019	5W32 - Septic Systems(Drain Field Disposal Mthd)
13	641509.5624	4300482.762	WVG550292	Yokum's Vacationland	12/24/1993	9/23/2015	Sewage General
14	638552.4856	4272130.196	WVG980082	Franklin South Salt Shed & Storage Lot	10/27/2009	10/10/2016	WV DOH+MUN
15	648426.5494	4313957.934	0422-01-023	Harman's Northfork Cottages (Michael T. Harman)	7/26/2002	4/28/2013	5W32 - Septic Systems(Drain Field Disposal Mthd)
16	633636.7934	4285250.941	WVG980091	Judy Gap Salt Shed & Storage Lot	10/28/2009	10/10/2016	WV DOH+MUN
17	635086.0376	4288073.522	WVG610174	AWP-MILL 1	11/1/1993	3/31/2014	Storm Water Industrial (GP)
18	636718.2987	4268988.889	0711-04-071	Cave Country Camping (Campground)	11/12/2004	4/16/2015	5W32 - Septic Systems(Drain Field Disposal Mthd)
19	652717.5448	4306003.282	0772-04-023	Big Bend Recreation Area (USDA Forest Service)	9/5/2007	9/5/2012	5W12 - Domestic Wastewater Trtmnt Plant Effl Disp
20	638315.081	4286421.649	0533-02-071	North Fork Senior Center	2/11/2005	8/8/2017	5W32 - Septic Systems(Drain Field Disposal Mthd)
21	636621.4562	4301535.254	WVG980092	Onego Salt Shed & Storage Lot	10/27/2009	10/10/2016	WV DOH+MUN
22	648986.2328	4294318.245	WVG550699	UPPER TRACT PENDLETON CNTY IND. PK	9/12/1994	9/23/2015	Sewage General
23	648395.7088	4313909.922	0422-01-023	Harman's Northfork Cottages (Michael T. Harman)	7/26/2002	4/28/2013	5W32 - Septic Systems(Drain Field Disposal Mthd)
24	643666.5925	4289043.682	WV0111821	Reeds Creek Hatchery	6/29/1993	5/30/2016	Aquaculture
25	636744.8909	4268989.343	0711-04-071	Cave Country Camping (Campground)	11/12/2004	4/16/2015	5W32 - Septic Systems(Drain Field Disposal Mthd)
26	640210.4197	4298731.904	0212-99-071	Seneca Rocks Discovery Center & Picnic Area (USDA Forest Service)	7/25/2002	5/2/2019	5W32 - Septic Systems(Drain Field Disposal Mthd)
27	658606.2367	4318682.635	WVG550433	POTOMAC ADMINISTRATIVE SITE	12/24/1993	9/23/2015	Sewage General
28	633287.4656	4285820.964	WVG980083	Judy Gap Sub-Station	10/27/2009	10/10/2016	WV DOH+MUN
29	631116.837	4281591.22	0357-01-071	Brandywine Elementary School	3/1/2002	11/8/2018	5W32 - Septic Systems(Drain Field Disposal Mthd)
30	640835.6785	4299339.235	WVG551371	Seneca Shadows Campground	8/29/2005	9/23/2015	Sewage General
31	643726.8037	4304452.581	0489-02-071	Appalachian Cabins	5/30/2003	1/3/2019	5W32 - Septic Systems(Drain Field Disposal Mthd)
32	636746.0482	4268921.613	0711-04-071	Cave Country Camping (Campground)	11/12/2004	4/16/2015	5W32 - Septic Systems(Drain Field Disposal Mthd)
33	643095.5692	4274425.742	WVG550812	Pendleton Business Ctr	1/30/1996	9/23/2015	Sewage General
34	638511.5973	4272034.636	WVG980082	Franklin South Salt Shed & Storage Lot	10/27/2009	10/10/2016	WV DOH+MUN
35	640152.5513	4298107.532	WVG550629	WOODSEDGE MHP	12/24/1993	9/23/2015	Sewage General
36	648396.9827	4313842.185	0422-01-023	Harman's Northfork Cottages (Michael T. Harman)	7/26/2002	4/28/2013	5W32 - Septic Systems(Drain Field Disposal Mthd)
37	634921.5594	4288070.731	WVG610174	AWP-MILL 1	11/1/1993	3/31/2014	Storm Water Industrial (GP)
38	652510.0005	4282859.471	WV0105996	Fisher Mountain WWTP	9/18/2009	9/17/2014	OTHER
39	661909.9667	4318485.524	WVG611614	Hott Disposal Services Inc.	11/20/2012	3/31/2014	Storm Water Industrial (GP)
40	636735.0641	4268941.75	0711-04-071	Cave Country Camping (Campground)	11/12/2004	4/16/2015	5W32 - Septic Systems(Drain Field Disposal Mthd)
41	652891.3755	4282914.207	0939-05-071	The Highlands Golf Club House	4/3/2006	9/14/2016	5W32 - Septic Systems(Drain Field Disposal Mthd)

42	637091.6916	4297322.284	WV0116726	Triple R Ranch	3/12/2014	3/11/2019	CAFO
43	656411.7259	4317886.598	WVG610532	DETTINBURN TRANSPORT INC	6/21/1995	3/31/2014	Storm Water Industrial (GP)
44	633260.9296	4285820.52	WVG980083	Judy Gap Sub-Station	10/27/2009	10/10/2016	WV DOH+MUN
45	650422.1214	4316679.07	WVG550529	SMOKE HOLE CAVERNS	12/24/1993	9/23/2015	Sewage General
46	652599.9951	4283152.549	WVG640138	Fisher Mountain Estates WTP	7/17/2009	6/28/2012	Water Treatment Plant (GP)
47	636864.5506	4269147.214	0711-04-071	Cave Country Camping (Campground)	11/12/2004	4/16/2015	SW32 - Septic Systems(Drain Field Disposal Mthd)
48	640497.7849	4299265.484	0212-99-071	Seneca Rocks Discovery Center & Picnic Area (USDA Forest Service)	7/25/2002	5/2/2019	SW32 - Septic Systems(Drain Field Disposal Mthd)
49	645083.1855	4273885.692	WVG640022	Town of Franklin	9/14/2000	7/18/2018	Water Treatment Plant (GP)
50	640260.484	4299796.55	WVG990179	Hinkle Car Wash	6/18/2004	6/18/2017	Car Wash (GP)
51	658481.5321	4318835.985	WVG980098	Grant County HQ	1/9/2009	10/10/2016	WV DOH+MUN
52	636115.2348	4290577.563	0437-01-071	Pendleton Community Care Riverton Clinic	8/19/2002	5/16/2018	SW32 - Septic Systems(Drain Field Disposal Mthd)
53	636843.2772	4269146.85	0711-04-071	Cave Country Camping (Campground)	11/12/2004	4/16/2015	SW32 - Septic Systems(Drain Field Disposal Mthd)
54	645936.3444	4278698.206	WV0024970	Town of Franklin	6/20/1974	2/27/2016	Ind POTW
55	645654.5427	4279289.292	WVG980084	Pendleton County HQ	10/27/2009	10/10/2016	WV DOH+MUN
56	647476.2638	4281633.208	1155-07-071	Living Faith Church	1/9/2008	6/11/2018	SW32 - Septic Systems(Drain Field Disposal Mthd)
57	640989.6542	4301408.526	WVG670523	Seneca Compressor Station Modernization and Demolition	4/1/2013	1/19/2017	Hydrostatic Testing (GP)
58	652853.4897	4306093.997	0772-04-023	Big Bend Recreation Area (USDA Forest Service)	9/5/2007	9/5/2012	SW12 - Domestic Wastewater Trtmnt Plant Effl Disp
59	637963.2455	4300244.066	WVG412450	Kisamore, Ruby M	10/10/2003	5/31/2014	Home Aeration Unit General
60	637274.7746	4276234.16	WVG410613	William W. Hartman	9/29/2000	3/30/2009	Home Aeration Unit General
61	648838.2591	4298530.049	WVG640062	Upper Tract	11/21/2001	7/18/2018	Water Treatment Plant (GP)

SPECIAL RECLAMATIONS

OBJECTID	x	y	COMPANY
1	640709.9976	4293954	BRADFORD STONE, INC.

SUPERFUND RESOURCE CONSERVATION & RECOVERY ACT FACILITIES

OBJECTID_1	PRIMARY_NA	LOCATION_A	SUPPLEMENT	CITY_NAME	COUNTY_NAM
1	SOUTH BRANCH OF THE POTOMAC -	UNKNOWN		FRANKLIN	PENDLETON
2	ALLEN'S MOBILE VILLAGE	HC 59 BOX 500		CABINS	GRANT
3	40,000 SF COMMERCIAL BLDG PROJ	UNKNOWN		UPPER TRACT	PENDLETON
4	FRANKLIN AIRPORT SUBDIVISION	UNKNOWN		UNKNOWN	PENDLETON
5	TIMBER RIDGE INTERSECTION	UNKNOWN		ONEGO	PENDLETON
6	FRANKLIN WWTP	LEE DR		FRANKLIN	PENDLETON
7	YOKUM'S VACATIONLAND	HC 59, BOX 3		SENECA ROCKS	PENDLETON
8	BROWN, LILLIAN M	111 MAPLE AVE		FRANKLIN	PENDLETON
9	RIVER BEND GARDENS	RT 220/35		FRANKLIN	PENDLETON
10	REEDS CREEK HATCHERY	REEDS CREEK ROAD		FRANKLIN	PENDLETON
11	BARKLEY NATURAL STREAM RESTORA	UNKNOWN		SENECA ROCKS	PENDLETON
12	MCINTOSH RUN CURVE	UNKNOWN		ONEGO	PENDLETON
13	THE CHURCH OF JESUS CHRIST OF	UNKNOWN		PETERSBURG	GRANT
14	UPPER TRACT PENDLETON CNTY IND	29 INDUSTRIAL PARK ROAD		UPPER TRACT	PENDLETON
15	CAVE BORROW SITE	UNKNOWN		FRANKLIN	PENDLETON
16	SUDDY BRIDGE	UNKNOWN		CHERRY GROVE	PENDLETON
17	HOTT'S AG SERVICES, INC	PIKE RD		FRANKLIN	PENDLETON
18	DEER RUN PARK BRIDGE, S336-12-	UNKNOWN		FRANKLIN, WV	PENDLETON
19	SMOKE HOLE CAVERNS	HC 59, BOX 39		SENECA ROCKS	PENDLETON
20	ONEGO TO SENECA ROCKS, S336-33	UNKNOWN		SENECA ROCKS	PENDLETON
21	PENDLETON COUNTY HQ	US ROUTE 33 EAST		FRANKLIN	PENDLETON
22	MOUNTAIN STATE FISH HATCHERY	UNKNOWN		UNKNOWN	PENDLETON
23	FRANKLIN SOUTH SALT SHED &	US ROUTE 220 SOUTH		FRANKLIN	PENDLETON
24	WVDOH S336-33-33.85 RIVER GAP	962 BLUE GRAY TRAIL		FRANKLIN	PENDLETON
25	ARRA-WV PFH 097-2(001), REHAB	UNKNOWN		PETERSBURG	GRANT
26	TOWN OF FRANKLIN WATER SYSTEM	UNKNOWN		FRANKLIN	PENDLETON
27	SENECA SHADOWS CAMPGROUND	US RTE 33 & WV RT 28		SENECA ROCKS	PENDLETON
28	FISHER MOUNTAIN ESTATES WTP	UNKNOWN		FRANKLIN	PENDLETON
29	SENECA 6C4370	ROUTE 28 NORTH		SENECA ROCKS	PENDLETON
30	THOMPSON BRIDGE, S336-11-0.58	UNKNOWN		UPPER TRACT, WV	PENDLETON
31	DETTINBURN TRANSPORT INC	ST RT 28+55 WEST		PETERSBURG	GRANT

32	UPPER TRACT BRIDGE S336-220-2	UNKNOWN	UPPER TRACT	PENDLETON
33	SENECA ROCKS ELEMENTARY SCHOOL	POST OFFICE DRAWER 888	FRANKLIN	PENDLETON
34	BIG RUN TO CHERRY GROVE ROAD,	WV ROUTE 28	CIRCLEVILLE	PENDLETON
35	WILLOW SPRING FARM - POULTRY H	UNKNOWN	DEER RUN	PENDLETON
36	GREER INDUSTRIES INC DBA GREER LIME CO	RT 33	RIVERTON	PENDLETON
37	FAIRFAX SAND & CRUSHED STONE C	FRANKLIN PLANT	FRANKLIN	PENDLETON
38	PENDLETON CTY SCHOOL DISTRICT	WALNUT ST	FRANKLIN	PENDLETON
39	TOWN OF FRANKLIN	PO BOX 483	FRANKLIN	PENDLETON
40	AWP-MILL 1	COUNTY ROUTE 5/7 OFF US ROUTE	RIVERTON	PENDLETON
41	KLINE MOTOR SALES	MAPLE AVE	FRANKLIN	PENDLETON
42	ROOT RUN BRIDGE, S336-9-0.48	UNKNOWN	RIVERTON	PENDLETON
43	FRANKLIN NORTH SALT SHED &	US ROUTE 220 NORTH	FRANKLIN	PENDLETON
44	BOARD OFFICE	101 WALNUT STREET	FRANKLIN	PENDLETON
45	JACK ISNER (WVDOH DISTRICT 8)	CR 19 SOUTH OF CHERRY GROVE	CIRCLEVILLE	PENDLETON
46	HANOVER SHOE COMPANY	ROUTE 220 SOUTH	FRANKLIN	PENDLETON
47	FRANKLIN ELEMENTARY	409 EVICK DRIVE	FRANKLIN	PENDLETON
48	WILDERNESS RETREAT AT DOLLY SO	UNKNOWN	JORDAN RUN	GRANT
49	BIG BEND CAMPGROUND	UNKNOWN	PETERSBURG	GRANT
50	FISHER MOUNTAIN - SECTION 1	WV SEC RT 12	FRANKLIN	PENDLETON
51	AUMANNS CUSTOM AUTO	53 MILL ROAD	FRANKLIN	PENDLETON
52	TOURNAMENT PARK	UNKNOWN	FRANKLIN	PENDLETON
53	ONEGO SALT SHED & STORAGE	US ROUTE 33 WEST	ONEGO	PENDLETON
54	COUNTY RT 5/5 INTERSECTION	UNKNOWN	RIVERTON	PENDLETON
55	PENDLETON CO SCHOOLS	WALNUT STREET	FRANKLIN	PENDLETON
56	HEVENER MOTOR EQUIPMENT CO	RTE 33 EAST	FRANKLIN	PENDLETON
57	NORTH FORK CHRISTIAN	178 SUNRISE DRIVE	PETERSBURG	GRANT
58	PENDLETON MANOR NURSING HOME E	141 MAPLE AVE PO BOX 700	FRANKLIN	PENDLETON
59	RIVER MOUNTAIN RETREAT	UNKNOWN	RUDDLE	PENDLETON
60	ALLEGHENY POWER-FRANKLIN SERVICE CTR	205 MILL RD	FRANKLIN	PENDLETON
61	TROUT ROCK COURT	BOX 867	FRANKLIN	PENDLETON
62	MILLER SITE DEV. AND BORROW SI	UNKNOWN	PETERSBURG	GRANT
63	ROCKY PINE FARMS, LLC	DAHMER GAP ROAD	FRANKLIN	PENDLETON
64	PENDLETON COUNTY STONE QUARRY	UNKNOWN	FRANKLIN	PENDLETON

65 WV BROADBAND GRANT #2672 (12 T	UNKNOWN	FRANKLIN	PENDLETON
66 HUNTING GROUND 911 TOWER SITE	UNKNOWN	CHERRY GROVE	MORGAN
67 WOODSEDGE MHP	RT 33	SENECA ROCKS	PENDLETON
68 FISHER MOUNTAIN WWTP	COUNTY ROUTE 12	FRANKLIN	PENDLETON
69 UPPER TRACT	UPPER TRACT	UPPER TRACT	PENDLETON
70 POTOMAC VALLEY DRY CLEANERS	41 N MAIN ST	FRANKLIN	PENDLETON
71 SPRING CREEK RENOVATIN & S	UNKNOWN	PETERSBURG	GRANT
72 PENDLETON BUSINESS CTR	100 THORN CREEK ROAD	FRANKLIN	PENDLETON
73 SUGAR GROVE ESTATES	UNKNOWN	FRANKLIN	PENDLETON
74 FRANKLIN TOWN OF	LEE DR	FRANKLIN	PENDLETON
75 WARNER ANNEX	201 HIGH STREET	FRANKLIN	PENDLETON
76 SENECA CREEK BRIDGE REPLACEMEN	UNKNOWN	ONEGO, WV	PENDLETON
77 FISHER MOUNTAIN	TROUBLESOME VALLEY RD, CR 12	FRANKLIN	PENDLETON
78 MOATSTOWN BORROW SITE	UNKNOWN	FRANKLIN	PENDLETON
79 FISHER MOUNTAIN - WATER SYSTEM	WV SECONDARY ROUTE 12	FRANKLIN	PENDLETON
80 RUDDLE FARM SERVICE	RTE 33 EAST	FRANKLIN	PENDLETON
81 HINKLE CAR WASH	RT 33 WEST	SENECA ROCKS	PENDLETON
82 HINKLE TRUCKING COMPANY	P.O. BOX 65	CIRCLEVILLE	PENDLETON
83 FIFTH BRIDGE S336-8-8.34	COUNTY ROUTE 8	UPPER TRACT	PENDLETON
84 2ND SMITH CREEK BRIDGE, S336-1	UNKNOWN	FRANKLIN, WV	PENDLETON
85 PENDELTON COUNTY MIDDLE/HIGH SCHOOL	147 MAPLE AVENUE	FRANKLIN	PENDLETON
86 UPPER TRACT WTP	UNKNOWN	UNKNOWN	PENDLETON
87 ONEGO BRIDGE BORROW AREA	UNKNOWN	SENECA ROCKS	PENDLETON
88 RIVERTON FACILITY	GERMANY VALLEY ROAD	RIVERTON	PENDLETON
89 ADVANTAGE FOODS	PO BOX 247	PETERSBURG	GRANT
90 FISHER MOUNTAIN	CR 12, TROUBLESOME VALLEY ROAD	FRANKLIN	PENDLETON
91 JUDY GAP SALT SHED & STORA	US ROUTE 33 EAST	RIVERTON	PENDLETON
92 YOKUM/COLUMBIA GAS TRANS NATUR	UNKNOWN	SENECA ROCKS	PENDLETON
93 WASTE WATER TREATMENT & ST	OFF WV RT 42 & 28	PETERSBURG	GRANT
94 HOTT DISPOSAL SERVICES INC.	435 KEYSER AVENUE	PETERSBURG	GRANT
95 WILLIAM R. WARNER JR. TRUCKING	P.O. BOX 206	CIRCLEVILLE	PENDLETON
96 BLACKHORN CREEK	UNKNOWN	MOYERS	PENDLETON
97 POTOMAC ADMINISTRATIVE SITE	HC 59 BOX 240	PETERSBURG	GRANT

98	SENECA SHADOWS CAMPGROUND WAST	US ROUTE 33/WV ROUTE 28	SENECA ROCKS
99	RIVERTON WATER SYSTEM	UNKNOWN	RIVERTON
100	CUS CUT WOOD PROD	ROUTE 33 WEST	FRANKLIN

RANDOLPH	
PENDLETON	
PENDLETON	

VIRGINIA BORDER REGULATED PCS

OBJECTID	PRIMARY_NAME	LOCATION_ADDRESS
1	ROCKBRIDGE STONE PRODUCTS INC - PORTABLE	1070 WHITES RUN ROAD
2	MONTEREY, TOWN OF	ROUTE 1005, 0.3 MILE NE OF MON
3	VIRGINIA TROUT - MONTEREY	5480 POTOMAC RIVER RD
4	VA DEPT OF TRANSPORTATION (MONTERARY)	FLEISHER AVE
5	RECORDER PUBLISHING OF VA INC	3 WATER ST
6	ALL CONSTRUCTION INC	LAUREL FORK (HIGHLAND COUNTY)
7	HINER'S AUTO SERVICE	63 W. MAIN STREET

VOLUNTARY REMEDIATION PROGRAM

OBJECTID	x	y	proj_id	proj_name	fac_name
1	645401.7802	4278892.22	817	Hartman's Franklin (VRP 04412)	(WITHDRAWN)

APPENDIX B. EARLY WARNING MONITORING SYSTEM FORMS

Select and Attach the Appropriate Form for Your System

Form A - Complete if you currently have an early warning monitoring system for a groundwater source.

Form B - Complete if you currently have an early warning monitoring system installed for a surface water source.

Form C - If you do not currently have an early warning monitoring system installed for a surface water intake or are planning to upgrade or replace your current system, complete this form.

Form D - If you do not currently have an early warning monitoring system installed for a groundwater source or are planning to upgrade or replace your current system, complete this form.

Note: You may need to fill out and attach more than one form to your Protection Plan, depending on your current situation.

Appendix B - Form B
Proposed Ground Monitoring Worksheet

Describe the type of early warning detection equipment that could be installed, including design:
Multi-parameter Universal Controller with the capability of monitoring several different parameters. The controller is mounted on a panel that also serves as a trough. A separate pump is necessary to pump the raw water to and through the trough. The trough is capable of receiving up to 6 different probe sensors that can monitor parameters such as: Oil and gas, pH, temperature, conductivity, DO, turbidity, nitrates, ammonium, or organics. The controller would be programmed to alarm the operators through the existing telemetry when any of the monitored parameters got above a certain point.
Where would the equipment be located?:
The equipment would be mounted, out of the weather, at the control panel located above the raw water intake along the South Branch of the Potomac.
What would the maintenance plan for the monitoring equipment entail?:
Daily checkup of the monitoring equipment. The probe/sensors can be unscrewed from the trough and wiped down as needed. The trough can also be wiped out or flushed as needed.
Describe the proposed sampling plan at the monitoring site:
Water would be drawn directly from South Branch of the Potomac to the panel/trough with a single tap for a drain line. The controller would be continuously monitoring the water through the trough based on the probes mentioned above. If a parameter would go beyond the acceptable limits, the telemetry would alarm the Operators who in turn could shut down the intake before any contaminated water could reach the plant.
Describe the proposed procedures for data management and analysis:
The data gathered during the continuous monitoring could be added to the existing telemetry (SCADA) system. The telemetry would time stamp the information received and create a trending line graph for each parameter. The graph would be based on the time of sample and level. This would allow the District to see a base line and any changes that occur on a daily basis.

APPENDIX C. COMMUNICATION PLAN TEMPLATE

Petersburg Town Of

PWSID: WV3301204

Authorizing Signature: Robert Spanswick

Contact Phone Number: (304)668-2056

Contact Email Address: ras@forthillmotel

Plan Developed On: August 2021

ACKNOWLEDGMENTS:

This plan was developed by [insert name, title of person completing plan, and who they work for] to meet certain requirements of the Source Water and Assessment Protection Program (SWAPP) and the Wellhead Protection Program (WHPP) for the State of West Virginia, as directed by the federal Safe Drinking Water Act (SDWA) and state laws and regulations.

INTRODUCTION

Legislative Rule 64CSR3 requires public water systems to develop a Communication Plan that documents how public water suppliers, working in concert with state and local emergency response agencies, shall notify state and local health agencies and the public in the event of a spill or contamination event that poses a potential threat to public health and safety. The plan must indicate how the public water supplier will provide updated information, with an initial notification to the public to occur no later than thirty minutes after the supplier becomes aware that the spill, release or potential contamination of the public water system poses a potential threat to public health and safety.

The public water system has responsibility to communicate to the public, as well as to state and local health agencies. This plan is intended to comply with the requirements of Legislative Rule 64CSR3, and other state and federal regulations.

TIERS REPORTING SYSTEM

This water system has elected to use the Tiered Incident / Event Reporting System (TIERS) for communicating with the public, agencies, the media, and other entities in the event of a spill or other incident that may threaten water quality. TIERS provides a multi-level notification framework, which escalates the communicated threat level commensurate with the drinking water system risks associated with a particular contamination incident or event. TIERS also includes a procedural flow chart illustrating key incident response communication functions and how they interface with overall event response / incident management actions. Finally, TIERS identifies the roles and responsibilities for key people involved in risk response, public notification, news media and other communication.

TIERS provides an easy-to-remember five-tiered **A-B-C-D-E** risk-based incident response communication format, as described below. Table 1 provides also associated risk levels.

A = Announcement. The water system is issuing an announcement to the public and public agencies about an incident or event that may pose a threat to water quality. Additional information will be provided as it becomes available. As always, if water system customers notice anything unusual about their water, they should contact the water system.

B = Boil Water Advisory. A boil water advisory has been issued by the water system. Customers may use the water for showering, bathing, and other non-potable uses, but should boil water used for drinking or cooking.

C = Cannot Drink. The water system asks that users not drink or cook with the water at this time. Non-potable uses, such as showering, bathing, cleaning, and outdoor uses are not affected.

D = Do Not Use. An incident or event has occurred affecting nearly all uses of the water. Do not use the water for drinking, cooking, showering, bathing, cleaning, or other tasks where water can come in contact with your skin. Water can be used for flushing commodes and fire protection.

E = Emergency. Water cannot be used for any reason.

Tier	Tier Category	Risk Level	Tier Summary
A	Announcement	Low	The water system is issuing an announcement to the public and public agencies about an incident or event that could pose a threat to public health and safety. Additional information will be provided as it becomes available.
B	Boil Water Advisory	Moderate	Water system users are advised to boil any water to be used for drinking or cooking, due to possible microbial contamination. The system operator will notify users when the boil water advisory is lifted.
C	Cannot Drink	High	System users should not drink or cook with the water until further notice. The water can still be used for showering, bathing, cleaning, and other tasks.
D	Do Not Use	Very High	The water should only be used for flushing commodes and fire protection until further notice. More information on this notice will be provided as soon as it is available.
E	Emergency	Extremely High	The water should not be used for any purpose until further notice. More information on this notice will be provided as soon as it is available.

COMMUNICATION TEAM

The Communication Team for the water system is listed in the table below, along with key roles. In the event of a spill or other incident that may affect water quality, the water system spokesperson will provide initial information, until the team assembles (if necessary) to provide follow-up communication

Water system communication team members, organizations, and roles.

Team Member Name	Organization	Phone	Email
Robert Spanswick	Petersburg Town Of	(304)668-2056	ras@forthillmotel
Frank Sharp	Petersburg Town Of	(304)257-4877	pburgwater@frontiernet.net

In the event of a spill, release, or other incident that may threaten water quality, members of the team who are available will coordinate with the management staff of the local water supplier to:

- Collect information needed to investigate, analyze, and characterize the incident/event
- Provide information to the management staff, so they can decide how to respond
- Assist the management staff in handling event response and communication duties
- Coordinate fully and seamlessly with the management staff to ensure response effectiveness

COMMUNICATION TEAM DUTIES

The communication team will be responsible for working cooperatively with the management staff and state and local emergency response agencies to notify local health agencies and the public of the initial spill or contamination event. The team will also provide updated information related to any contamination or impairment of the source water supply or the system's drinking water supply.

According to Legislative Rule 64CSR3, the initial notification to the public will occur no later than thirty minutes after the public water system becomes aware that the spill, release or potential contamination of the public water system poses a potential threat to public health and safety.

As part of the group implementing the Source Water Protection Plan, team members are expected to be familiar with the plan, including incident/event response and communication tasks. Specifically, team members should:

- Be knowledgeable on elements of the Source Water Protection Plan and Communication Plan
- Attend team meetings to ensure up-to-date knowledge of the system and its functions
- Participate in periodic exercises that "game out" incident response and communication tasks
- Help to educate local officials, the media, and others on source water protection
- Cooperate with water supplier efforts to coordinate incident response communication
- Be prepared to respond to requests for field investigations of reported incidents
- Not speak on behalf of the water supplier unless designated as the system's spokesperson

The primary spokesperson will be responsible for speaking on behalf of the water system to local agencies, the public, and the news media. The spokesperson should work with the management staff and the team to ensure that all communication is clear, accurate, timely, and consistent. The spokesperson may authorize and/or direct others to issue news releases or other information that has been approved by the system's management staff. The spokesperson is expected to be on call immediately when an incident or event which may threaten water quality occurs. The spokesperson will perform the following tasks in the event of a spill, release, or other event that threatens water quality:

- Announce which risk level (A, B, C, D, or E) will apply to the public notifications that are issued
- Issue news releases, updates, and other information regarding the incident/event
- Use the news media, email, social media, and other appropriate information venues
- Ensure that news releases are sent to local health agencies and the public
- Respond to questions from the news media and others regarding the incident/event
- Appear at news conferences and interviews to explain incident response, etc.

INCIDENT / EVENT COMMUNICATION PROCEDURE

The flow chart in this section illustrates how the water system will respond when it receives a report that a spill, release, or other contamination event may have occurred. Key elements of the flow chart are described below.

Communication with agencies, the public, and the media during threat incidents

Upon initial notification of the incident/event, system managers and staff will collect information and verify the need for further investigation. Only properly trained personnel will perform onsite investigations if permitted by emergency responders. If further investigation is warranted, and the initial facts support it, the water system spokesperson will issue a public communication statement consistent with the threat level. In addition, water system personnel and partners will be dispatched to conduct reconnaissance, a threat assessment, and a threat characterization, if present. This work may include:

- Verification of the incident/event type (spill, release, etc.)
- Location of incident/event
- Type of material(s) involved in spill, release, etc.
- Quantity of material involved
- Potential of the material to move, migrate, or be transported
- Relevant time factor(s) in the risk assessment (e.g., downstream movement rate)
- Overall level of risk to water system, whether low, moderate, high, or very high
- Development of the initial risk characterization

As the flow chart indicates, several iterative cycles will occur after the initial threat assessment, including communication with local agencies and the public, further investigation of the incident, possible implementation of

the water system's contingency plan, and eventual elimination of the threat and a return to normal operations. Communication activities during this period will include:

- The initial release (i.e., Announcement, Boil Water Advisory, Cannot Drink, Do Not Use, or Emergency)
  - Sent to local health agencies, the public, and the news media within 30 minutes
- Notification of the local water system's source water protection and communication teams
  - If warranted by initial findings regarding the spill, release, or incident
- Notification of the WV Bureau of Public Health
  - As required
- Periodic information updates, as incident response information is received
- Updates to the applicable A-B-C-D-E advisory tier, as necessary

If time permits and the need arises, after the threat level is reduced, and operations return to normal, the water system staff, the communication and source water protection teams, and their partners may conduct a post-event review and assessment. The purpose of the review is to examine the response to the incident, relevant communication activities, and overall outcomes. Plans and procedures may be updated, altered, or adapted based on lessons learned through this process.

EMERGENCY SHORT FORMS

Emergency Communication Information

	Name	Phone	Email
Designated spokesperson:	Robert Spanswick	(304)668-2056	ras@forthillmotel
Alternate spokesperson:	Frank Sharp	(304)257-4877	pburgwater@frontiernet.net
Designated location to disseminate information to media:	City Hall 21 Mount View Street Petersburg, WV 26847		
Method of Contact:	radio newspaper		

Media Contacts:	Name	Title	Phone Number	Email
	103.7		(304)538-6062	

Emergency Service Contacts

	Name	Emergency Phone	Alternative Phone	Email
Police	Petersburg Police Department	(911)___-____		
Fire	Petersburg VFD	(911)___-____		
Ambulance	Grant County Ambulance Service	(911)___-____		
Hazmat	Petersburg VFD	(911)___-____		
Other				
Other				
Other				

Sensitive Populations

Other Communities that are served by the Utility:	Grant County PSD			
Major User/Sensitive Population Notification	Name	Emergency Phone	Alternative Phone	Email
	GCPSD – Laurie	(304)257-2377		
	Grant County Nursing Home	(304)257-4233		
	Grant County Memorial Hospital	(304)257-1026		
	Petersburg High & Grade School	(304)257-1444		
	(3) Child Care Facilities			
	Maysville Grade School			
	Grant County Senior Center			
EED District Office Contact	Name	Phone	Email	
	Alan Marchun	(304)641-8727	alan.f.marchun@wv.gov	
OEHS Readiness Coordinator	Lee Orr	(304)356-4290		

Downstream Water System Contacts	Water System Name	Contact Name	Emergency Phone	Alternate Phone	Email
	Town of Moorefield	Delmas See	(304)851-2284		d.see@townofmoorefield.com
Are you planning on implementing the TIER Communications plan?:	Yes				

Emergency Service Key Staff Members

	Name	Title	Phone	Email
Key Staff Responsible for Coordinating Emergency Response Rrocedures:	Frank Sharp	City of Petersburg Chief Water Operator	(304)257-4877	pburgwater@frontier net.net
Staff Responsible for Keeping Confidential PSSC Information and Releasing to Emergency Responders.	Frank Sharp	City of Petersburg Chief Water Operator	(304)257-4877	pburgwater@frontier net.net

Emergency Response Information

List Laboratories available to perform sample analysis in case of emergency.	Name	Phone
	REIC	(304)241-5861
	WVDHHR	(304)725-9453
Has utility developed a detailed Emergency Response Plan in accordance with the Public Health Security Bioterrorism preparedness and Response Plan Act of 2002 that covers the following areas?:		Yes
When was the emergency response plan developed or last updated?:		2016

EMERGENCY CONTACT INFORMATION

State Emergency Spill Notification

1-800-642-3074

Office of Emergency Services

http://www.wvdhsem.gov/

Charleston, WV- (304) 558-5380

WV Bureau for Public Health Office of Environmental Health Services (OEHS)

www.wvdhhr.org/oehs

Readiness Coordinator - Lee Orr

Phone: 304-356-4290

Cell: 304-550-5607

E-mail: Lee.E.Orr@wv.gov

Environmental Engineering Division Staff

Charleston, Central Office (304) 558-2981

Beckley, District 1 (304) 256-6666

St. Albans, District 2 (304) 722-0611

Kearneysville, District 4 (304) 725-9453

Wheeling, District 5 (304) 238-1145

Fairmont, District 6 (304) 368-2530

National Response Center - Chemical, Oil, & Chemical/Biological Terrorism

1-800-424-8802

WV State Fire Marshal's Office

1-800-233-3473

West Virginia State Police

1-304-746-2100

WV Watch – Report Suspicious Activity

1-866-989-2824

DEP Distance Calculator

http://tagis.dep.wv.gov/pswicheck/

PRESS RELEASE ATTACHMENTS

TIERS Levels A, B, C, D, and E

UTILITY ISSUED NOTICE – LEVEL A

PUBLIC WATER SYSTEM ANNOUNCEMENT

A WATER SYSTEM INVESTIGATION IS UNDERWAY

On _____ at ___:____ AM/PM, the _____ Water System began investigating an incident that may affect local water quality.

The incident involves the following situation at this location:

_____

_____

_____

There are no restrictions on water use at this time. As always, if water system customers notice anything unusual about their water – such as abnormal odors, colors, sheen, etc. – they should contact the water system at _____.

At this time there is no need for concern if you have consumed or used the water.

Regular updates will be provided about this Announcement as water system staff continue their investigation. Again, there are no restrictions on water use at this time.

State Water System ID# _____ Date Distributed: _____

UTILITY ISSUED NOTICE – LEVEL B

BOIL WATER ADVISORY

A BOIL WATER ADVISORY IS IN EFFECT

On _____ at ___:____ am/pm, a water problem occurred causing contamination of your water. The areas that are affected are as follows:

□ Entire Water System or □ Other: _____

_____

CONDITIONS INDICATE THERE IS A HIGH PROBABILITY THAT YOUR WATER IS CONTAMINATED. TESTING HAS NOT OCCURRED TO CONFIRM OR DENY THE PRESENCE OF CONTAMINATION IN YOUR WATER.

What should I do?

- **DO NOT DRINK THE WATER WITHOUT BOILING IT FIRST.** Bring all water to a boil, let it boil for one minute, and let it cool before using, or use bottled water. Boiled or bottled water should be used for drinking, making ice, brushing teeth, washing dishes, bathing, and food preparation until further notice. Boiling kills bacteria and other organisms in the water.

What happened?

- **The problem is related to** _____

What is being done?

- **The water system is taking the following action:** _____

  _____

What should a customer do if they have consumed or used the water?

- _____

We will inform you when you no longer need to boil your water. We anticipate resolving the problem within _____ hours/days. For more information, please contact _____ at _____ or _____ at _____.

General guidelines on ways to lessen the health risk are available from the EPA Safe Drinking Water Hotline at 1 (800) 426-4791.

Please share this information others who use this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice was distributed by _____

State Water System ID# _____ Date Distributed: _____

UTILITY ISSUED NOTICE – LEVEL C

"CANNOT DRINK" WATER NOTIFICATION

A LEVEL C WATER ADVISORY IS IN EFFECT

On _____ at ___:____ am/pm, a water problem occurred causing contamination of your water. The areas that are affected are as follows:

□ Entire Water System or □ Other: _____

_____

CONDITIONS INDICATE THERE IS A HIGH PROBABILITY THAT YOUR WATER IS CONTAMINATED. TESTING HAS NOT OCCURRED TO CONFIRM OR DENY THE PRESENCE OF CONTAMINATION IN YOUR WATER.

What should I do?

- **DO NOT DRINK THE WATER.** You can't drink the water, but you can use it for showering, bathing, toilet-flushing, and other non-potable purposes.
- **BOILING WILL NOT PURIFY THE WATER.** Do not drink the water, even if it is boiled.

What happened?

- **The problem is related to** _____

What is being done?

- **The water system is taking the following action:** _____

  _____

What should a customer do if they have consumed or used the water?

- _____

We will inform you when the water is safe to drink. We anticipate resolving the problem within _____ hours/days. For more information – or to report unusual water conditions such as abnormal odors, colors, sheen, etc. – please contact _____ at _____ or _____ at _____.

General guidelines on ways to lessen the health risk are available from the EPA Safe Drinking Water Hotline at 1 (800) 426-4791.

Please share this information others who use this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice was distributed by _____

State Water System ID# _____ Date Distributed: _____

UTILITY ISSUED NOTICE – LEVEL D

"DO NOT USE" WATER NOTIFICATION

A LEVEL D WATER ADVISORY IS IN EFFECT

On _____ at ___:____ am/pm, a water problem occurred causing contamination of your water. The areas that are affected are as follows:

□ Entire Water System or □ Other: _____

_____

CONDITIONS INDICATE THERE IS A HIGH PROBABILITY THAT YOUR WATER IS CONTAMINATED. TESTING HAS NOT OCCURRED TO CONFIRM OR DENY THE PRESENCE OF CONTAMINATION IN YOUR WATER.

What should I do?

- **DO NOT DRINK THE WATER.** The water is contaminated.
- **DO NOT SHOWER OR BATHE IN THE WATER.** You can't use the water for drinking, showering, or bathing. It can be used for toilet flushing and firefighting.
- **BOILING WILL NOT PURIFY THE WATER.** Do not use the water, even if it is boiled. The type of contamination suspected is not removed by boiling.

What happened?

- **The problem is related to** _____

What is being done?

- **The water system is taking the following action:** _____

  _____

What should a customer do if they have consumed or used the water?

- _____

We will inform you when the water is safe to drink. We anticipate resolving the problem within _____ hours/days. For more information – or to report unusual water conditions such as abnormal odors, colors, sheen, etc. – please contact _____ at _____ or _____ at _____.

Please share this information others who use this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice was distributed by _____

State Water System ID# _____ Date Distributed: _____

UTILITY ISSUED NOTICE – LEVEL E

EMERGENCY WATER NOTIFICATION

A LEVEL E WATER ADVISORY IS IN EFFECT

On _____ at ___:____ am/pm, a water problem occurred causing contamination of your water. The areas that are affected are as follows:

□ Entire Water System or □ Other: _____

_____

CONDITIONS INDICATE THERE IS A HIGH PROBABILITY THAT YOUR WATER IS CONTAMINATED. TESTING HAS NOT OCCURRED TO CONFIRM OR DENY THE PRESENCE OF CONTAMINATION IN YOUR WATER.

What should I do?

- **DO NOT DRINK THE WATER.** The water is contaminated.
- **DO NOT USE THE WATER FOR ANY PURPOSE!** You can't use the water for drinking, showering, or bathing, or any other use – not even for toilet flushing.
- **BOILING WILL NOT PURIFY THE WATER.** Do not use the water, even if it is boiled. The type of contamination suspected is not removed by boiling.

What happened?

- **The problem is related to** _____

What is being done?

- **The water system is taking the following action:** _____

  _____

What should a customer do if they have consumed or used the water?

- _____

We will inform you when the water is safe to drink. We anticipate resolving the problem within _____ hours/days. For more information – or to report unusual water conditions such as abnormal odors, olors, sheen, etc. – please contact _____ at _____ or _____ at _____.

Please share this information others who use this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice was distributed by _____

State Water System ID# _____ Date Distributed: _____

APPENDIX D. SINGLE SOURCE FEASIBILITY

Water Source Alternative:

Back up intake	
Name of Alternative:	South Branch of the Potomac River
Brief Description of the Alternative:	South Branch of the Potomac River
Feasible?:	Yes
Provide Cost Estimate:	$217,500
Would this alternative supply 100% of your needs?:	No
Economic Criteria - Operation and Maintenance Costs:	3
Economic Criteria - Capital Cost:	3
Technical Criteria - Permitting:	3
Technical Criteria - Flexibility:	3
Technical Criteria - Resilience:	3
Technical Criteria - Institutional Requirements:	3
Environmental Criteria - Environmental Impacts:	3
Environmental Criteria - Aesthetic Impacts:	3
Environmental Criteria - Stakeholder Issues:	0
Final Score:	93.33%
Interconnection	
Name of Alternative:	Interconnection
Brief Description of the Alternative:	Interconnection
Feasible?:	No
Provide Cost Estimate:	$0
Would this alternative supply 100% of your needs?:	No
Economic Criteria - Operation and Maintenance Costs:	0
Economic Criteria - Capital Cost:	0
Technical Criteria - Permitting:	0
Technical Criteria - Flexibility:	0
Technical Criteria - Resilience:	0
Technical Criteria - Institutional Requirements:	0
Environmental Criteria - Environmental Impacts:	0
Environmental Criteria - Aesthetic Impacts:	0
Environmental Criteria - Stakeholder Issues:	0
Final Score:	0.00%
Treated water storage	
Name of Alternative:	Treated water storage

Brief Description of the Alternative:	Treated water storage
Feasible?:	Yes
Provide Cost Estimate:	$0
Would this alternative supply 100% of your needs?:	No
Economic Criteria - Operation and Maintenance Costs:	3
Economic Criteria - Capital Cost:	3
Technical Criteria - Permitting:	3
Technical Criteria - Flexibility:	3
Technical Criteria - Resilience:	3
Technical Criteria - Institutional Requirements:	3
Environmental Criteria - Environmental Impacts:	3
Environmental Criteria - Aesthetic Impacts:	3
Environmental Criteria - Stakeholder Issues:	0
Final Score:	93.33%
Tank for Raw Water Storage	
Name of Alternative:	Raw Water Storage
Brief Description of the Alternative:	Raw Water Storage
Feasible?:	Yes
Provide Cost Estimate:	$0
Would this alternative supply 100% of your needs?:	No
Economic Criteria - Operation and Maintenance Costs:	3
Economic Criteria - Capital Cost:	2
Technical Criteria - Permitting:	3
Technical Criteria - Flexibility:	3
Technical Criteria - Resilience:	3
Technical Criteria - Institutional Requirements:	0
Environmental Criteria - Environmental Impacts:	3
Environmental Criteria - Aesthetic Impacts:	3
Environmental Criteria - Stakeholder Issues:	0
Final Score:	74.67%

Feasibility Study Narrative

Do you serve more than 100,000 customers? If so, please describe the methods you use to monitor at the same technical levels utilized by ORSANCO.	NO

Note: Complete appropriate Early Warning Monitoring form for your system in Appendix B (Line 71).

Single Source Feasibility Study

If a public water utility's water supply plant is served by a single–source intake to a surface water source of supply or a surface water influenced source of supply, the submitted source water protection plan must also include an examination and analysis of the technical and economic feasibility of alternative sources of water to provide continued safe and reliable public water service in the event that its primary source of supply is detrimentally affected by contamination, release, spill event or other reason. These alternatives may include a secondary intake, two days of additional raw or treated water storage, an interconnection with neighboring systems, or other options identified on a local level. Note: a suitable secondary intake would draw water supplies from a substantially different location or water source.

To accomplish this requirement, utilities should examine all existing or possible alternatives and rank them by their technical, economic, and environmental feasibility. To have a consistent and complete method for ranking alternatives, WVBPH has developed a feasibility study guide. This guide provides several criteria to consider for each category, organized in a Feasibility Study Matrix. By completing the Feasibility Study Matrix, utilities will demonstrate the process used to examine the feasibility of each alternative and document scores that compare the alternatives. The Feasibility Study matrix and summary of the results are presented in an alternatives feasibility study attached as **Appendix D**.

Communication Plan

City of Petersburg has also developed a Communication Plan that documents the manner in which the public water utility, working in concert with state and local emergency response agencies, shall notify the local health agencies and the public of the initial spill or contamination event and provide updated information related to any contamination or impairment of the source water supply or the system's drinking water supply. The initial notification to the public will occur in any event no later than thirty minutes after the public water system becomes aware of the spill, release, or potential contamination of the public water system. A copy of the source water protection plan and the Communication Plan has been provided to the local fire department. City of Petersburg will update the Communication Plan as needed to ensure contact information is up to date.

Procedures should be in place for the kinds of catastrophic spills that can reasonably be predicted at the source location or within the SWPA. The chain-of-command, notification procedures and response actions should be known by all water system employees.

The WVBPH has developed a recommended communication plan template that provides a tiered incident communication process to provide a universal system of alert levels to utilities and water system managers. The comprehensive Communication Plan for City of Petersburg is attached as **Appendix C** for internal review and planning purposes only.

The West Virginia Department of Environmental Protection is capable of providing expertise and assistance related to prevention, containment, and clean-up of chemical spills. The West Virginia Department of

Appendix E. Feasibility Study Narrative

Backup Intake – City of Petersburg receives raw water from the South Branch of the Potomac River from one (1) primary intake. The City has a second/backup intake that is currently not operational. Flooding has silted over the intake pipe. Operation and Maintenance costs along with Capitol costs are estimated based on installing a new intake structure and utilizing the existing wetwell to pump to the Water Treatment Plant (WTP). The backup intake draws from the same source water, the South Branch of the Potomac River. Wells were reviewed and found not to be a viable source.

Interconnect – City of Petersburg sells water to the Grant County PSD in all directions out of the City. There is no viable interconnection available to the City of Petersburg to receive water. Mountain Top PSD is the closest District to the North with its own water source. It is not feasible to bring water from Mountain Top PSD to the City of Petersburg for distribution. The Town of Moorefield is located to the east. It is in the same situation as Mountain Top PSD. It is not feasible to bring water in from the Town of Moorefield. Pendleton County PSD Upper Tract and Riverton are located to the South and West respectively. Neither of these systems is capable of providing water to the City of Petersburg.

Treated Water Storage – City of Petersburg currently has 2.531 Million Gallons of treated water storage capacity within three (3) storage tanks and the Clearwell. The storage tanks include a 354,000 gallon tank constructed in 1960 and repainted in 2010, a 436,000 gallon tank constructed in 1997 and repainted in 2010, and a 1.5 Million gallon tank constructed in 2010. The clearwell has a capacity of 241,000 gallons. Yearly average daily production is 808,860 gallons. The existing storage capacity provides for approximately 3.13 days. Peak Months (July – September) has a daily average of roughly 980,000 to 1 Million gallons per day (2.5+ days storage). Maximum water production for the City was 1,286,300 gallons. This results in a storage capacity of 1.97 days. This meets the 2 day storage capacity and additional treated water storage will not be reviewed further.

Raw Water Storage – City of Petersburg currently has two (2) clarifier tanks with a capacity of 322,000 gallons each. A 500,000 gallon Raw Water Storage Tank located at the Water Treatment Plant (WTP) along with the clarifiers would provide the City with an additional day of average operation. This along with the treated water storage capacity provides the City with 3-4+ days of water depending on usage. The Raw Water Storage Tank would require modifications to the existing piping infrastructure at the plant along with a pump station to move water from the Tank to the clarifiers.

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Matrix Document

Feasibility Matrix | City of Petersburg | PWSID: 3301204 | Jan-16 | Matrix Completed By: Cerrone Associates, Inc.

Criteria	Question	Backup Intake	Feasibility	Interconnect	Feasibility	Treated Water Storage	Feasibility	Raw Water Storage	Feasibility	Other-(Name of Alternative)	Feasibility
Economic Criteria											
What is the total current budget year cost to operate and maintain the PWSU (current budget year)?		$481,492.00		$481,492.00		$481,492.00		$481,492.00		$481,492.00	
O and M Costs	Describe the major O&M cost requirements for the alternative?	Operation and Maintenance include cleaning the intake structure	3	There is no viable interconnection	0	No additional costs since the City has the required storage capacity	3	Booster Station, Tank, and line connetion.	2	[Describe]	0
	What is the incremental cost ($/gal) to operate and maintain the alternative?	$3,000.00	3	$0.00	0	$0.00	3	$21,222.00	3	$0.00	0
	Cost comparison of the incremental O&M cost to the current budgeted costs (%)	0.62%	3	0.00%	0	0.00%	3	4.41%	3	0.00%	0
O and M-Feasibility Score			*3.0*		*0.0*		*3.0*		*2.7*		*0.0*
Describe the capital improvements required to implement the alternative.		Replace the existing gravity fed intake pipe with new screen		N/A		No improvements needed. Project in 2010 increased capacity to meet 2 day storage at max production.		New Booster Station, Raw Water Tank, and piping between intake and Clarifiers.		[Describe]	
Capital Costs	What is the total capital cost for the alternative?	$217,500.00	3	$0.00	0	$0.00	3	$1,268,750.00	2	$0.00	0
	What is the annualized capital cost to implement the alternative, including land and easement costs, convenience tap fees, etc. ($/gal)	$10,273.00	3	$0.00	0	$0.00	3	$59,924.00	2	$0.00	0
	Cost comparison of the alternatives annualized capital cost to the current budgeted costs (%)	2.13%	3	0.00%	0	0.00%	3	12.45%	2	0.00%	0
Capital Cost-Feasibility Score			*3.0*		*0.0*		*3.0*		*2.0*		*0.0*
Technical Criteria											
Permitting	Provide a listing of the expected permits required and the permitting agencies involved in their approval.	Health Permit - WVBPH; Public Lands - WVDNR - Stream Activity - USACE	3	N/A	0	None required	3	Health Permit - WVBPH	3	>[List and Describe]	0
	What is the timeframe for permit approval for each permit?	Health Permit - 30 days; Public Lands - 30 days; Stream Activity - 6 months	3	>[List the timeframe for approval for each permit listed above]	0	N/A	3	Health Permit - 30 days	3	>[List the timeframe for approval for each permit listed above]	0
	Describe the major requirements in obtaining the permits (environmental impact studies, public hearings, etc.)	Detailed design and Construction Drawings	3	>[Describe all major requirements for approval for the listed permits]	0	N/A	3	Detailed design and Construction Drawings	3	>[Describe all major requirements for approval for the listed permits]	0
	What is the likelihood of successfully obtaining the permits?	Very likely	3	[Describe]	0	N/A	3	Very Likely	3	[Describe]	0
	Does the implementation of the alternative require regulatory exceptions or variances?	None Expected	3	[Yes/No:Describe]	0	No	3	No	3	[Yes/No:Describe]	0
Permitting-Feasibility Score			*3.0*		*0.0*		*3.0*		*3.0*		*0.0*
Flexibility	Will the alternative be needed on a regular basis or only used intermittently?	Intermittenly	3	N/A	0	N/A	3	Regular - it would be part of the treatment process	3	[Describe]	0
	How will implementing the alternative affect the PWSU's current method of treating and delivering potable water including meeting Safe Drinking Water Act regulations? (ex. In the case of storage, will the alternative increase the likelihood of disinfection byproducts?)	No	3	[Describe]	0	N/A	3	It would provide an additional step in the treatment process - going from intake to Raw Water Tank to Clarifiers instead of intake directly to clarifiers.	3	[Describe]	0
Flexibility-Feasibility Score			*3.0*		*0.0*		*3.0*		*3.0*		*0.0*
Resilience	Will the alternative provide any advantages or disadvantages to meeting seasonal changes in demand?	None Expected	3	[Yes/No]	0	N/A	3	No	3	[Yes/No]	0
	How resistant will the alternative be to extreme weather conditions such as drought and flooding?	Same as existing	3	[Yes/No]	0	N/A	3	No different than any of the existing tanks at the WTP	3	[Yes/No]	0

Criteria	Question	Backup Intake	Feasibility	Interconnect	Feasibility	Treated Water Storage	Feasibility	Raw Water Storage	Feasibility	Other-(Name of Alternative)	Feasibility
	Will the alternative be expandable to meet the growing needs of the service area?	Sized to meet expected growth	3	[Describe]	0	N/A	3	Sized to meet current demands - no known growth expected	3	[Describe]	0
Resilience-Feasibility Score			*3.0*		*0.0*		*3.0*		*3.0*		*0.0*
Institutional Requirements	Identify any agreements or other legal instruments with governmental entities, private institutions or other PWSU required to implement the alternative.	None Expected	3	N/A	0	N/A	3	[Describe]	0	[Describe]	0
	Are any development/planning restrictions in place that can act as a barrier to the implementation of the alternative.	None Expected	3	[Yes/No]	0	N/A	3	[Yes/No]	0	[Yes/No]	0
	Identify potential land acquisitions and easements requirements.	None Expected	3	[Describe]	0	N/A	3	[Describe]	0	[Describe]	0
Institutional Requirements-Feasibility Score			*3.0*		*0.0*		*3.0*		*0.0*		*0.0*
Environmental Criteria											
Environmental Impacts	Identify any environmentally protected areas or habitats that might be impacted by the alternative.	None Expected	3	N/A	0	N/A	3	None Expected	3	[Describe]	0
Environmental Impacts-Feasibility Score			*3.0*		*0.0*		*3.0*		*3.0*		*0.0*
Aesthetic Impacts	Identify any visual or noise issues caused by the alternative that may affect local land uses?	None Expected	3	N/A	0	N/A	3	None Expected	3	[Describe]	0
	Identify any mitigation measures that will be required to address aesthetic impacts?	None Expected	3	[Describe]	0	N/A	3	None Expected	3	[Describe]	0
Aesthetic Impacts-Feasibility Score			*3.0*		*0.0*		*3.0*		*3.0*		*0.0*
Stakeholder Issues	Identify the potential stakeholders affected by the alternative.	[Describe]	0	[Describe]	0	[Describe]	0	[Describe]	0	[Describe]	0
	Identify the potential issues with stakeholders for and against the alternative.	[Describe]	0	[Describe]	0	[Describe]	0	[Describe]	0	[Describe]	0
	Will stakeholder concerns represent a significant barrier to implementation (or assistance) of the alternative?	[Yes/No]	0	[Yes/No]	0	[Yes/No]	0	[Yes/No]	0	[Yes/No]	0
Stakeholder Issues-Feasibility Score			*0.0*		*0.0*		*0.0*		*0.0*		*0.0*
Comments		Comments		Comments		Comments		Comments		Comments	

Instructions: Using the expanded instructions in the "FEASIBILITY STUDY GUIDANCE DOCUMENT", complete the white and gray input cells. Rank each criteria based on the evidence provided and best professional judgement. Rank the criteria 0-3, assuming 0=not feasible and 3=most feasible. The password to edit fillable cells is "swap".

Scoring:

0 – Not feasible. Criterion cannot be met by this alternative and removes the alternative from further consideration.

1 – Feasible but difficult. Criterion represents a significant barrier to successful implementation but does not eliminate it from consideration.

2 – Feasible. Criterion can be met by the alternative.

3 – Very Feasible. Criterion can be easily met by the alternative

Feasibility Matrix **City of Petersburg** **PWSID: 3301204** **Date: 42370** **Completed By: Cerrone Associates, Inc.**

Alternative Strategy Description	Economic Criteria					Technical Criteria								Environmental Criteria						Final Score	Total Capital Cost	Comments
	Operation and Maintenance Costs	Capital Costs	Total	Total %	Weighted Total	Permitting	Flexibility	Resilience	Institutional Requirements	Total	Total %	Weighted Total	Environmental Impacts	Aesthetic Impacts	Stakeholder Issues	Total	Total %	Weighted Total			
Backup Intake	3.0	3.0	6.0	100.0%	40.0%	3.0	3.0	3.0	3.0	12.0	100.0%	40.0%	3.0	3.0	0.0	6.0	66.7%	13.3%	93.3%	$217,500.0	Comments
Interconnect	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	$0.0	Comments
Treated water storage	3.0	3.0	6.0	100.0%	40.0%	3.0	3.0	3.0	3.0	12.0	100.0%	40.0%	3.0	3.0	0.0	6.0	66.7%	13.3%	93.3%	$0.0	Comments
Raw Water Storage	2.7	2.0	4.7	77.8%	31.1%	3.0	3.0	3.0	0.0	9.0	75.0%	30.0%	3.0	3.0	0.0	6.0	66.7%	13.3%	74.4%	#########	Comments
Other-(Name of Alternative)	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	$0.0	Comments

Scoring:

0 – Not feasible. Criterion cannot be met by this alternative and removes the alternative from further consideration.
1 – Feasible but difficult. Criterion represents a significant barrier to successful implementation but does not eliminate it from consideration.
2 – Feasible. Criterion can be met by the alternative.
3 – Very Feasible. Criterion can be easily met by the alternative

APPENDIX E. SUPPORTING DOCUMENTATION