

Attachment General-2

Table 1.7-1R

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(Revised July 13, 2016)

Agencies with Relevant Major Permit or Consultation Requirements

Agency	Permit/Approval/Consultation	Points of Contact	Notified of Intent to Use Pre-Filing Process	Agency Plans to Participate in Pre-Filing Process	Consultation Initiated	Permit Application Filed	Anticipated Permit or Authorization Receipt Date
Federal							
Federal Energy Regulatory Commission (FERC)	NGA Section 7 Certificate and abandonment authorization	Division of Gas-Environment and Engineering 888 1 st Street NE Washington, DC 20426 Rich McGuire, Acting Director	4/1/2015	Yes	3/25/2015	October-15	June-17
Bureau of Indian Affairs, Eastern Regional Office	Consultation regarding which tribes may have potential interest in project area or presence of traditional cultural properties, and contact tribes as appropriate	Johnna Blackhair, Deputy Regional Director 545 Marriott Drive, Suite 700 Nashville, TN 37214	4/27/2015	Pending further consultation	4/27/2015	N/A	N/A
U.S. Department of Transportation (USDOT), Office of Safety, Energy, and the Environment	Consultation	1200 New Jersey Ave. SE Washington, D.C. 20590 Barbara McCann, Director	4/27/2015	Pending further consultation	4/27/2015	N/A	N/A
U.S. Army Corps of Engineers (USACE), Pittsburgh District	Section 404 Permit for impacts on waters of the U.S., including wetlands Section 10 Permit for activities affecting navigation Joint Permit Application	Pittsburgh District Corps of Engineers Regulatory/Permits Federal Bldg., 20th Floor 1000 Liberty Ave. Pittsburgh, PA 15222 412-395-7152	4/27/2015	Pending further consultation	4/27/2015	October-15 June-16	June-17
USACE, Huntington District	Section 404 Permit for impacts on waters of the U.S., including wetlands	Huntington District Corps of Engineers Regulatory/Permits – Energy Resources (WV and OH) Colonel Leon F. Parrott 502 Eighth St. Huntington, WV 25701 (304) 399-5211	4/27/2015	Pending further consultation	4/27/2015	October-15	June-17
U.S. Department of Agriculture (USDA), Pennsylvania	Consultation regarding permanent conversion of important farmland	Pennsylvania NRCS State Office One Credit Union Place, Suite 340 Harrisburg, PA 17110-2993 717-237-2207 Joe Kraft, State Soil Scientist	4/27/2015	Pending further consultation	4/27/2015	N/A	N/A
U.S. Fish and Wildlife Service (USFWS)	Consultation under Section 7 of ESA for potential impacts on federally protected species Consultation regarding impacts on migratory birds Consultation regarding impacts on fish and wildlife	Pennsylvania Field Office Lora Zimmerman, Project Leader 110 Radnor Rd; Suite 101 State College, PA 16801 Phone: (814) 234-4090 Ext. 2233 Fax: (814) 234-0748 Email: lora_zimmerman@fws.gov West Virginia Field Office John Schmidt, Project Leader 694 Beverly Pike Elkins, WV 26241 Phone: (304) 636-6586 Fax: (304) 636-7824 Email: john_schmidt@fws.gov	4/27/2015	Pending further consultation	6/24/2015	N/A	February-16
State							
Pennsylvania Game Commission (PGC)	Threatened and Endangered Species Consultation	Bureau of Wildlife Habitat Management Division of Environmental Planning & Habitat Protection Tracey Librandi-Mumma 2001 Elmerton Avenue Harrisburg, PA 17110-9797 717-787-4250	4/27/2015	Pending further consultation	6/24/2015	N/A	June-15
Pennsylvania Department of Conservation and Natural Resources (PADCNR)	Threatened and Endangered Species Consultation	Conservation Science and Ecological Services Division Rachel Carson State Office Building, 6th Floor P.O. Box 8552 Harrisburg, PA 17105-8552 717-787-3444	4/27/2015	Pending further consultation	6/24/2015	N/A	June-17

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Pennsylvania Fish and Boat Commission	Threatened and Endangered Species Consultation	Division of Environmental Services 450 Robinson Lane, Bellefonte 16823-9685 814-359-5115 Dave Spotts, Chief	4/27/2015	Pending further consultation	6/24/2015	N/A	January-16
Pennsylvania Department of Environmental Protection (PADEP), Air Permits Division	Chapter 127 Minor Source Permit Title V or Minor Source Operating Permit	Southwest Regional Office 400 Waterfront Drive Pittsburgh, PA 15222-4745 412-442-5215 Mark Wayner, Air Quality Program Manager; Mark Gorog, Environmental Engineer Manager; and Devin Tomko, Air Quality Engineering Specialist	4/27/2015	Pending further consultation	3/10/2015	October-15	October-16
PADEP	ESCGP-2; General Permit for Earth Disturbance Associated with Oil and Gas Exploration, Production, Processing, or treatment operations or transmission facilities PAG-10 General Permit; Hydrostatic Testing of Tanks and Pipelines	Greene County Conservation District 19 South Washington Street, Waynesburg, PA 15370 Washington County Conservation District 2800 N Main St Suite 105 Washington, PA 15301 Allegheny County Conservation District 33 Terminal Way #325b, Pittsburgh, PA 15219	4/27/2015	Pending further consultation	4/27/2015	March-16 State-wide PAG-10 authorization held	June-17
PADEP, Bureau of Waterways Engineering and Wetlands	Chapter 105 Water Obstruction and Encroachment Permit; Clean Water Act Section 401 Water Quality Certification (jointly with USACE Section 404) Submerged Lands License Agreement	Greene County Conservation District 19 South Washington Street, Waynesburg, PA 15370 Washington County Conservation District 2800 N Main St Suite 105 Washington, PA 15301 Allegheny County Conservation District 33 Terminal Way #325b, Pittsburgh, PA 15219	4/27/2015	Pending further consultation	4/27/2015	October-15	June-17
Pennsylvania Department of Transportation	Highway Occupancy Permit	Engineering District 11-0 (Allegheny County) 45 Thoms Run Road Bridgeville, PA 15017 412-429-4804 John Brosnan, H.O.P. Manager Engineering District 12-0 (Washington and Greene counties) N. Gallatin Avenue Ext. PO Box 259 Uniontown, PA 15401 724-439-7310 Richard Marker, P.E., H.O.P. Manager	4/27/2015	Pending further consultation	4/27/2015	Ongoing	June-17
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation (serves as the PA State Historic Preservation Office [SHPO])	Project Review under Section 106 and PA History Code	Serena Bellew, Bureau Director / Deputy State Historic Preservation Officer 717-705-4035 sbellew@pa.gov Western Region Historic Resources Barbara Frederick 717-772-0921 bafrederic@pa.gov Archaeological Resources Kira Heinrich 717-705-0700 kiheinrich@pa.gov	4/27/2015	Pending further consultation	5/7/2015	N/A	July-16

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West Virginia Division of Natural Resources (WVDNR), Natural Heritage Program	Consultation	WVDNR, Office of Wildlife Resources Barbara Sargent 67 Ward Road Elkins, WV 26241 South Charleston, WV 25303 Phone: (304) 637-0245 Email: Barbara.d.sargent@wv.gov	4/27/2015	Pending further consultation	6/24/2015	N/A	June-16
WVDNR, Office of Land and Streams	Stream Activity Permit	WVDNR, Office of Land and Streams Building 74, Room 200 324 Fourth Avenue South Charleston, WV 25303 Phone: (304) 558-3225 Fax: (304) 558-6048 Email: dnr.landandstreams@wv.gov	4/27/2015	Pending further consultation	4/27/2015	August-16	June-17
West Virginia Department of Environmental Protection (WVDEP), Division of Water and Waste Management	NPDES Permit – Construction Stormwater General Permit for Oil and Gas Related Construction Activities NPDES Hydrostatic Test Discharge Permit	WVDEP, Division of Water and Waste Management 601 57 th Street SE Charleston, WV 25304 Phone: (304) 926-0499 Ext. 1571	4/27/2015	Pending further consultation	4/27/2015	August-16	June-17
West Virginia Department of Transportation (WVDOT), Division of Highways (DOH)	Right-of-Way Use Permit/Encroachment Permit	WVDOT, Division of Highways 1 DOT Drive Moundsville, WV 26041-1605 Phone: (304) 843-4000	4/27/2015	Pending further consultation	4/27/2015	Ongoing	June-17
West Virginia Division of Culture and History	Cultural Resources Consultation	West Virginia Division of Culture and History Susan Pierce, Director, Deputy State Historic Preservation Officer 1900 Kanawha Boulevard East Charleston, WV 25305 Phone: (304) 558-0240 Ext. 158 Email: susan.m.pierce@wv.gov	4/27/2015	Pending further consultation	5/7/2015	N/A	July-16
Local							
Wetzel County Flood Plain Management	Floodplain Development Permit	Wetzel County Emergency Services Edgar Sapp, Director P.O. Box 156 New Martinsville, WV 26155 Phone: (304) 455-6960 Email: wc911@frontier.com	4/27/2015	Pending further consultation	4/27/2015	N/A - Project not in FEMA 100-yr floodplain	

Note: Consultations will occur continuously throughout the development of the Project.

Attachment General-3

Preparedness, Prevention, and Contingency and Emergency Action Plan, Equitrans Expansion Project, H-318 (Allegheny and Washington Counties, Pennsylvania)

Preparedness, Prevention, and Contingency and Emergency Action Plan, Equitrans Expansion Project, H-316, H-302, M-80, H-158 (Greene County, Pennsylvania)

Spill Prevention, Control and Countermeasures Plan, Equitrans Expansion Project, Webster Interconnect, H-319, and Mobley Tap (Wetzel County, West Virginia)

Attachment General-3

Preparedness, Prevention, and Contingency and Emergency Action Plan, Equitrans
Expansion Project, H-318 (Allegheny and Washington Counties, Pennsylvania)

**PREPAREDNESS, PREVENTION, AND CONTINGENCY
AND EMERGENCY ACTION PLAN**

PREPARED FOR THE

Equitrans, L.P.

Equitrans Expansion Project – H-318

SITUATED IN

**Forward Township
Allegheny County
Union Township
Washington County
Pennsylvania**

**February 2016
Revised July 2016**

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Attachment 1 – Emergency Contact Information

Attachment 2 – Material and Waste Inventory

Attachment 3 – Horizontal Directional Drilling Contingency Plan

Attachment 4 – Unanticipated Discovery of Contamination Plan

Section 1 - General Information

1.1 Objective

This Preparedness, Prevention, and Contingency (PPC) Plan, Spill Prevention, Control, and Countermesure (SPCC) and Emergency Action Plan (EAP) (Plan) has been prepared for Equitrans, LP (Equitrans) for the proposed Equitrans Expansion project, located in Forward Township, Allegheny County, and Union Township, Washington County PA. A facility is subject to the SPCC Rule if the total aboveground storage capacity of oil and oil products exceeds 1,320 gallons, or if the underground storage capacity exceeds 42,000 gallons, and if, because of its location, the facility could reasonably be expected to discharge oil into navigable waters of the United States. Oil-filled bulk storage containers and oil-filled operational equipment with a capacity of less than 55 gallons, permanently closed bulk storage containers, and motive power equipment are not included in the total storage capacity of the facility and are exempted from requirements under the SPCC Rule.

This plan describes the procedures to be followed by employees and contractors to prepare for, prevent, control, and respond to an emergency or spill.

This PPC/EAP and SPCC has been prepared in accordance with Commonwealth of Pennsylvania Department of Environmental Protection (PADEP) Division of Oil and Gas, *Oil and Gas Management Practices and Guidelines for the Development and Implementation of Environmental Emergency Response Plans. I.D.:400-2200-001*, and the Environmental Protection Agency *Spill Prevention Control and Countermeasures guidance*. This plan provides information and procedures in accordance with state and federal regulations regarding means to prevent and minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden releases of toxic, hazardous or other polluting materials to air, water, or land.

For purposes of this plan the following definitions apply:

- *A spill* is defined as any unauthorized spill or leak of a hazardous material or oil.
- *A significant spill* is defined in the *Oil and Gas Management Practices and Guidelines for the Development and Implementation of Environmental Emergency Response Plans* as including but not limited to releases of oil and hazardous substances in excess of reportable quantities under Section 3111 of the Clean Water Act (40 CFR 110.10 and CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; 40 CFR 302.4).
- *Hazardous material* is defined as any substance or material that could adversely affect the health or safety of the public or environment.
- *A hazardous waste* is generally defined as dangerous waste that poses a substantial present or potential hazard to human health or the environment. 40 CFR §261.3 provides in-depth definitions of hazardous waste.
- *An emergency* is defined as a significant injury requiring medical treatment beyond the scope of on-site personnel training.

EMERGENCY CONTACT INFORMATION IS PROVIDED IN ATTACHMENT 1 OF THIS PLAN. FOLLOW PROPER NOTIFICATION PROTOCOL IN THE EVENT OF ANY SPILL OR EMERGENCY ON-SITE.

1.2 Site Information

Site Name: Equitrans Expansion Project – H-318 (Refer to **Figure 1** for project location map)

The proposed project consists of the installation of one 20" natural gas line, modifications at the existing Applegate Gathering System and construction of the Hartson tie-in pad. The H-318 pipeline will move gas from new modifications at the existing Applegate Gathering System, which is operated by EQT Gathering, LLC (EQT Gathering), to a new Hartson tie-in at Equitrans' existing H-148 pipeline for delivery south. Construction activities will involve constructing a tie-in pad, clearing and grubbing within the right of way, trenching, pipe installation, site restoration and post-construction stormwater management.

Site Address and Directions to Site: Start of the project (Applegate Gathering System) is off of Pangburn Hollow Rd, from PADEP SWRO – take I-376E to I-579S. Merge onto Crosstown Blvd. Continue onto Liberty Bridge and continue onto W Liberty Ave. Exit onto PA-51S to Uniontown and continue onto PA-51S/Clariton Blvd. Keep right to continue onto Market St. Turn left onto 2nd Ave. Turn left onto Center Ave, Center Ave turns slightly right and becomes Bunola River Rd. Turn left onto Pangburg Hollow Rd. The start of the project, Applegate Gathering System will be on the right.

The end of the project (Hartson Tie-in) is off Finleyville-Elrama Rd, from PADEP SWRO – take I-376E to I-579S. Merge onto Crosstown Blvd. Continue onto Liberty Bridge and continue onto W Liberty Ave. Exit onto PA-51S to Uniontown and continue onto Saw Mill Run Blvd. Take slight right onto Fairhaven Rd. Fairhaven Rd turns slightly right and becomes Provost Rd. Continue onto Brownsville Rd and continue onto Brownsville Rd Ext. Take slight left onto McChain Rd. Turn left onto Finleyville-Elrama Rd. The end of the project, Hartson tie-in will be on the left.

1.3 Plan Availability

A copy of this plan will be available in the following locations:

- On-site in the project mailbox, job trailer, or with on-site coordinator.
- Office of the Environmental Coordinator

1.4 Plan Revisions

The PPC/EAP and all site operations will be reviewed at least once per year to assure that the plan is consistent with applicable state and federal regulations. The plan will also be revised if:

- changes in site operations occur that materially increase the potential for fires, explosions or releases of toxic or hazardous constituents or change the response necessary in an emergency,
- routine inspections determine that the plan needs to be revised,
- the plan fails to achieve the objective stated in **Section 1.1**,
- applicable PADEP or federal regulations are revised,
- the list of personnel who are responsible for implementing or maintaining this plan or emergency equipment changes, or
- as required by the PADEP.

When plan changes are required, the plan will be revised within 30 days of identifying the need for a revision. Plan changes will be implemented in a timely manner, but in no case later than 90 days. Notifications of plan changes or additions will be made to all personnel or groups listed in **Attachment 1**. The on-site copy of this plan will have appropriate changes made with dating and initialing labeled on this copy of the plan.

1.5 Plan Implementation and Organization

In the event of an emergency situation which endangers public health and safety or the environment, the provisions of this plan will be immediately implemented. The following sections shall be referenced for additional information on plan implementation and organization for the project:

- **Section 2.0** – Plan team members and associated responsibilities.
- **Section 3.0** – Pertinent site-specific information.
- **Section 4.0** – Preventative measures
- **Section 5.0** – Countermeasures
- **Section 6.0** – Incident notification information

Section 2 - Plan Team and Responsibilities

2.1 PPC/EAP Team

The PPC/EAP Team consists of the following persons and chain of command (in order of priority):

Name/Title	24 Hours A Day
Dan Truman Equitrans, LP Emergency Coordinator	Office: 304-627-6432 Cell: 304-844-2174
Russell Grooms Equitrans, LP Safety Coordinator	Office: 724-579-0731
Dave Durofchalk Equitrans, LP Senior Environmental Coordinator	Office: 412-395-5583
Stephanie Frazier Permitting Supervisor	Office: 412-553-5798
Jeannine Hammer Equitrans, LP Environmental Manager of Performance and Compliance	Office: 412-395-2553 Cell: 412 709-9804

Responsibilities of the PPC Plan Team include:

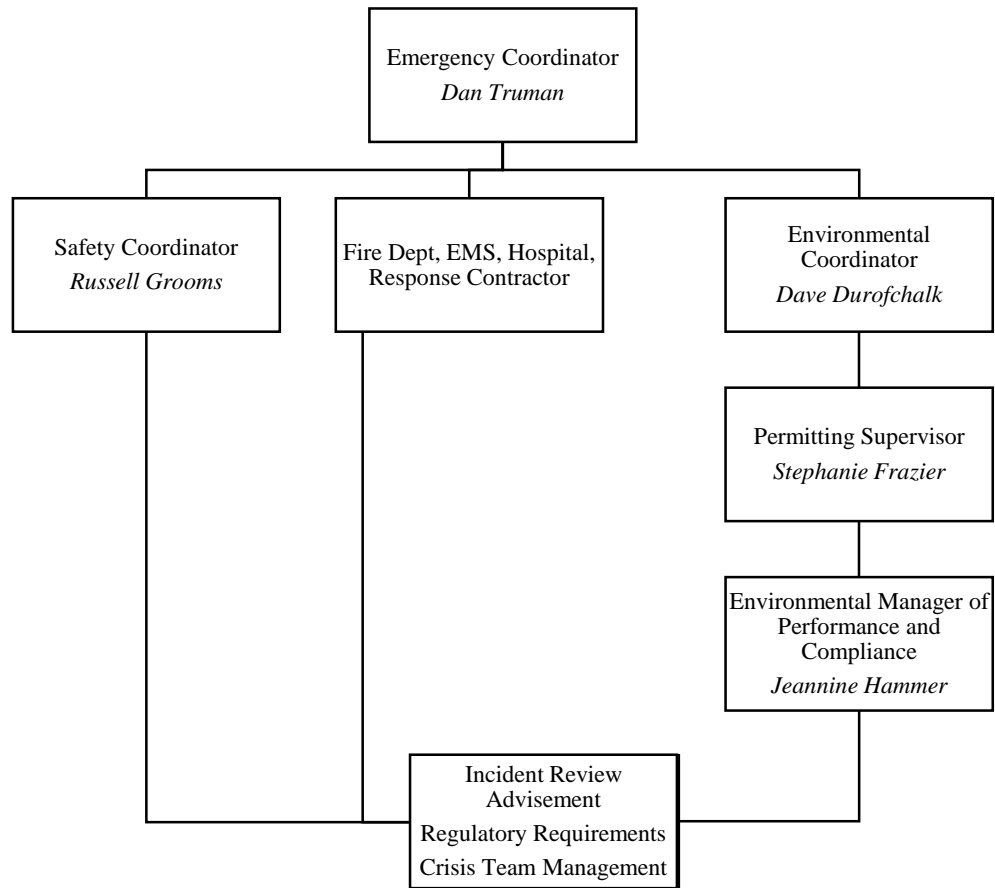
- Maintain familiarity with the contents of this plan.
- Provide training so that on-site personnel are familiar with the contents of this plan.
- Perform spill prevention measures specified in **Section 4.0**.
- Maintain records of spill prevention efforts such as inspections and preventive maintenance as described in **Section 4.0**.
- Implement emergency countermeasures presented in **Section 5.0** under the direction of the emergency coordinator or designee.
- Submit a written report to the appropriate regulatory agency and within the proper timeframe of a significant spill.
- Ensure that all Equitrans field employees are familiar with the plan, and understand how to react in case of an emergency

All on-site personnel shall be made familiar with the contents of this Plan through regular training and periodic safety meetings. Proper training will help all on-site personnel to understand proper protocols in the event of an inadvertent spill or emergency.

2.2 Plan Chain of Command

The plan chain of command defines on-site emergency personnel and members of the PPC/EAP Team that shall be contacted in the event of an emergency. Team members shall be familiar with the order of priority for emergency notifications.

Figure 2.2. Plan Chain of Command



2.3 Emergency Coordinator

The emergency coordinator is responsible for implementing the plan. Should the emergency coordinator not be available on-site, he/she shall designate a member of the PPC/EAP/SPCC team that is familiar with the contents of the plan to act as emergency coordinator in his/her stead.

In the event of an emergency, responsibilities of the emergency coordinator include:

- Activate any alarms and notify personnel as applicable.
- Coordinate all emergency response efforts and establish a safe area command center.
- Take all reasonable measures to ensure that fire, explosion, emission, or discharge do not occur, reoccur or spread to other materials or wastes at the installation. These measures include stopping work and operations, collecting and containing released materials and wastes, and removing or isolating containers.
- Notify appropriate emergency response agencies as specified in **Section 6.0** and listed in **Attachment 1**.
- Notify members of the Team according to chain of command listed in **Section 2.1** and **Section 2.4**.

- Identify the character, exact source, amount, and extent of released material.
- Assess possible hazards to human health or the environment (including direct and indirect effects).
- Take all reasonable measures and commit resources needed to carry out the plan.
- Ensure that site operations underway during the emergency response are properly monitored and controlled.
- Ensure that cleanup residues are properly handled and disposed.

Further details concerning countermeasures and emergency contacts are contained within **Section 5.0** and **Section 6.0** of this plan.

2.4 Plan Administrator

The environmental coordinator or designee is responsible for developing and maintaining the Plan and will be referred to as the plan administrator:

Responsibilities of the plan administrator include:

- Ensure that the plan is reviewed and updated as required.
- Ensure that the plan is distributed as required.

Section 3 - Site Activity Description and Potential Pollutants

3.1 Site Activity Description

The proposed Project consists of the installation one 20" natural gas pipeline (H-318) approximately 5 miles long within a 100' construction right-of-way and 50' permanent right-of-way. The H-318 pipeline will move gas from new modifications at the existing Applegate Gathering System, which is operated by EQT Gathering, LLC (EQT Gathering), to a new Hartson tie-in at Equitrans' existing H-148 pipeline for delivery south. Construction activities will involve constructing a tie-in pad, clearing and grubbing within the right of way, trenching, pipe installation, site restoration and post-construction stormwater management.

An erosion and sediment (E&S) control plan has been developed for the site to prevent erosion to disturbed soil surfaces and reduce sedimentation to surrounding surface and ground water.

3.2 Material and Waste Inventory

All materials stored on-site shall be properly marked and kept in US Department of Transportation approved containers. The **contractor** shall identify and list all sources of potential large spills, including tank overflow, rupture, or leakage. MSDS sheets must be included for all containers **larger than 660 gallons or for locations that have a total capacity of 1,320 gallons** that contain oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with waste as required in Code of Federal Regulations, Title 40, Part 112 (40 CFR 112) within the attached Tables.

Table 3.2 has been included on the following pages to provide an inventory of materials typically expected to be on a construction site of this type, chemicals within these materials that are potential pollutants, and BMPs associated with each material type to mitigate risk for water resources pollution. The **contractor** shall complete and maintain **Attachment 2** for Material and Waste Inventory. Safety Data Sheets (SDS) for materials shall be maintained on-site as necessary. Waste generated on-site will be characterized, properly stored, and disposed of at an approved facility.

Table 3.2. Potential Pollutant Sources and Best Management Practices

Material/Chemical	Potential Pollutants	Best Management Practice
Cleaning Solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Glue, Adhesives, Epoxy Powders	Polymers, epoxies	Disposal of used containers must follow manufacturer specifications. Proper application (see manufacturer recommendations). Storage of products: Properly sealed containers indoors, on a pallet, under shelter, tarp or inside a vehicle tool cabinet.
Concrete, Concrete Washout Water	Limestone, pH	Designated concrete washout area on ROW. Do not clean out hopper or chute on to ground or in drainage channels. Concrete washout area must be within a bermed containment area. It must be cleaned out when it reaches a 75% capacity. Recommend cleanout at 50%. All wash out areas will be in the permanent ROW.
Wood Preservatives	Stoddard solvent, petroleum distillates, arsenic, copper, chromium; creosote; pentachlorophenol	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Gasoline / Diesel Fuel	Benzene, ethyl benzene, toluene, xylene, MTBE	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment. All on-site vehicles will be routinely inspected for leaks and drips.

Material/Chemical	Potential Pollutants	Best Management Practice
Kerosene	Coal oil, petroleum distillates	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Antifreeze/Coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment. All on-site vehicles will be routinely inspected for leaks and drips.
Detergents	Phosphorous	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Sediment	Nutrients, suspended solids, sediment	Sediment erosion and sedimentation on-site should be controlled by structural and non-structural BMPs. Structural BMPs can include but are not limited to: sediment control logs, erosion control blankets, riprap, earth berms, and silt fence. Non-structural BMPs can include but are not limited to: seed and mulch, exposure time of disturbed soils, education of on-site personnel.

3.3 Pollution Incident History

No major pollution incidents have occurred on Equitrans sites.

3.4 Implementation Schedule for Plan Elements not Currently in Place

There are no known elements of this plan that are not currently in place. Certain projects may require additional measures depending on scope of activity. Additional items that may need to be implemented include but are not limited to:

- Erosion and sediment control plan and applicable PADEP permits
- Post-construction stormwater management plan and applicable PADEP permits
- Inadvertent release plan for boring projects (refer to Attachment 3)
- Additional chemical and material management measures

Section 4 - Spill Prevention and Response

4.1 Pre-release Planning

The Contractor must assess the materials kept on-site and note areas that may become contaminated should a spill occur. Preventative measures listed below should be considered when storing potentially hazardous chemicals or materials on-site:

- Store chemicals and materials in proper US DOT approved totes/containers
- Provide secondary containment as required
- Store potential pollutants in areas where they will not be readily transported toward sensitive water resources in the event of a spill
- Note any emergency shutoff valves on equipment or storage containers that will be used in the event of a spill

4.2 Material Compatibility

Materials must be stored in dedicated containers or totes and used only for the intended chemical storage. Storage containers should not be reused with a different chemical if there is any chance of a reaction occurring. If the reactivity between chemicals is unknown, they should not be mixed or stored in the same container until it has been verified that no harmful reaction will take place.

Thorough cleansing of chemical storage containers should be standard practice to ensure that there is no residual incompatible with the next or later materials used. Any available National Fire Protection Agency (NFPA) placards should be referenced for hazardous materials to identify potential reactivity.

4.3 Inspection and Monitoring Program

During construction employees are required to check for the following conditions: spills and leakage of fuels, lubricants or any other contaminants; visible soil contamination; malfunctioning equipment; on-site traffic accidents; storm water contamination; or any other condition which could lead to contamination of air, soil, or water. If an abnormality occurs, the employees must contact one of the designated Team members listed above in **Section 2.1** of this Plan.

Inspections shall occur on a daily and weekly basis as described below:

Daily Inspections: An Equitrans employee, or his/her designee, will conduct a visual inspection of the project area each day. The purpose of the inspection is to identify housekeeping and preventative maintenance needs. Issues of potential concern will be brought to the attention of the responsible person in charge immediately following the inspection. A log of any issues identified during daily inspections shall be kept on-site with the copy of the PPC/EAP and E&S Control Plan.

Weekly Inspections: An Equitrans employee, or his/her designee, shall conduct a weekly inspection of the site and log findings on the standard PADEP Inspection Form 3150-FM-BWEW0083 to record their findings. The standard form should be used for E&S BMP inspection, and any spills or potential pollution issues should be noted on Item 8 of the inspection form.

4.4 Preventative Maintenance

Preventative maintenance measures for the expected scope of work are listed below:

- Construction Activities
 - During construction, proper BMPs shall be utilized to prevent stormwater runoff coming into contact with potential pollutants including construction materials, fuel, and construction equipment. Equipment and material storage areas should be located in areas where the potential for contact with water resources is at a minimum. Furthermore, risk for pollution from erosion and sedimentation will be mitigated through the use of PADEP approved erosion and sediment control BMPs.
- Materials Handling
 - Materials to be stored in the project area should be located in areas that are protected from significant surface flows to prevent transmission of potential pollutants to surface waters.
 - Hazardous materials, including chemicals, fuels, and lubricating oils, shall not be stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas.
 - When unique conditions require refueling within 100 feet of the banks of a waterbody, a wetland boundary, or within any municipal watersheds, this activity must be approved in advance by the Environmental Inspector following a review that no reasonable alternatives exist and incorporation of any necessary additional emergency response measures. At a minimum, the review will consider the environmental risks of relocating equipment to an authorized refuel/lubrication area verses risks involved with refuel/lubrication in-place. Additional emergency response measures include availability of absorbent materials or other secondary spill containment materials for immediate application prior to commencing refueling activities.
 - Any potential pollutants stored on-site shall be kept covered with proper secondary containment to prevent water resources impacts.
 - Any collected stormwater within secondary containment should be inspected for signs of pollution (sheen, discoloration and other signs of chemical pollution). If no evidence of pollution is noted, collected water will be allowed to evaporate. Where possible pollution is discovered within secondary containment, collected stormwater should be properly disposed of offsite by hauling to a state approved facility.
- Equipment Cleaning and Maintenance
 - Cleaning and maintenance of equipment should take place away from water resources and within designated areas of adequate containment to prevent pollutants from entering water resources. Overnight equipment parking and refueling shall occur at least 100 feet from a waterbody or wetland boundary or additional emergency response measures include availability of absorbent materials or other secondary spill containment materials must be in place for immediate application prior to commencing activities.
- Pipelines Carrying Contaminants
 - Testing will be conducted prior to the transport of natural gas to ensure pipeline integrity.

- Sumps/Tanks Carrying Contaminants
 - Sumps and Tanks containing potential pollutants shall be located at least 100 feet away from existing water resources and secondary containment should be provided.
 - Single-walled tanks shall be provided with temporary secondary containment that will hold at least 100 percent of the tank capacity of the largest tank inside the containment area.
 - Precipitation shall be inspected first for the evidence of oil, including a sheen, or other containments. If a sheen or other indicators of oil or contamination is present, then the material shall be collected for property disposal off site. Any precipitation shall be removed from the containment area to maintain the available containment volume at 110 percent of the volume of material stored.
 - Tanks/Containers and secondary containment drains shall remain closed when not in use.

4.5 Housekeeping Program

General Site Housekeeping:

Site housekeeping practices shall be implemented to provide neat storage of materials on-site in order to reduce the potential for materials to be exposed to stormwater runoff and to ensure that debris is not left at the site upon project completion.

Workspaces shall be inspected at the end of each workday and any trash, debris, or other discarded materials should be properly disposed of in designated roll-off bins or similar container. The site should also be inspected for accumulated soils at BMPs and also at site entrance/exits. Any collected soils should be placed at a designated area on-site and stabilized with seed and mulch upon reaching final grade. Soils deposited on roadways shall be swept using hand tools or a street sweeping machine (if permissible) and soils shall be returned to the project area. No soils should be swept into roadside ditches or storm inlets.

An inspection schedule for general housekeeping should be defined at the beginning of the project and employees should be informed of proper practices and pollution prevention concepts.

Fuel and Chemical Handling

Potentially hazardous materials such as fuel and oil for equipment and chemicals associated with the project should be properly stored on-site and secondary containment should be provided at storage locations to prevent release of harmful fluids to the environment.

Drip pans or similar methods should be provided during equipment fueling to contain leaks. Any waste occurring during refueling or maintenance should be stored in proper containers and taken off site for disposal or recycling. Overnight equipment parking and refueling shall occur at least 100 feet from a waterbody or wetland boundary.

When unique conditions require refueling within 100 feet of the banks of a waterbody, a wetland boundary, or within any municipal watersheds, this activity must be approved in advance by the Environmental Inspector following a review that no reasonable alternatives exist and incorporation of any necessary additional emergency response measures. At a minimum, the review will consider the environmental risks of relocating equipment to an authorized refuel/lubrication area versus risks

involved with refuel/lubrication in-place. Additional emergency response measures include availability of absorbent materials or other secondary spill containment materials for immediate application prior to commencing refueling activities.

Any major maintenance projects on equipment should be carried out at an offsite location.

Should a spill occur, contaminated soils shall be excavated and stored in lined containers for disposal. Proper reporting and record keeping procedures consistent with the applicable agency standards shall be utilized in the event of a spill. Vehicles and other equipment should be inspected regularly for leaks and required maintenance should be completed immediately. The following guidelines should be observed for fuel and chemical storage on-site:

1. Product containers should be clearly labeled, inventoried, and Safety Data Sheets (SDS) shall be kept on site.
2. Store fuel and chemicals away from construction traffic to reduce potential for accidental spills.
3. Any fuel or chemical storage tanks/drums should be kept within secondary containment.
4. Monitor storage areas regularly for leaks and check secondary containment for evidence of leaks (sheen, discoloration, etc...)

4.6 Security

While site security is not a major concern given the scope of the project, procedures should be followed at the site to prevent accidental or intentional entry that could result in a violation of Departmental regulations, or injury to persons or livestock. The following procedures should be considered in relation to site security:

- Locate equipment and materials away from any area where the public can easily gain access.
- Provide fencing as necessary or store equipment and materials inside of locked, fenced areas where possible.
- Provide locks on storage tank drain valves, fuel dispensers, etc...
- Install safety fence to deter foot traffic in active work areas.
- Provide traffic control as necessary to deter unauthorized public travel in work areas.
- Provide proper flagging and signage when needed for entering and exiting public roadways.

4.7 External Factor Planning

Severe weather events are the main external factor considered to cause a potential issue for the proposed project. In the event of extremely severe weather including but not limited to thunderstorms, tornadoes, hail storms, and/or severe snowstorms; construction activity shall cease and on-site personnel shall take proper cover until the weather event has ceased. Personnel shall monitor the weather to provide early warning of incoming severe weather.

For any precipitation event, severe or minor, there is an increased risk of pollution from accelerated erosion and sedimentation, as well as the potential for increased pollutant transport should a spill occur during a precipitation event. Proper inspection of E&S BMPs and material or chemical storage areas prior to and within 24 hours following a rain event will mitigate risks associated with stormwater runoff contacting disturbed or contaminated soils. Additional external factors may be present and should be noted by the on-site coordinator as they become evident. Employee and public safety shall be considered first priority in the event of any emergency.

4.8 Employee Training Program

The emergency coordinator is responsible for the initiation of all periodic training sessions that will include no less than the following:

- Implementation of the spill prevention and response plan
- Adopting effective “Good Housekeeping” practices
- Preventative maintenance
- Materials management BMPs
- E&S Control/Storm Water Pollution Prevention

Personnel will be trained, at least annually, in good housekeeping techniques and preventive measures to control the release of contaminants, along with other pertinent safety topics. Contractors or temporary personnel will be apprised of site operation and design features that are intended to prevent discharges or spills from occurring. New employees, who will be involved with response to any spill and/or contamination, will be trained in the applicable pollution control response methods. New employees will also be trained on the contents of the applicable PPC/EAP's and a copies will be made available to them for reference. Records are to be kept by the emergency coordinator.

Section 5 - Countermeasures

5.1 General

Employees must report immediately to the designated individuals listed in **Section 2.1** if any spill, incident/emergency or potential contamination problem has occurred.

During an emergency, operations will cease. Qualified personnel will direct response efforts with available equipment and personnel until emergency assistance arrives.

5.2 Countermeasures to be Undertaken by Facility

During construction a supply of spill response materials will be stored on-site. Personnel should be familiar with the following general conditions relative to providing countermeasure support:

- Smoking at the active construction areas will be prohibited.
- Follow housekeeping program listed in **Section 4.6**
- Refer to **Attachment 1** for local fire department and hospital emergency contact and notification information.
- Tools used for spill cleanup should be cleaned and contaminated water shall be properly disposed. Incidents should be properly documented with all pertinent information and kept on record.

In the event of an accidental spill or release of hazardous materials that may have an adverse impact to people, property, or the environment, the following procedures will be implemented:

- Notify emergency coordinator if a spill has occurred and request instructions for forward proceedings.
- The emergency coordinator will inspect the site to identify the type of materials being released and will assess the probability of environmental damage based on the location of the spill and other factors.
- Upon being notified of a spill or emergency, the chain of command personnel shall notify proper regulatory agencies as necessary.
- Take the action necessary to contain and/or mitigate possible environmental damage.
- Contain the leak and/or spill with absorbent material, diking material, (or soil, if necessary).
- Equipment from the operation will be mobilized to remove contaminated materials and place them in a suitable container for conveyance to a certified disposal site.
- Perform any testing on materials from the clean-up (needed to determine final destination of waste materials) and submit to appropriate regulatory agency.
- Complete an internal spill report for the incident. Contact a waste contractor to arrange for the removal of contaminated absorbent materials. Arrange for testing of wash water to determine how it can be safely disposed of.
- When the incident is corrected, the on-site coordinator will report the spill to the Environmental and Safety Coordinator and record this information in the daily operating logs.

Contractors Utilized for Transportation of Wastes and Waste Management Facilities

LAD Liquid Assets Disposal Inc.

226 Rankin Road

Washington, PA 15301

724-350-2760; 724-222-6080; 724-229-7034 (fax)

Ohio County/Wheeling

United States Environmental Protection Agency (USEPA) Permit #WV 0014

Tri County Waste Water Management, Inc.

1487 Toms Run Road
Holbrook, PA 15341
724-627-7178; 724-499-5647
Greene County/Waynesburg
Permit #TC-1009

5.3 Countermeasures to be Undertaken by Contractors

Equitrans has made arrangements with the following contractors to respond as necessary to significant spills:

- **McCutcheon Enterprises**
250 Park Road
Apollo, PA 15613-8730
412-568-3623
- **Weavertown Environmental Group**
2 Dornington Rd
Carnegie, PA 15106
724-746-4850
- **Minuteman Environmental Services**
1561 Roy Furman Hwy
Carmichaels, PA 15320
800-905-7788 (24-hour)

Combined Capabilities: Mobile vacuum equipment, mobile storage tanks, remediation systems and service, transportation services, waste management Emergency Response Trailers, excavation equipment, Traffic Control.

5.4 Internal and External Communications

Employees must provide notification by telephone immediately according to the chain of command listed in **Section 2.1** and **Section 2.2** if any spill, incident/emergency or potential contamination problem has occurred. If the first person on the list is not available, the employee shall continue through the chain of command phone list until proper contact has been established.

An employee providing notification of a spill or emergency must continue going through the call list until an actual person has been contacted. Telephone messages may be left as necessary, but leaving a message does not fulfill the notification requirements of this plan.

During any shift, the emergency coordinator may be contacted either by cell phone or word of mouth but verification of the contact must be assured prior to considering the notification requirement met. During weekends and holidays, emergency coordinators should be called on their mobile phones.

In cases of fire or injury, the local fire, Emergency Management Service (EMS), and police departments should be notified before any other actions are taken.

A complete Notification List can be found in **Attachment 1** of this document.

5.5 Evacuation plan for Installation Personnel

In the event of a fire or emergency on-site, personnel will rally near the access road or at the site entrance. Once a person has been accounted for, he or she may be directed to evacuate the premises entirely by the emergency coordinator or the highest ranking person on location according to the chain of command. It is the responsibility of the emergency coordinator to account for all individuals on the site and direct emergency personnel to the last known location of any missing person.

5.6 Emergency Equipment Available for Response

Basic spill cleanup materials shall be stored in the on-site totes or kits. Absorbent booms, socks, pillows, as well as additional equipment are available on location for initial response to emergencies (hand tools, fire extinguishers, and cleaning supplies). Response Trailers are located at various geographic regions and available 24/7. In addition to spill response kits, the following items shall be available for response to an emergency:

Fire Extinguisher(s): Fully-charged fire extinguishers will be readily available on-site.

First Aid Kit(s): In the case of on-site personnel accidents or injuries, first aid kits shall be available to provide initial response to the injured person. First aid may be administered by qualified individuals on-site if extent of injuries permits. In case of more serious injuries, emergency response personnel will be notified (paramedics for transport to the local hospital). General first aid procedures should be followed until emergency medical assistance arrives.

Section 6 - Emergency Spill Control Network

6.1 Arrangements with Local Emergency Response Agencies and Hospitals

Attachment 1 lists contact information for the local and regional emergency response network available to support Equitrans in the event of a medical emergency at the site. **Figure 2** shows direction from the project site to the nearest hospital.

Monongahela Valley Hospital will provide or assist gaining access to all emergency medical services. This facility does have an emergency medical unit.

6.2 Content of Verbal Notification

Verbal notice of an emergency or spill to regulatory agencies, and designated company individuals should include as much of the information listed below as is known at the time of notification.

- Location and source of the release
- Chemical name or identity of any substance involved in the release and whether the substance is a hazardous substance; i.e., the Chemical Abstract Service ID number (CAS #) as listed in the material's SDS
- Estimate of the quantity of the substance released into the environment.
- Time of the release
- Date of the release
- Environmental medium or media into which the substance was released (soil, storm drain, surface waters)
- Duration of the release
- Proper precautions to take as a result of the release, including evacuation and other proposed response action
- Any known, anticipated or chronic health risks associated with the release and, if known to the informant, advice regarding medical attention necessary for individuals exposed to the substance released
- Name and telephone number of the person or persons to be contacted for further information
- Other information as required

Notification shall not be delayed in order to research missing information. As further information on the release or emergency is discovered it should be relayed to the proper designated individual.

6.3 Formal Incident Reporting

To standardize the procedures for Equitrans employees and contractors, and simplify the In-Field decision making process, all spills, leaks, releases or injuries **must be reported immediately** to the Equitrans Environmental and Safety Department. Appropriate reporting, by Equitrans to relevant Authorities will be conducted as per applicable regulations. Potential reports that may need files depending on spill character and quantity include but are not limited to:

- USEPA Report for Spills and for Reportable Quantities.
- PADEP Spill Report for spills affecting streams
- PA Fish and Boat Commission
- Allegheny County Local Emergency Planning Committee (LEPC) Spills Report
- Washington County Emergency Management

Reportable quantities for hazardous substances are set forth in 40 CFR 110 and 117. The reportable quantities for the hundreds of hazardous substances listed range from as little as one (1) pound to as much as 5,000 pounds, depending on the substance. Oil which is released in sufficient quantity to form a film or sheen on, or discoloration of, the surface of the water or the shoreline, or which deposits a sludge beneath the water surface on the shoreline is reportable. "Oil" includes but is not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes. A "sheen" is defined as an iridescent appearance on the surface of the water.

The Regional USEPA Administrator shall be notified within 60 days whenever a facility regulated under 40 CFR 112 has discharged more than 1,000 gallons of oil due to a single spill, or has twice within any 12-month period discharged oil to water in volumes of 42 gallons or greater.

The USEPA has defined "significant spills" to include releases within a 24-hour period of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act and Section 102 of CERCLA. The judgment of what is a "significant" spill must be made on a case-by-case basis by the site operator.

PA Spill Reporting Requirements Summary			
Kind of Spill	Discharge Location	Reportable Quantity	Regulatory Reference
Hazardous Substance	onto land	5 Gallons	PA Title 67, Chapter 403
	into water	5 Gallons	PA Title 25, Chapter 91
Any oil/hydrocarbon	onto land	5 Gallons	PA Title 67, Chapter 403
	into water	causes sheen	

Disclaimer: All applicable codes, standards, policies, procedures, and best management practices must be followed whether specifically addressed in this plan or not. These include, but are not limited to the Occupational Safety and Health Administration (specifically 29 CFR 1910.120 and 1910.1200), USEPA/PADEP regulations, Equitrans policies and procedures, 40 CFR, Coast Guard regulations, local Ordinances, etc.

Section 7 - References

40 CFR §261.3

40 CFR §110.10

40 CFR §112

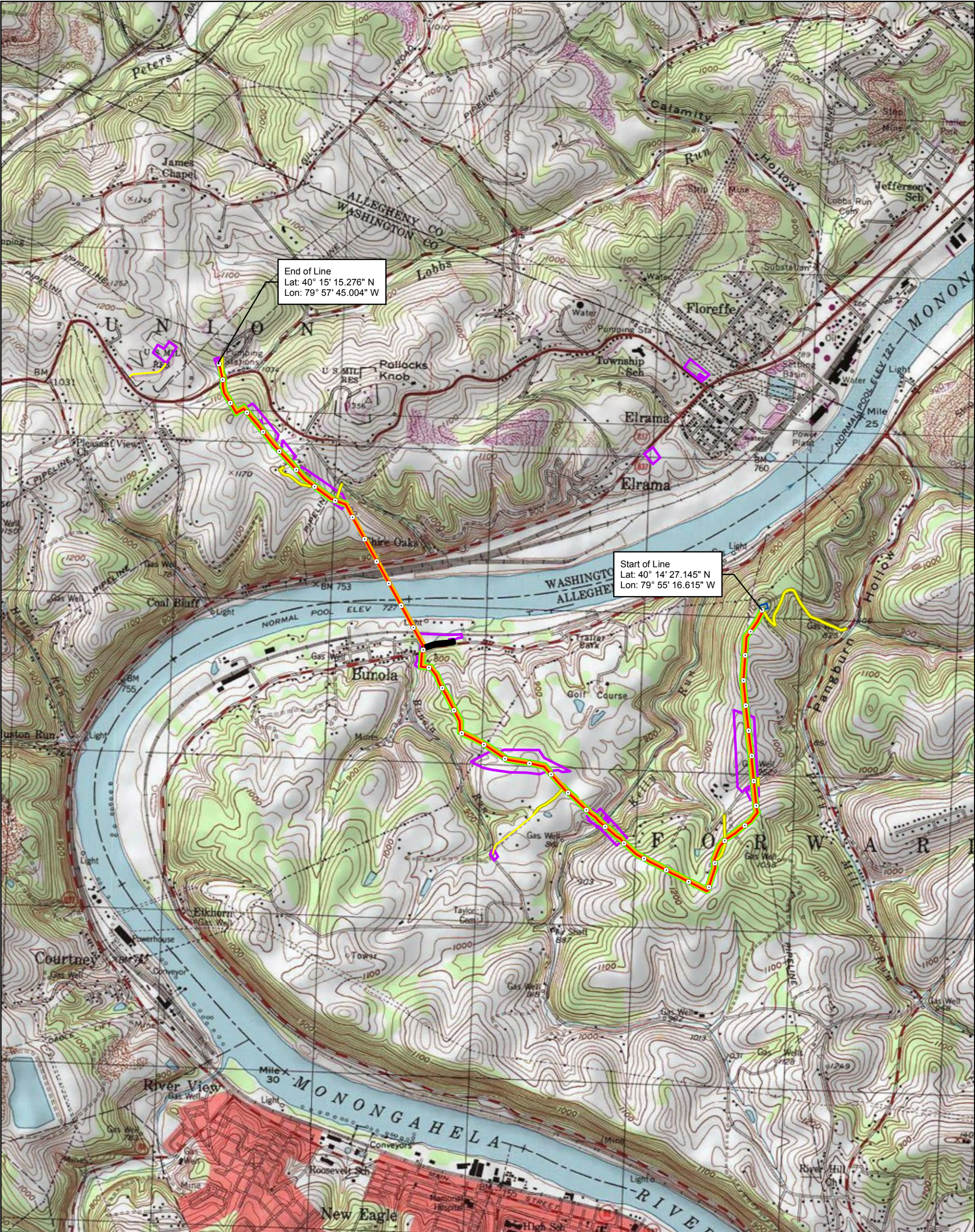
40 CFR §117.21

40 CFR §302.4


Guidelines for the Development and Implementation of Environmental Emergency Response Plans.
Pennsylvania Department of Environmental Protection. Document #400-2200-001. September
2001.

A Facility Owner/Operator's Guide to Oil Pollution Prevention. Spill Prevention, Control, and
Countermeasure (SPCC) Regulation.

Figure 1 – Project Location Map



Equitrans Expansion Project




1:24,000

0

2,000

4,000

Feet



Attachment #: 1-1


USGS Project Location Map


Washington & Allegheny County, PA


October 2015


Data Sources: Topographic map provided by ESRI's ArcGIS Online USA Topo Maps map service (© 2013 National Geographic Society, i-cubed).


Legend


 Milepost


 Alignment Centerline


 Access Road


 Right-of-Way (Access Road)

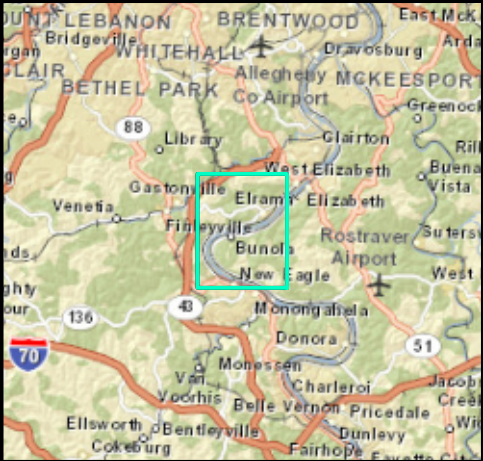
 Groundbed

 Permanent Right-of-Way

 Temporary Right-of-Way

 Workspace

 Permanent Site



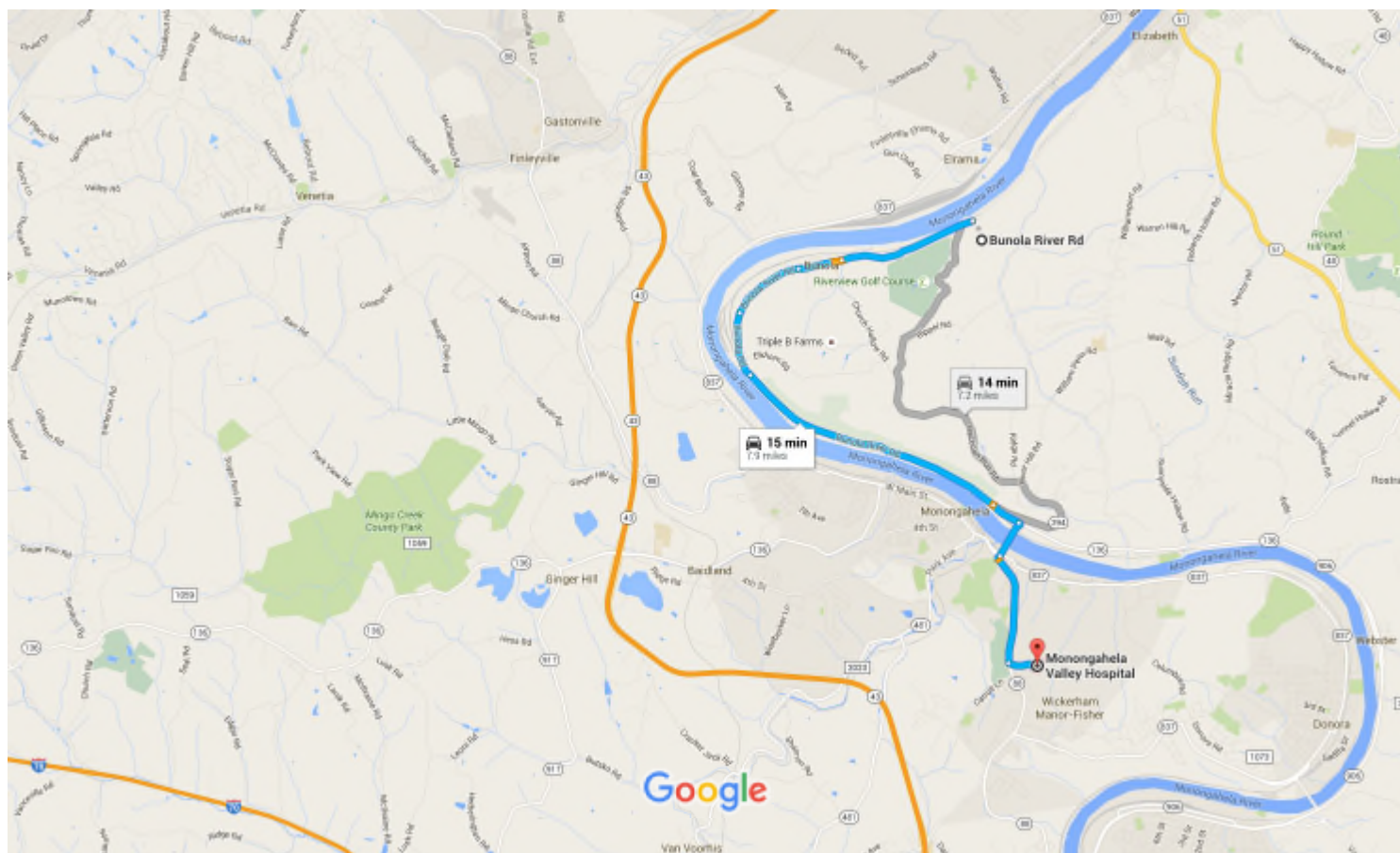
Document Path: P:\GIS\EQT\MapDocs\eeep_pa_washalleghCo_usgs.mxd

Figure 2 – Hospital Location and Directions



Bunola River Rd, Monongahela, PA 15063 to Monongahela Valley Hospital

Drive 7.9 miles, 15 min



Map data ©2015 Google

1 mi

Bunola River Rd

Monongahela, PA 15063

Take Bunola River Rd and PA-88 S to Mon Valley Hospital Rd in Carroll Township

14 min (7.6 mi)

- ↑ 1. Head southwest on Bunola River Rd toward Raccoon Run Rd
1.3 mi
- ↑ 2. Continue onto Bunola Rd
0.4 mi
- ↑ 3. Continue onto Bunola River Rd
0.7 mi
- ↑ 4. Continue onto Bunola Rd
0.6 mi
- ↑ 5. Continue onto Bunola River Rd
2.7 mi



6. Continue onto Bunola Rd

0.3 mi



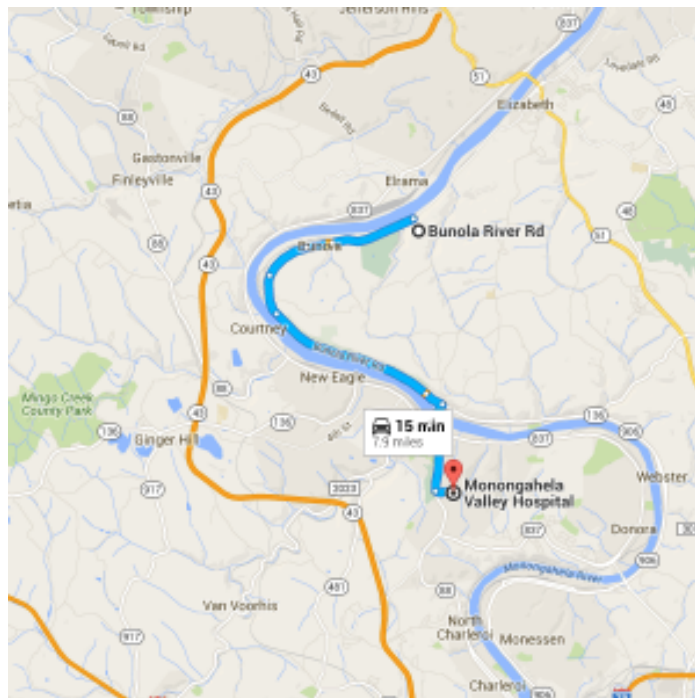
7. Turn right onto PA-136 W

0.4 mi



8. Turn left onto PA-88 S

1.1 mi

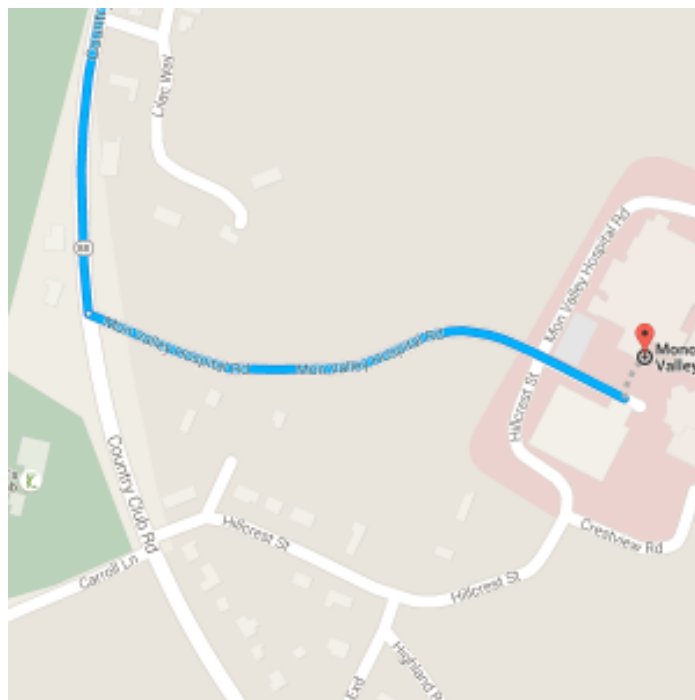


9. Turn left onto Mon Valley Hospital Rd



Destination will be on the left

59 s (0.3 mi)



Monongahela Valley Hospital

1163 Country Club Road, Monongahela, PA 15063

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Attachment 1 – Emergency Contact Information

EMERGENCY CONTACT INFORMATION

In the event of an emergency, the on-site coordinator shall first ensure the safety of all personnel and, if possible, contain any spill or other event to the extent practicable. Upon initial containment of a spill or neutralization of a threat to personnel health, the on-site coordinator shall follow the chain of command and contact necessary individuals listed below.

<u>Operator Information</u>	<u>Key Emergency Numbers</u>
<u>Site Name:</u> Equitrans Expansion Project – H-318 <u>Site Location:</u> Applegate Gathering System Long: -79° 55' 16.61" Lat: 40° 14' 27.14" Hartson tie-in Long: -79° 57' 45.00" Lat: 40° 15' 15.27" <u>Operator:</u> Equitrans, LP 555 Southpointe Blvd, Suite 200 Canonsburg, PA 15317 <u>Land Agent:</u> Hanna McCoy 724-873-3476 <u>Chain of Command:</u> <i>Contact the following individuals in the order listed in the event of an accidental spill or emergency on-site.</i> <u>Emergency Coordinator:</u> Dan Truman 304-627-6432 (office), 304-844-2174 (cell) <u>Safety Coordinator:</u> Russell Grooms 724-579-0731 <u>Environmental Coordinator:</u> Dave Durofchalk 412-395-5583 (office) <u>Permitting Supervisor:</u> Stephanie Frazier 412-553-5798 <u>Environmental Manager of Performance and Compliance:</u> Jeannine Hammer 412-395-2553	<u>Plan Emergency and Environmental Supervisor:</u> Dave Durofchalk 412-395-5583 (office) <u>Safety Coordinator:</u> Russell Grooms 724-579-0731 <u>Pennsylvania Dept. of Environmental Protection:</u> See attached <u>USCG/National Response Center (NRC):</u> 800-424-8802 <u>Allegheny County Emergency Management Agency:</u> 412-473-1000 (Emergency calls only) <u>Washington County Emergency Management Agency:</u> 724-228-6911 <u>Closest Fire Station:</u> Bunola Volunteer Fire Company Station 156 366 Bunola River Rd, Bunola, PA 15020 412-384-9940 <u>Closest Hospital:</u> Monongahela Valley Hospital 1163 Country Club Rd, Monongahela PA 15063 724-258-1000 <u>The PA Emergency Management Agency:</u> 800-424-7362 or 717-651-2001 <u>PA Game Commission:</u> 717-787-4250 <u>PA Fish and Boat Commission:</u> 814-445-8974 <u>USEPA Region 3</u> 215-814-5000

Attachment 2
Material and Waste Inventory

List of Oil and Fuel to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

List of Commercial Chemicals to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

List of Hazardous and Non-hazardous Wastes to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

Notes: **THESE TABLES TO BE COMPLETED AND MAINTAINED BY CONTRACTOR.**

MSDS for all substances listed in the above tables shall be provided by the contractor. All containers shall have temporary containment.

Attachment 3
Horizontal Directional Drilling Contingency Plan

**HORIZONTAL DIRECTIONAL DRILLING (HDD)
CONTINGENCY PLAN**

**EQUITRANS EXPANSION
PROJECT**

**ALLEGHENY, GREENE AND WASHINGTON COUNTIES,
PENNSYLVANIA**

JULY 2015

(Revised July 14, 2016)

Prepared by:
EQUITRANS
625 Liberty Avenue
Suite 1700
Pittsburgh, PA 15222-3111



HORIZONTAL DIRECTIONAL DRILLING (HDD) CONTINGENCY PLAN

Project Narrative:

HDD is a trenchless excavation method that is accomplished in three phases. The first phase consists of drilling a small diameter pilot hole along a designed directional path. The second phase consists of enlarging the pilot hole to a diameter suitable for installation of the pipe. The third phase consists of pulling the pipe into the enlarged hole. HDD is accomplished using a specialized horizontal drilling rig with ancillary tools and equipment. A properly executed HDD crossing will allow for the pipeline to be installed in a minimally invasive manner.

HDD is proposed for the Equitrans Expansion Project crossing the Monongahela River (H-318 pipeline) in Allegheny and Washington Counties, Pennsylvania and Ten Mile Creek (H-316 pipeline) in Greene County, Pennsylvania. The HDD crossing is the preferred method of construction intended to minimize direct impacts to surface waters.

The inadvertent release (IR) of drilling lubricant is a potential concern when the HDD is used. The HDD procedure for these crossings will utilize Bentonite for Drilling Lubricant.

Purpose:

The purpose of this Contingency Plan is to:

- Minimize the potential for an IR associated with horizontal directional drilling activities.
- Provide for the timely detection of an IR.
- Protect areas that are considered environmentally sensitive (streams, wetlands, other biological resources, cultural resources).
- Provide an organized, timely, and “minimum-impact” response in the event of an IR.
- Provide that all appropriate notifications are made to the PA Department of Environmental Protection (DEP), EQT, and other appropriate regulatory agencies, and that documentation is completed.

Preparation:

Prior to construction, sensitive cultural and biological resources will be protected by implementing the following measures:

- The drilling contractor shall review the site conditions prior to the start of work. The execution of HDD operations and actions for detecting and controlling drilling fluid seepage are the responsibility of the drilling contractor.
- Construction limits will be clearly marked.

- Barriers (18" Fabric Filter Fence or Compost Filter Sock, as per the on-site inspector) will be erected between the bore site and nearby sensitive resources prior to drilling to prevent released material from reaching the resource.
- On-site briefings will be conducted for the workers to identify and locate sensitive resources at the site.
- Provide that all field personnel understand their responsibility for timely reporting of IR's.
- Maintaining necessary response equipment on-site and in good working order.

The primary areas of concern for IR's occur at the entrance and exit points where the drilling equipment is generally at their shallowest depths. The likelihood of an IR decreases as the depth of the pipe increases.

To minimize the potential extent of impacts from an IR, HDD operations will be continuously monitored to look for observable IR conditions or lowered pressure readings on the drilling equipment. Early detection is essential to minimizing the area of potential impact.

Training:

Prior to the start of construction, the Site Supervisor/Foreman shall ensure that the crew members receive training on the following:

- The provisions of this Contingency Plan.
- Inspection procedures for IR prevention and containment equipment materials.
- Contractor/crew obligation to immediately stop the drilling operation upon first evidence of the occurrence of an IR and to immediately report any IRs to EQT's Environmental Coordinator.
- Contractor/crew member responsibilities in the event of an IR.
- Operation of release prevention and control equipment and the location of release control materials, as necessary and appropriate.
- Protocols for communication with agency representatives who might be on site during the clean-up effort.
- Copies of this contingency plan and the contractor's site specific contingency plan will be maintained at the bore site in a visible and accessible location at all times.

Equipment:

The Site Supervisor shall verify that:

- All equipment and vehicles are inspected and maintained daily to prevent leaks of hazardous materials.
- Spill kits and spill containment materials are available on-site at all times and that the equipment is in good working order.
- Equipment required to contain and clean up an IR is available at the bore site during drilling activities.

*Note: It is the drilling contractor's responsibility to provide any IR containment materials that are necessary to respond to the release of drill fluids. The materials listed in this contingency plan are not to be considered inclusive and may require additional equipment depending on site conditions.

Drilling Procedures:

Drilling pressures shall be closely monitored so they do not exceed those needed to penetrate the formation. Pressure levels shall be monitored randomly by the operator. Pressure levels shall be set at a minimum level to prevent IRs. During the pilot bore, maintain the drilled annulus. Cutters and reamers will be pulled back into previously drilled sections after each joint of pipe is added.

Entry and exit pits shall be enclosed by 18" Fabric Filter Fence or Compost Filter Sock and straw bales. A spill kit shall be on-site and used if an IR occurs. If accessible, a vacuum truck shall be readily available on-site prior to and during all drilling operations. Containment materials (straw, fabric filter fence, sand bags, spill kits, boom and turbidity curtain, etc.) shall be staged on-site at a location where they are readily available and easily mobilized for immediate use in the event of an IR. Filter Fence or Filter Sock will be installed between the bore site and the edge of water sources prior to drilling.

*NOTE: If the site is not able to be accessed by a vacuum truck, a pump with sufficient power to convey the released drill fluid to a containment area will be used instead. Along with the pump, an adequate amount of hose, several filter bags, straw bales, sand bags, and 18" Fabric Filter Fence (or Compost Filter Sock) will be kept on site to create a containment area on site.

Once the drill rig is in place and drilling begins, the drill operator shall stop work immediately whenever the pressure in the drill rig drops or there is a lack of returns in the entrance pit. At this time the Site Supervisor/Foreman shall be informed of the potential IR. The Site Supervisor/Foreman and the drill rig operator(s) shall work to coordinate the likely location of the IR. The location shall be recorded and notes made on the location and measures taken to address the concern. Measures will then be taken according to the type of IR (i.e. Terrestrial or Aquatic) as listed below. The Site Supervisor/Foreman will then begin notifying the appropriate parties as listed in the "Contacts" section of this document.

Water containing mud, silt, drilling fluid, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake, flowing stream, or any other water source. The bentonite used in the drilling process shall be either disposed of at an approved disposal facility or recycled in an approved manner. Other construction materials and wastes shall be recycled, or disposed of, as appropriate.

Inadvertent Release (IR) Procedures

In the event of an IR, EQT's Project PM, Environmental Inspector, Chief (i.e. whoever is on site) is required to IMMEDIATELY notify the Project's **EQT Environmental Coordinator (Ms. Stephanie Frazier, 412-553-5798)** with the following information: What occurred; Where it occurred (Terrestrial or Aquatic); When it occurred; Who was responsible; and Quantity released.

Terrestrial IR Procedures:

- Stop work immediately.
- The bore stem will be pulled back to relieve pressure on the IR.
- Isolate the area with hay bales, sand bags, filter sock, or silt fencing to surround and contain the drilling mud per the Appendix B – Typical IR Detail Sheets.
 - o Determine the quantity (gallons) of material released
 - o Determine the distance (feet) to the nearest waterbody
 - o Determine the name of the waterbody
- Contact the appropriate parties as listed in the “Required Notifications” section at the end of this document regarding the following action:
- A mobile vacuum truck (or pump if in an inaccessible area) will be used to pump the drilling mud from the contained area and into either a return pit or (if using a pump) into a filter bag surrounded by 18” Fabric Filter Fence or Compost Filter Sock.
- Once excess drilling mud is removed, the area will be seeded and/or replanted using species similar to those in the adjacent area, or allowed to re-grow from existing vegetation.

After the IR is stabilized, document the IR from discovery through post-cleanup conditions with photographs and prepare an IR incident report describing time, place, actions taken to remediate IR, and measures implemented to prevent recurrence. The incident report will be provided to the EQT Environmental Coordinator within 24 hours of the occurrence.

Aquatic (under water) IR Procedures:

- Stop work immediately.
- The bore stem will be pulled back to relieve pressure on the IR.
- Contact the appropriate parties as listed in the “Required Notifications” section at the end of this document regarding the following actions:
- Isolate the area with hay bales, sand bags, filter sock, or silt fencing to surround and contain the IR per the Appendix B – Typical IR Detail Sheets;
 - o Determine the quantity (gallons) of the IR
 - o Determine the quantity (gallons) that was released to the waterbody
 - o Determine the distance (feet) the material traveled down the waterbody
 - o Determine the name of the affected waterbody
- A mobile vacuum truck (or pump if in an inaccessible area) will be used to pump the drilling mud from the contained area and into either a return pit or (if using a pump) into a filter bag surrounded by 18” Fabric Filter Fence or Compost Filter Sock.
- If the IR affects an area that is vegetated, the area will be seeded and/or replanted using species similar to those in the adjacent area, or allowed to re-grow from existing vegetation.

After the IR is stabilized, document the IR from discovery through post-cleanup conditions with photographs and prepare an IR incident report describing time, place, actions taken to remediate IR, and measures implemented to prevent recurrence. The incident report will be provided to the EQT Environmental Coordinator within 24 hours of the occurrence.

Abandonment and Alternative Crossings

If the HDD fails and EQT decides to abandon the drill hole, alternative crossing methods will be considered. Any alternative crossing will require permitting approvals to be secured before action is taken. Contact the Environmental Coordinator for the Project.

Required Notifications:

In the event of an IR, the following parties are to be notified IMMEDIATELY:
EQT Environmental Department:

Ms. Stephanie Frazier (Primary Contact)

Environmental Permitting - Supervisor
412-553-5798 (office)
412-925-1446 (cell)

Ms. Megan Stahl

Environmental Permitting - Supervisor
412-553-7783 (office)
412-737-2587 (cell)

Mr. John Centofanti

Corporate Director - Environmental Affairs
412-395-3305 (office)
412-417-3729 (cell)

Mr. Paul Friedman

FERC Project Manager
202-502-8059 (office)

Include the following information:

- Time the spill was first identified
- Description of where the spill occurred – Township and County
- Latitude and Longitude of spill
- Size of spill and control measures in place
- Name of affected water resource (if known/applicable)
- Photographs of spill area and corrective measures – when available. (Do not wait to notify EQT until pictures are available. Photo documentation should begin immediately upon detection and continued throughout the duration of the cleanup).

The Environmental Department will contact State and/or Federal environmental agencies (if applicable) for notification requirements in the event of an IR.

As appropriate, in the event of drill bore failure, the Environmental Department will also follow the notification and evaluation procedures in Section 4.4 of the "Equitrans Expansion Project Plan for Unanticipated Historic Properties and Human Remains, Pennsylvania and West Virginia.

References:

This Contingency Plan was adapted from the following websites:

<<http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/cfodocs/greencore.Par.0871.File.dat/PODappH.pdf>>

Equitrans
Equitrans Expansion Project
Allegheny, Greene and Washington Counties, Pennsylvania
Wetzel County, West Virginia



<http://www.csx.com/share/wwwcsx_mura/assets/File/Customers/Non-freight_Services/Property_Real_Estate/Sample_Fraction_Mitigation_Plan_for_HDD.pdf>

http://www.energy.ca.gov/sitingcases/smud/documents/applicants_files/Data_Response_Set-1Q/APPENDIX_C_FRAC_OUT_PLAN3.PDF

Attachment 4
Unanticipated Discovery of Contamination Plan

Unanticipated Discovery of Contamination Plan

Unanticipated Discovery of Contamination Plan Introduction

The purpose of this Unanticipated Discovery of Contamination Plan (Plan) is to provide work, investigation and reporting procedures for responding to the unanticipated discovery of contamination in soil, groundwater or sediment during excavation, construction or maintenance activities associated with construction of the Equitrans Expansion Project.

Consistent with this purpose, the objectives of this Plan are to protect the health and safety of project personnel and the environment and to prevent the spread of contamination during and after an unanticipated discovery of contamination.

The greatest potential for the discovery of unanticipated contamination will occur during the excavation of the pipeline trench. If any project personnel detects potential contamination such as:

- Odor;
- Visible staining on soil;
- Sheen on ground or purge water;
- Unidentified underground service tank;
- Potential cultural resources, including human remains; etc.,

the following response plan will be executed.

Unanticipated Discovery Response Plan

Stage 1 – Suspend Work Activities

All construction and/or maintenance work in the immediate area of the discovery shall stop. Personnel shall move to upwind areas as necessary.

Stage 2 – Identify Immediate Threats

If an immediate threat is detected, emergency response (i.e., 911) shall be notified. The area shall be evacuated.

Stage 3 – Identify and Secure Area

If safe to do so, the area immediately around the potential contamination shall be secured with safety fencing or flagging. Site personnel shall remain onsite to restrict access as appropriate.

Stage 4 – Conduct Notifications

Appropriate EQT environmental professionals and officials shall be notified of the potential contamination as described in the PPC plan. It shall be the decision of the EQT environmental professional (TBD) to determine environmental agency or public official notification requirements.

Stage 5 – Discovery Documentation Protocol

An appropriate EQT employee or designee will document the unanticipated contamination utilizing the attached Worksheet 1. Worksheet 1 includes instructions for the appropriate EQT employee or designee to record the site name, locations, and how suspected contamination was determined. The EQT employee or designee will coordinate with the construction contractor(s) who identified the contamination to assist in completing Worksheet 1.

Stage 6 – Remedial Action Planning

An onsite meeting (if appropriate) will be conducted among site personnel, EQT environmental professionals, and any appropriate contamination response contractors to determine remediation requirements and methodologies. If remediation activity is appropriate, an environmental consultant (if appropriate) should be contacted to assist with the remedial activity. Remedial activities should be conducted according to the following general sequence of events. This is a general plan and is not meant to apply to all contamination situations. A more robust, site-specific remedial action plan should be completed by an environmental consultant prior to completing remedial activities.

Step 1: Sampling – Representative samples should be collected and submitted to an environmental laboratory for analysis and/or waste classification. Results of this analysis may dictate notification requirements. An environmental consultant can assist in the determination of these requirements.

Step 2: Remedial Action Determination – Following laboratory analysis, the EQT environmental professional and/or the environmental consultant will evaluate the analysis results and, if appropriate, identify the type of remediation (in-situ, removal, etc.) to be completed.

Step 3: Remedial Action – EQT will mobilize an appropriate contractor and remediation activities will be conducted. Any soil and/or groundwater suspected of containing contamination will be segregated from clean soil and/or water using plastic sheets, fractionation tanks, or other appropriate methodologies. Containers will be clearly labeled. Known hazardous wastes will be labeled and separated with orange construction fencing.

Step 4: Disposal – Wastes will be disposed of properly at a permitted facility. EQT environmental professional or its environmental consultant will determine disposal requirements.

Stage 6 – Record Keeping

A record of the sequence of events from the beginning (unanticipated discovery) to the end (disposal) of the incident will be recorded and kept on file with the EQT environmental professional in accordance with all mandated record keeping requirements.

Worksheet 1 – Unanticipated Discovery of Contamination Documentation

Instructions: Complete this worksheet to document an unanticipated discovery of contamination event. Use a separate sheet (copy) for each occurrence.

A. Site Name, Physical Location, and Milepost

B. How Suspected Contamination was Determined (odor, stain, sheen, etc.). Include photographs as appropriate.

C. List dates, times, and officials notified

Attachment General-3

Preparedness, Prevention, and Contingency and Emergency Action Plan, Equitrans
Expansion Project, H-316, H-302, M-80, H-158 (Greene County, Pennsylvania)

**PREPAREDNESS, PREVENTION, AND CONTINGENCY
AND EMERGENCY ACTION PLAN**

PREPARED FOR THE

Equitrans, L.P.

Equitrans Expansion Project – H-316, H-302, M-80, H-158

SITUATED IN

**Franklin, Jefferson, and
Morgan Township,
Greene County
Pennsylvania**

**February 2016
Revised July 2016**

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Figure 1 – Project Location Map

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Attachment 1 – Emergency Contact Information

Attachment 2 – Material and Waste Inventory

Attachment 3 – Horizontal Directional Drilling Contingency Plan

Attachment 4 – Unanticipated Discovery of Contamination Plan

Section 1 - General Information

1.1 Objective

This Preparedness, Prevention, and Contingency (PPC) Plan, Spill Prevention, Control, and Countermesure (SPCC) and Emergency Action Plan (EAP) (Plan) has been prepared for Equitrans, LP (Equitrans) for the proposed Equitrans Expansion project, located in Forward Township, Allegheny County, and Union Township, Washington County PA. A facility is subject to the SPCC Rule if the total aboveground storage capacity of oil and oil products exceeds 1,320 gallons, or if the underground storage capacity exceeds 42,000 gallons, and if, because of its location, the facility could reasonably be expected to discharge oil into navigable waters of the United States. Oil-filled bulk storage containers and oil-filled operational equipment with a capacity of less than 55 gallons, permanently closed bulk storage containers, and motive power equipment are not included in the total storage capacity of the facility and are exempted from requirements under the SPCC Rule.

This plan describes the procedures to be followed by employees and contractors to prepare for, prevent, control, and respond to an emergency or spill.

This PPC/EAP and SPCC has been prepared in accordance with Commonwealth of Pennsylvania Department of Environmental Protection (PADEP) Division of Oil and Gas, *Oil and Gas Management Practices and Guidelines for the Development and Implementation of Environmental Emergency Response Plans. I.D.:400-2200-001*, and the Environmental Protection Agency *Spill Prevention Control and Countermeasures guidance*. This plan provides information and procedures in accordance with state and federal regulations regarding means to prevent and minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden releases of toxic, hazardous or other polluting materials to air, water, or land.

For purposes of this plan the following definitions apply:

- A *spill* is defined as any unauthorized spill or leak of a hazardous material or oil.
- A *significant spill* is defined in the *Oil and Gas Management Practices and Guidelines for the Development and Implementation of Environmental Emergency Response Plans* as including but not limited to releases of oil and hazardous substances in excess of reportable quantities under Section 3111 of the Clean Water Act (40 CFR 110.10 and CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; 40 CFR 302.4).
- *Hazardous material* is defined as any substance or material that could adversely affect the health or safety of the public or environment.
- A *hazardous waste* is generally defined as dangerous waste that poses a substantial present or potential hazard to human health or the environment. 40 CFR §261.3 provides in-depth definitions of hazardous waste.
- An *emergency* is defined as a significant injury requiring medical treatment beyond the scope of on-site personnel training.

EMERGENCY CONTACT INFORMATION IS PROVIDED IN ATTACHMENT 1 OF THIS PLAN. FOLLOW PROPER NOTIFICATION PROTOCOL IN THE EVENT OF ANY SPILL OR EMERGENCY ON-SITE.

1.2 Site Information

Site Name: Equitrans Expansion Project – H-316, H-305, M-80, H-158, Redhook Compressor Station (Refer to **Figure 1** for project location map)

The proposed project consists of the installation of four pipelines, and new above ground facilities. The H-316 natural gas pipeline will be 1-30” natural gas transmission pipeline, approximately 3 miles long and will move gas from the new Redhook Compressor Station to Equitrans’ existing H-302 pipeline for delivery to Texas Eastern or south on Equitrans’ H-302 pipeline to MVP. Also in Greene County, the project involves the installation of three shorter pipelines, the M-80, the H-158, and the H-305 pipelines. The M-80 segment is a 6-inch pipeline that currently moves gas to the Pratt Compressor Station, but will be required to be extended to move gas to the Redhook Compressor Station once it is commissioned. The H-158 segment is a 12-inch pipeline that also currently moves gas to the Pratt Compressor Station, but will be required to be extended to move gas to the Redhook Compressor Station once it is commissioned. The H-305 segment is a new 24-inch pipeline extension, approximately 540 feet in length that will move gas from the Redhook Compressor Station to Equitrans’ existing H-305 pipeline located at the existing Braden Run Interconnect with Texas Eastern. New above ground facilities for this portion of the project include the Redhook Compressor Station and the H-302 tie-in.

Construction activities will involve constructing a tie-in and compressor pad, clearing and grubbing within the right of way, trenching, pipe installation, site restoration and post-construction stormwater management.

Site Address and Directions to Site: Start of the project (Redhook Compressor Station) is off of Braden Run Rd, from PADEP SWRO – take I-376W to I-79S. Take exit 14 for PA-21W and merge toward Waynesburg. Turn right onto Elm Dr. Turn right onto PA-188E. After 1.9 miles, turn left onto Braden Run Rd. The start of the project, Redhook Compressor Station, will be on the right.

The end of the project (H-302 Tie-in Launcher/Receiver) is off Crayne School Rd, from PADEP SWRO – take I-376E to I-79S. Take exit 14 for PA-21E to Carmichaels/Masontown and turn left onto PA-21E. Turn left onto Ridge Rd/Trail 5621. Turn right onto Ridge Rd. Turn left onto Baker Rd. Continue onto Crayne School Road. The end of the project, H-302 tie-in will be on the left.

1.3 Plan Availability

A copy of this plan will be available in the following locations:

- On-site in the project mailbox, job trailer, or with on-site coordinator.
- Office of the Environmental Coordinator

1.4 Plan Revisions

The PPC/EAP and all site operations will be reviewed at least once per year to assure that the plan is consistent with applicable state and federal regulations. The plan will also be revised if:

- changes in site operations occur that materially increase the potential for fires, explosions or releases of toxic or hazardous constituents or change the response necessary in an emergency,
- routine inspections determine that the plan needs to be revised,
- the plan fails to achieve the objective stated in **Section 1.1**,
- applicable PADEP or federal regulations are revised,
- the list of personnel who are responsible for implementing or maintaining this plan or emergency equipment changes, or
- as required by the PADEP.

When plan changes are required, the plan will be revised within 30 days of identifying the need for a revision. Plan changes will be implemented in a timely manner, but in no case later than 90 days. Notifications of plan changes or additions will be made to all personnel or groups listed in **Attachment 1**. The on-site copy of this plan will have appropriate changes made with dating and initialing labeled on this copy of the plan.

1.5 Plan Implementation and Organization

In the event of an emergency situation which endangers public health and safety or the environment, the provisions of this plan will be immediately implemented. The following sections shall be referenced for additional information on plan implementation and organization for the project:

- **Section 2.0** – Plan team members and associated responsibilities.
- **Section 3.0** – Pertinent site-specific information.
- **Section 4.0** – Preventative measures
- **Section 5.0** – Countermeasures
- **Section 6.0** – Incident notification information

Section 2 - Plan Team and Responsibilities

2.1 PPC/EAP Team

The PPC/EAP Team consists of the following persons and chain of command (in order of priority):

Name/Title	24 Hours A Day
Dan Truman Equitrans, LP Emergency Coordinator	Office: 304-627-6432 Cell: 304-844-2174
Russell Grooms Equitrans, LP Safety Coordinator	Office: 724-579-0731
Dave Durofchalk Equitrans, LP Senior Environmental Coordinator	Office: 412-395-5583
Stephanie Frazier Permitting Supervisor	Office: 412-553-5798
Jeannine Hammer Equitrans, LP Environmental Manager of Performance and Compliance	Office: 412-395-2553 Cell: 412 709-9804

Responsibilities of the PPC Plan Team include:

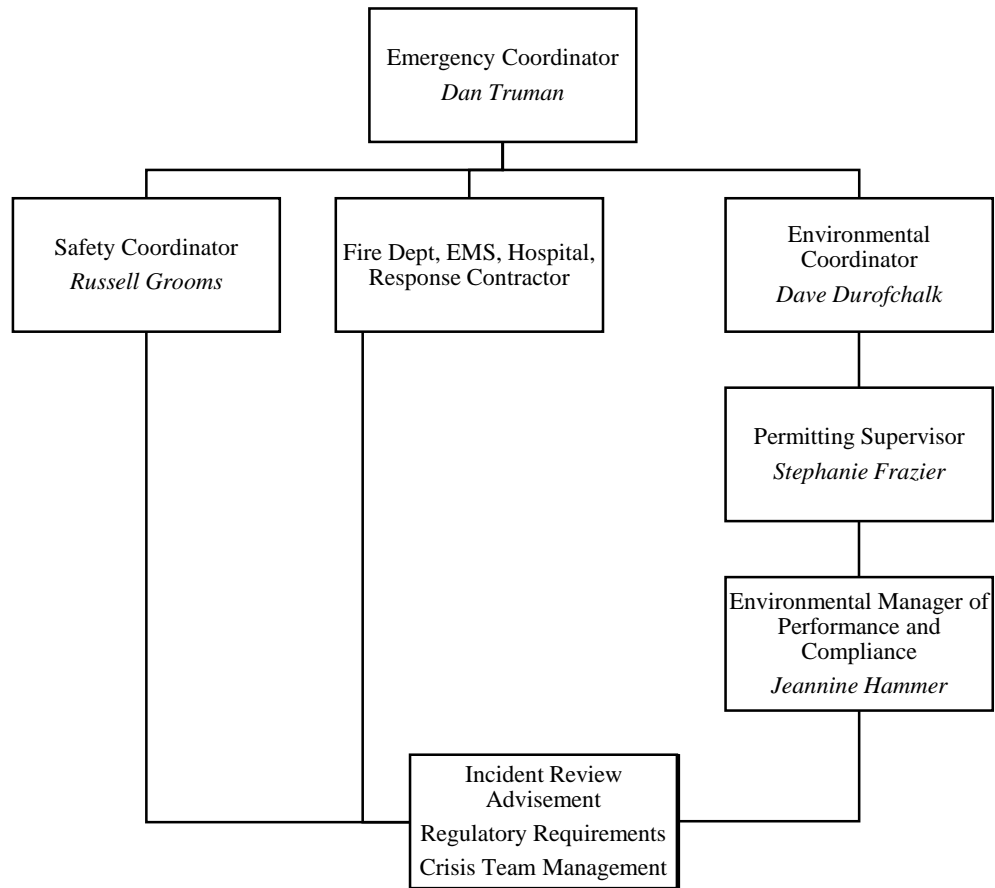
- Maintain familiarity with the contents of this plan.
- Provide training so that on-site personnel are familiar with the contents of this plan.
- Perform spill prevention measures specified in **Section 4.0**.
- Maintain records of spill prevention efforts such as inspections and preventive maintenance as described in **Section 4.0**.
- Implement emergency countermeasures presented in **Section 5.0** under the direction of the emergency coordinator or designee.
- Submit a written report to the appropriate regulatory agency and within the proper timeframe of a significant spill.
- Ensure that all Equitrans field employees are familiar with the plan, and understand how to react in case of an emergency

All on-site personnel shall be made familiar with the contents of this Plan through regular training and periodic safety meetings. Proper training will help all on-site personnel to understand proper protocols in the event of an inadvertent spill or emergency.

2.2 Plan Chain of Command

The plan chain of command defines on-site emergency personnel and members of the PPC/EAP Team that shall be contacted in the event of an emergency. Team members shall be familiar with the order of priority for emergency notifications.

Figure 2.2. Plan Chain of Command



2.3 Emergency Coordinator

The emergency coordinator is responsible for implementing the plan. Should the emergency coordinator not be available on-site, he/she shall designate a member of the PPC/EAP/SPCC team that is familiar with the contents of the plan to act as emergency coordinator in his/her stead.

In the event of an emergency, responsibilities of the emergency coordinator include:

- Activate any alarms and notify personnel as applicable.
- Coordinate all emergency response efforts and establish a safe area command center.
- Take all reasonable measures to ensure that fire, explosion, emission, or discharge do not occur, reoccur or spread to other materials or wastes at the installation. These measures include stopping work and operations, collecting and containing released materials and wastes, and removing or isolating containers.
- Notify appropriate emergency response agencies as specified in **Section 6.0** and listed in **Attachment 1**.
- Notify members of the PPC/EAP Team according to chain of command listed in **Section 2.1** and **Section 2.4**.

- Identify the character, exact source, amount, and extent of released material.
- Assess possible hazards to human health or the environment (including direct and indirect effects).
- Take all reasonable measures and commit resources needed to carry out the plan.
- Ensure that site operations underway during the emergency response are properly monitored and controlled.
- Ensure that cleanup residues are properly handled and disposed.

Further details concerning countermeasures and emergency contacts are contained within **Section 5.0** and **Section 6.0** of this plan.

2.4 Plan Administrator

The environmental coordinator or designee is responsible for developing and maintaining the Plan and will be referred to as the plan administrator:

Responsibilities of the plan administrator include:

- Ensure that the plan is reviewed and updated as required.
- Ensure that the plan is distributed as required.

Section 3 - Site Activity Description and Potential Pollutants

3.1 Site Activity Description

The proposed project consists of the installation of four pipelines, and new above ground facilities. The H-316 natural gas pipeline will be 1-30" natural gas transmission pipeline, approximately 3 miles long and will move gas from the new Redhook Compressor Station to Equitrans' existing H-302 pipeline for delivery to Texas Eastern or south on Equitrans' H-302 pipeline to MVP. Also in Greene County, the project involves the installation of three shorter pipelines, the M-80, the H-158, and the H-305 pipelines. The M-80 segment is a 6-inch pipeline that currently moves gas to the Pratt Compressor Station, but will be required to be extended to move gas to the Redhook Compressor Station once it is commissioned. The H-158 segment is a 12-inch pipeline that also currently moves gas to the Pratt Compressor Station, but will be required to be extended to move gas to the Redhook Compressor Station once it is commissioned. The H-305 segment is a new 24-inch pipeline extension, approximately 540 feet in length that will move gas from the Redhook Compressor Station to Equitrans' existing H-305 pipeline located at the existing Braden Run Interconnect with Texas Eastern. New above ground facilities for this portion of the project include the Redhook Compressor Station and the H-302 tie-in.

Construction activities will involve constructing a compressor pad and tie-in pad, clearing and grubbing within the right of way, trenching, pipe installation, site restoration and post-construction stormwater management. An erosion and sediment (E&S) control plan has been developed for the site to prevent erosion to disturbed soil surfaces and reduce sedimentation to surrounding surface and ground water.

3.2 Material and Waste Inventory

All materials stored on-site shall be properly marked and kept in US Department of Transportation approved containers. The **contractor** shall identify and list all sources of potential large spills, including tank overflow, rupture, or leakage. MSDS sheets must be included for all containers **larger than 660 gallons or for locations that have a total capacity of 1,320 gallons** that contain oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with waste as required in Code of Federal Regulations, Title 40, Part 112 (40 CFR 112) within the attached Tables.

Table 3.2 has been included on the following pages to provide an inventory of materials typically expected to be on a construction site of this type, chemicals within these materials that are potential pollutants, and BMPs associated with each material type to mitigate risk for water resources pollution. The **contractor** shall complete and maintain **Attachment 2** for Material and Waste Inventory. Safety Data Sheets (SDS) for materials shall be maintained on-site as necessary. Waste generated on-site will be characterized, properly stored, and disposed of at an approved facility.

Table 3.2. Potential Pollutant Sources and Best Management Practices

Material/Chemical	Potential Pollutants	Best Management Practice
Cleaning Solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Glue, Adhesives, Epoxy Powders	Polymers, epoxies	Disposal of used containers must follow manufacturer specifications. Proper application (see manufacturer recommendations). Storage of products: Properly sealed containers indoors, on a pallet, under shelter, tarp or inside a vehicle tool cabinet.
Concrete, Concrete Washout Water	Limestone, pH	Designated concrete washout area on ROW. Do not clean out hopper or chute on to ground or in drainage channels. Concrete washout area must be within a bermed containment area. It must be cleaned out when it reaches a 75% capacity. Recommend cleanout at 50%. All wash out areas will be in the permanent ROW.
Wood Preservatives	Stoddard solvent, petroleum distillates, arsenic, copper, chromium; creosote; pentachlorophenol	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Gasoline / Diesel Fuel	Benzene, ethyl benzene, toluene, xylene, MTBE	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment. All on-site vehicles will be routinely inspected for leaks and drips.

Material/Chemical	Potential Pollutants	Best Management Practice
Kerosene	Coal oil, petroleum distillates	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Antifreeze/Coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment. All on-site vehicles will be routinely inspected for leaks and drips.
Detergents	Phosphorous	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Sediment	Nutrients, suspended solids, sediment	Sediment erosion and sedimentation on-site should be controlled by structural and non-structural BMPs. Structural BMPs can include but are not limited to: sediment control logs, erosion control blankets, riprap, earth berms, and silt fence. Non-structural BMPs can include but are not limited to: seed and mulch, exposure time of disturbed soils, education of on-site personnel.

3.3 Pollution Incident History

No major pollution incidents have occurred on Equitrans sites.

3.4 Implementation Schedule for Plan Elements not Currently in Place

There are no known elements of this plan that are not currently in place. Certain projects may require additional measures depending on scope of activity. Additional items that may need to be implemented include but are not limited to:

- Erosion and sediment control plan and applicable PADEP permits
- Post-construction stormwater management plan and applicable PADEP permits
- Inadvertent release plan for boring projects (refer to Attachment 3)
- Additional chemical and material management measures

Section 4 - Spill Prevention and Response

4.1 Pre-release Planning

The Contractor must assess the materials kept on-site and note areas that may become contaminated should a spill occur. Preventative measures listed below should be considered when storing potentially hazardous chemicals or materials on-site:

- Store chemicals and materials in proper US DOT approved totes/containers
- Provide secondary containment as required
- Store potential pollutants in areas where they will not be readily transported toward sensitive water resources in the event of a spill
- Note any emergency shutoff valves on equipment or storage containers that will be used in the event of a spill

4.2 Material Compatibility

Materials must be stored in dedicated containers or totes and used only for the intended chemical storage. Storage containers should not be reused with a different chemical if there is any chance of a reaction occurring. If the reactivity between chemicals is unknown, they should not be mixed or stored in the same container until it has been verified that no harmful reaction will take place.

Thorough cleansing of chemical storage containers should be standard practice to ensure that there is no residual incompatible with the next or later materials used. Any available National Fire Protection Agency (NFPA) placards should be referenced for hazardous materials to identify potential reactivity.

4.3 Inspection and Monitoring Program

During construction employees are required to check for the following conditions: spills and leakage of fuels, lubricants or any other contaminants; visible soil contamination; malfunctioning equipment; on-site traffic accidents; storm water contamination; or any other condition which could lead to contamination of air, soil, or water. If an abnormality occurs, the employees must contact one of the designated Team members listed above in **Section 2.1** of this Plan.

Inspections shall occur on a daily and weekly basis as described below:

Daily Inspections: An Equitrans employee, or his/her designee, will conduct a visual inspection of the project area each day. The purpose of the inspection is to identify housekeeping and preventative maintenance needs. Issues of potential concern will be brought to the attention of the responsible person in charge immediately following the inspection. A log of any issues identified during daily inspections shall be kept on-site with the copy of the PPC/EAP and E&S Control Plan.

Weekly Inspections: An Equitrans employee, or his/her designee, shall conduct a weekly inspection of the site and log findings on the standard PADEP Inspection Form 3150-FM-BWEW0083 to record their findings. The standard form should be used for E&S BMP inspection, and any spills or potential pollution issues should be noted on Item 8 of the inspection form.

4.4 Preventative Maintenance

Preventative maintenance measures for the expected scope of work are listed below:

- Construction Activities
 - During construction, proper BMPs shall be utilized to prevent stormwater runoff coming into contact with potential pollutants including construction materials, fuel, and construction equipment. Equipment and material storage areas should be located in areas where the potential for contact with water resources is at a minimum. Furthermore, risk for pollution from erosion and sedimentation will be mitigated through the use of PADEP approved erosion and sediment control BMPs.
- Materials Handling
 - Materials to be stored in the project area should be located in areas that are protected from significant surface flows to prevent transmission of potential pollutants to surface waters.
 - Hazardous materials, including chemicals, fuels, and lubricating oils, shall not be stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas.
 - When unique conditions require refueling within 100 feet of the banks of a waterbody, a wetland boundary, or within any municipal watersheds, this activity must be approved in advance by the Environmental Inspector following a review that no reasonable alternatives exist and incorporation of any necessary additional emergency response measures. At a minimum, the review will consider the environmental risks of relocating equipment to an authorized refuel/lubrication area verses risks involved with refuel/lubrication in-place. Additional emergency response measures include availability of absorbent materials or other secondary spill containment materials for immediate application prior to commencing refueling activities.
 - Any potential pollutants stored on-site shall be kept covered with proper secondary containment to prevent water resources impacts.
 - Any collected stormwater within secondary containment should be inspected for signs of pollution (sheen, discoloration and other signs of chemical pollution). If no evidence of pollution is noted, collected water will be allowed to evaporate. Where possible pollution is discovered within secondary containment, collected stormwater should be properly disposed of offsite by hauling to a state approved facility.
- Equipment Cleaning and Maintenance
 - Cleaning and maintenance of equipment should take place away from water resources and within designated areas of adequate containment to prevent pollutants from entering water resources. Overnight equipment parking and refueling shall occur at least 100 feet from a waterbody or wetland boundary or additional emergency response measures include availability of absorbent materials or other secondary spill containment materials must be in place for immediate application prior to commencing activities.
- Pipelines Carrying Contaminants
 - Testing will be conducted prior to the transport of natural gas to ensure pipeline integrity.

- Sumps/Tanks Carrying Contaminants
 - Sumps and Tanks containing potential pollutants shall be located at least 100 feet away from existing water resources and secondary containment should be provided.
 - Single-walled tanks shall be provided with temporary secondary containment that will hold at least 100 percent of the tank capacity of the largest tank inside the containment area.
 - Precipitation shall be inspected first for the evidence of oil, including a sheen, or other containments. If a sheen or other indicators of oil or contamination is present, then the material shall be collected for property disposal off site. Any precipitation shall be removed from the containment area to maintain the available containment volume at 110 percent of the volume of material stored.
 - Tanks/Containers and secondary containment drains shall remain closed when not in use.

4.5 Housekeeping Program

General Site Housekeeping:

Site housekeeping practices shall be implemented to provide neat storage of materials on-site in order to reduce the potential for materials to be exposed to stormwater runoff and to ensure that debris is not left at the site upon project completion.

Workspaces shall be inspected at the end of each workday and any trash, debris, or other discarded materials should be properly disposed of in designated roll-off bins or similar container. The site should also be inspected for accumulated soils at BMPs and also at site entrance/exits. Any collected soils should be placed at a designated area on-site and stabilized with seed and mulch upon reaching final grade. Soils deposited on roadways shall be swept using hand tools or a street sweeping machine (if permissible) and soils shall be returned to the project area. No soils should be swept into roadside ditches or storm inlets.

An inspection schedule for general housekeeping should be defined at the beginning of the project and employees should be informed of proper practices and pollution prevention concepts.

Fuel and Chemical Handling

Potentially hazardous materials such as fuel and oil for equipment and chemicals associated with the project should be properly stored on-site and secondary containment should be provided at storage locations to prevent release of harmful fluids to the environment.

Drip pans or similar methods should be provided during equipment fueling to contain leaks. Any waste occurring during refueling or maintenance should be stored in proper containers and taken off site for disposal or recycling. Overnight equipment parking and refueling shall occur at least 100 feet from a waterbody or wetland boundary.

When unique conditions require refueling within 100 feet of the banks of a waterbody, a wetland boundary, or within any municipal watersheds, this activity must be approved in advance by the Environmental Inspector following a review that no reasonable alternatives exist and incorporation of any necessary additional emergency response measures. At a minimum, the review will consider the environmental risks of relocating equipment to an authorized refuel/lubrication area versus risks

involved with refuel/lubrication in-place. Additional emergency response measures include availability of absorbent materials or other secondary spill containment materials for immediate application prior to commencing refueling activities.

Any major maintenance projects on equipment should be carried out at an offsite location.

Should a spill occur, contaminated soils shall be excavated and stored in lined containers for disposal. Proper reporting and record keeping procedures consistent with the applicable agency standards shall be utilized in the event of a spill. Vehicles and other equipment should be inspected regularly for leaks and required maintenance should be completed immediately. The following guidelines should be observed for fuel and chemical storage on-site:

1. Product containers should be clearly labeled, inventoried, and Safety Data Sheets (SDS) shall be kept on site.
2. Store fuel and chemicals away from construction traffic to reduce potential for accidental spills.
3. Any fuel or chemical storage tanks/drums should be kept within secondary containment.
4. Monitor storage areas regularly for leaks and check secondary containment for evidence of leaks (sheen, discoloration, etc...)

4.6 Security

While site security is not a major concern given the scope of the project, procedures should be followed at the site to prevent accidental or intentional entry that could result in a violation of Departmental regulations, or injury to persons or livestock. The following procedures should be considered in relation to site security:

- Locate equipment and materials away from any area where the public can easily gain access.
- Provide fencing as necessary or store equipment and materials inside of locked, fenced areas where possible.
- Provide locks on storage tank drain valves, fuel dispensers, etc...
- Install safety fence to deter foot traffic in active work areas.
- Provide traffic control as necessary to deter unauthorized public travel in work areas.
- Provide proper flagging and signage when needed for entering and exiting public roadways.

4.7 External Factor Planning

Severe weather events are the main external factor considered to cause a potential issue for the proposed project. In the event of extremely severe weather including but not limited to thunderstorms, tornadoes, hail storms, and/or severe snowstorms; construction activity shall cease and on-site personnel shall take proper cover until the weather event has ceased. Personnel shall monitor the weather to provide early warning of incoming severe weather.

For any precipitation event, severe or minor, there is an increased risk of pollution from accelerated erosion and sedimentation, as well as the potential for increased pollutant transport should a spill occur during a precipitation event. Proper inspection of E&S BMPs and material or chemical storage areas prior to and within 24 hours following a rain event will mitigate risks associated with stormwater runoff contacting disturbed or contaminated soils. Additional external factors may be present and should be noted by the on-site coordinator as they become evident. Employee and public safety shall be considered first priority in the event of any emergency.

4.8 Employee Training Program

The emergency coordinator is responsible for the initiation of all periodic training sessions that will include no less than the following:

- Implementation of the spill prevention and response plan
- Adopting effective “Good Housekeeping” practices
- Preventative maintenance
- Materials management BMPs
- E&S Control/Storm Water Pollution Prevention

Personnel will be trained, at least annually, in good housekeeping techniques and preventive measures to control the release of contaminants, along with other pertinent safety topics. Contractors or temporary personnel will be apprised of site operation and design features that are intended to prevent discharges or spills from occurring. New employees, who will be involved with response to any spill and/or contamination, will be trained in the applicable pollution control response methods. New employees will also be trained on the contents of the Plan and copies will be made available to them for reference. Records are to be kept by the emergency coordinator.

Section 5 - Countermeasures

5.1 General

Employees must report immediately to the designated individuals listed in **Section 2.1** if any spill, incident/emergency or potential contamination problem has occurred.

During an emergency, operations will cease. Qualified personnel will direct response efforts with available equipment and personnel until emergency assistance arrives.

5.2 Countermeasures to be Undertaken by Facility

During construction a supply of spill response materials will be stored on-site. Personnel should be familiar with the following general conditions relative to providing countermeasure support:

- Smoking at the active construction areas will be prohibited.
- Follow housekeeping program listed in **Section 4.6**
- Refer to **Attachment 1** for local fire department and hospital emergency contact and notification information.
- Tools used for spill cleanup should be cleaned and contaminated water shall be properly disposed. Incidents should be properly documented with all pertinent information and kept on record.

In the event of an accidental spill or release of hazardous materials that may have an adverse impact to people, property, or the environment, the following procedures will be implemented:

- Notify emergency coordinator if a spill has occurred and request instructions for forward proceedings.
- The emergency coordinator will inspect the site to identify the type of materials being released and will assess the probability of environmental damage based on the location of the spill and other factors.
- Upon being notified of a spill or emergency, the chain of command personnel shall notify proper regulatory agencies as necessary.
- Take the action necessary to contain and/or mitigate possible environmental damage.
- Contain the leak and/or spill with absorbent material, diking material, (or soil, if necessary).
- Equipment from the operation will be mobilized to remove contaminated materials and place them in a suitable container for conveyance to a certified disposal site.
- Perform any testing on materials from the clean-up (needed to determine final destination of waste materials) and submit to appropriate regulatory agency.
- Complete an internal spill report for the incident. Contact a waste contractor to arrange for the removal of contaminated absorbent materials. Arrange for testing of wash water to determine how it can be safely disposed of.
- When the incident is corrected, the on-site coordinator will report the spill to the Environmental and Safety Coordinator and record this information in the daily operating logs.

Contractors Utilized for Transportation of Wastes and Waste Management Facilities

LAD Liquid Assets Disposal Inc.

226 Rankin Road

Washington, PA 15301

724-350-2760; 724-222-6080; 724-229-7034 (fax)

Ohio County/Wheeling

United States Environmental Protection Agency (USEPA) Permit #WV 0014

Tri County Waste Water Management, Inc.

1487 Toms Run Road
Holbrook, PA 15341
724-627-7178; 724-499-5647
Greene County/Waynesburg
Permit #TC-1009

5.3 Countermeasures to be Undertaken by Contractors

Equitrans has made arrangements with the following contractors to respond as necessary to significant spills:

- **McCutcheon Enterprises**
250 Park Road
Apollo, PA 15613-8730
412-568-3623
- **Weavertown Environmental Group**
2 Dornington Rd
Carnegie, PA 15106
724-746-4850
- **Minuteman Environmental Services**
1561 Roy Furman Hwy
Carmichaels, PA 15320
800-905-7788 (24-hour)

Combined Capabilities: Mobile vacuum equipment, mobile storage tanks, remediation systems and service, transportation services, waste management Emergency Response Trailers, excavation equipment, Traffic Control.

5.4 Internal and External Communications

Employees must provide notification by telephone immediately according to the chain of command listed in **Section 2.1** and **Section 2.2** if any spill, incident/emergency or potential contamination problem has occurred. If the first person on the list is not available, the employee shall continue through the chain of command phone list until proper contact has been established.

An employee providing notification of a spill or emergency must continue going through the call list until an actual person has been contacted. Telephone messages may be left as necessary, but leaving a message does not fulfill the notification requirements of this plan.

During any shift, the emergency coordinator may be contacted either by cell phone or word of mouth but verification of the contact must be assured prior to considering the notification requirement met. During weekends and holidays, emergency coordinators should be called on their mobile phones.

In cases of fire or injury, the local fire, Emergency Management Service (EMS), and police departments should be notified before any other actions are taken.

A complete Notification List can be found in **Attachment 1** of this document.

5.5 Evacuation plan for Installation Personnel

In the event of a fire or emergency on-site, personnel will rally near the access road or at the site entrance. Once a person has been accounted for, he or she may be directed to evacuate the premises entirely by the emergency coordinator or the highest ranking person on location according to the chain of command. It is the responsibility of the emergency coordinator to account for all individuals on the site and direct emergency personnel to the last known location of any missing person.

5.6 Emergency Equipment Available for Response

Basic spill cleanup materials shall be stored in the on-site totes or kits. Absorbent booms, socks, pillows, as well as additional equipment are available on location for initial response to emergencies (hand tools, fire extinguishers, and cleaning supplies). Response Trailers are located at various geographic regions and available 24/7. In addition to spill response kits, the following items shall be available for response to an emergency:

Fire Extinguisher(s): Fully-charged fire extinguishers will be readily available on-site.

First Aid Kit(s): In the case of on-site personnel accidents or injuries, first aid kits shall be available to provide initial response to the injured person. First aid may be administered by qualified individuals on-site if extent of injuries permits. In case of more serious injuries, emergency response personnel will be notified (paramedics for transport to the local hospital). General first aid procedures should be followed until emergency medical assistance arrives.

Section 6 - Emergency Spill Control Network

6.1 Arrangements with Local Emergency Response Agencies and Hospitals

Attachment 1 lists contact information for the local and regional emergency response network available to support Equitrans in the event of a medical emergency at the site. **Figure 2** shows direction from the project site to the nearest hospital.

Washington Health System-Greene Hospital will provide or assist gaining access to all emergency medical services. This facility does have an emergency medical unit.

6.2 Content of Verbal Notification

Verbal notice of an emergency or spill to regulatory agencies, and designated company individuals should include as much of the information listed below as is known at the time of notification.

- Location and source of the release
- Chemical name or identity of any substance involved in the release and whether the substance is a hazardous substance; i.e., the Chemical Abstract Service ID number (CAS #) as listed in the material's SDS
- Estimate of the quantity of the substance released into the environment.
- Time of the release
- Date of the release
- Environmental medium or media into which the substance was released (soil, storm drain, surface waters)
- Duration of the release
- Proper precautions to take as a result of the release, including evacuation and other proposed response action
- Any known, anticipated or chronic health risks associated with the release and, if known to the informant, advice regarding medical attention necessary for individuals exposed to the substance released
- Name and telephone number of the person or persons to be contacted for further information
- Other information as required

Notification shall not be delayed in order to research missing information. As further information on the release or emergency is discovered it should be relayed to the proper designated individual.

6.3 Formal Incident Reporting

To standardize the procedures for Equitrans employees and contractors, and simplify the In-Field decision making process, all spills, leaks, releases or injuries **must be reported immediately** to the Equitrans Environmental and Safety Department. Appropriate reporting, by Equitrans to relevant Authorities will be conducted as per applicable regulations. Potential reports that may need files depending on spill character and quantity include but are not limited to:

- USEPA Report for Spills and for Reportable Quantities.
- PADEP Spill Report for spills affecting streams
- PA Fish and Boat Commission
- Greene County Emergency Management

Reportable quantities for hazardous substances are set forth in 40 CFR 110 and 117. The reportable quantities for the hundreds of hazardous substances listed range from as little as one (1) pound to as much as 5,000 pounds, depending on the substance. Oil which is released in sufficient quantity to form a film or sheen on, or discoloration of, the surface of the water or the shoreline, or which deposits a sludge beneath the water surface on the shoreline is reportable. "Oil" includes but is not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes. A "sheen" is defined as an iridescent appearance on the surface of the water.

The Regional USEPA Administrator shall be notified within 60 days whenever a facility regulated under 40 CFR 112 has discharged more than 1,000 gallons of oil due to a single spill, or has twice within any 12-month period discharged oil to water in volumes of 42 gallons or greater.

The USEPA has defined "significant spills" to include releases within a 24-hour period of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act and Section 102 of CERCLA. The judgment of what is a "significant" spill must be made on a case-by-case basis by the site operator.

PA Spill Reporting Requirements Summary			
Kind of Spill	Discharge Location	Reportable Quantity	Regulatory Reference
Hazardous Substance	onto land	5 Gallons	PA Title 67, Chapter 403
	into water	5 Gallons	PA Title 25, Chapter 91
Any oil/hydrocarbon	onto land	5 Gallons	PA Title 67, Chapter 403
	into water	causes sheen	

Disclaimer: All applicable codes, standards, policies, procedures, and best management practices must be followed whether specifically addressed in this plan or not. These include, but are not limited to the Occupational Safety and Health Administration (specifically 29 CFR 1910.120 and 1910.1200), USEPA/PADEP regulations, Equitrans policies and procedures, 40 CFR, Coast Guard regulations, local Ordinances, etc.

Section 7 - References

40 CFR §261.3

40 CFR §110.10

40 CFR §112

40 CFR §117.21

40 CFR §302.4

Guidelines for the Development and Implementation of Environmental Emergency Response Plans.
Pennsylvania Department of Environmental Protection. Document #400-2200-001. September
2001.

A Facility Owner/Operator's Guide to Oil Polluton Prevention. Spill Prevention, Control, and
Countermeasure (SPCC) Regulation.

Figure 1 – Project Location Map

Figure 2 – Hospital Location and Directions





145 Braden Run Rd, Waynesburg, PA 15370 to
Washington Health System Greene


Drive 3.5 miles, 8 min


145 Braden Run Rd



Waynesburg, PA 15370

-  1. Head southeast on Braden Run Rd/T588 toward PA-188 E

0.2 mi
-  2. Turn right onto PA-188 W/Jefferson Rd

2.4 mi
-  3. Turn right onto Bill George Dr

0.1 mi
-  4. Merge onto E High St/Main St

0.5 mi
-  5. Turn right onto Bonar Ave/T732
 Destination will be on the left

0.3 mi

Washington Health System Greene

Bonar Avenue, Waynesburg, PA 15370

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Attachment 1 – Emergency Contact Information

EMERGENCY CONTACT INFORMATION

In the event of an emergency, the on-site coordinator shall first ensure the safety of all personnel and, if possible, contain any spill or other event to the extent practicable. Upon initial containment of a spill or neutralization of a threat to personnel health, the on-site coordinator shall follow the chain of command and contact necessary individuals listed below.

<u>Operator Information</u>	<u>Key Emergency Numbers</u>
<p>Equitrans Expansion Project – H-316, H-305, M-80, H-158, Redhook Compressor Station</p> <p><u>Site Location:</u> <u>Redhook Compressor Station</u> Long: -80° 07' 52.88" Lat: 39° 55' 02.00"</p> <p><u>H-302 tie-in</u> Long: -80° 04' 59.44" Lat: 39° 54' 10.91"</p> <p><u>Operator:</u> Equitrans, LP 555 Southpointe Blvd, Suite 200 Canonsburg, PA 15317</p> <p><u>Land Agent:</u> Hanna McCoy 724-873-3476</p> <p><u>Chain of Command:</u> <i>Contact the following individuals in the order listed in the event of an accidental spill or emergency on-site.</i></p> <p><u>Emergency Coordinator:</u> Dan Truman 304-627-6432 (office), 304- 844-2174 (cell)</p> <p><u>Safety Coordinator:</u> Russell Grooms 724-579-0731</p> <p><u>Environmental Coordinator:</u> Dave Durofchalk 412-395-5583 (office)</p> <p><u>Permitting Supervisor:</u> Stephanie Frazier 412-553-5798</p> <p><u>Environmental Manager of Performance and Compliance:</u> Jeannine Hammer 412-395-2553</p>	<p><u>Plan Emergency and Environmental Supervisor:</u> Dave Durofchalk 412-395-5583 (office)</p> <p><u>Safety Coordinator:</u> Russell Grooms 724-579-0731</p> <p><u>Pennsylvania Dept. of Environmental Protection:</u> See attached</p> <p><u>USCG/National Response Center (NRC):</u> 800-424-8802</p> <p><u>Greene County Emergency Management Agency:</u> 724-627-4911</p> <p><u>Closest Fire Station:</u> Waynesburg Volunteer Fire Department PO Box 392, Waynesburg, PA 15370 724-627-5426</p> <p><u>Closest Hospital:</u> Washington Health System, Greene Hospital 350 Bonar Ave, Waynesburg PA 15370 724-627-3101</p> <p><u>The PA Emergency Management Agency:</u> 800-424-7362 or 717-651-2001</p> <p><u>PA Game Commission:</u> 717-787-4250</p> <p><u>PA Fish and Boat Commission:</u> 814-445-8974</p> <p><u>USEPA Region 3</u> 215-814-5000</p>

Attachment 2
Material and Waste Inventory

List of Oil and Fuel to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

List of Commercial Chemicals to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

List of Hazardous and Non-hazardous Wastes to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

Notes: **THESE TABLES TO BE COMPLETED AND MAINTAINED BY CONTRACTOR.**

MSDS for all substances listed in the above tables shall be provided by the contractor. All containers shall have temporary containment.

Attachment 3
Horizontal Directional Drilling Contingency Plan

**HORIZONTAL DIRECTIONAL DRILLING (HDD)
CONTINGENCY PLAN**

**EQUITRANS EXPANSION
PROJECT**

**ALLEGHENY, GREENE AND WASHINGTON COUNTIES,
PENNSYLVANIA**

JULY 2015

(Revised July 14, 2016)

Prepared by:
EQUITRANS
625 Liberty Avenue
Suite 1700
Pittsburgh, PA 15222-3111



HORIZONTAL DIRECTIONAL DRILLING (HDD) CONTINGENCY PLAN

Project Narrative:

HDD is a trenchless excavation method that is accomplished in three phases. The first phase consists of drilling a small diameter pilot hole along a designed directional path. The second phase consists of enlarging the pilot hole to a diameter suitable for installation of the pipe. The third phase consists of pulling the pipe into the enlarged hole. HDD is accomplished using a specialized horizontal drilling rig with ancillary tools and equipment. A properly executed HDD crossing will allow for the pipeline to be installed in a minimally invasive manner.

HDD is proposed for the Equitrans Expansion Project crossing the Monongahela River (H-318 pipeline) in Allegheny and Washington Counties, Pennsylvania and Ten Mile Creek (H-316 pipeline) in Greene County, Pennsylvania. The HDD crossing is the preferred method of construction intended to minimize direct impacts to surface waters.

The inadvertent release (IR) of drilling lubricant is a potential concern when the HDD is used. The HDD procedure for these crossings will utilize Bentonite for Drilling Lubricant.

Purpose:

The purpose of this Contingency Plan is to:

- Minimize the potential for an IR associated with horizontal directional drilling activities.
- Provide for the timely detection of an IR.
- Protect areas that are considered environmentally sensitive (streams, wetlands, other biological resources, cultural resources).
- Provide an organized, timely, and "minimum-impact" response in the event of an IR.
- Provide that all appropriate notifications are made to the PA Department of Environmental Protection (DEP), EQT, and other appropriate regulatory agencies, and that documentation is completed.

Preparation:

Prior to construction, sensitive cultural and biological resources will be protected by implementing the following measures:

- The drilling contractor shall review the site conditions prior to the start of work. The execution of HDD operations and actions for detecting and controlling drilling fluid seepage are the responsibility of the drilling contractor.
- Construction limits will be clearly marked.

- Barriers (18" Fabric Filter Fence or Compost Filter Sock, as per the on-site inspector) will be erected between the bore site and nearby sensitive resources prior to drilling to prevent released material from reaching the resource.
- On-site briefings will be conducted for the workers to identify and locate sensitive resources at the site.
- Provide that all field personnel understand their responsibility for timely reporting of IR's.
- Maintaining necessary response equipment on-site and in good working order.

The primary areas of concern for IR's occur at the entrance and exit points where the drilling equipment is generally at their shallowest depths. The likelihood of an IR decreases as the depth of the pipe increases.

To minimize the potential extent of impacts from an IR, HDD operations will be continuously monitored to look for observable IR conditions or lowered pressure readings on the drilling equipment. Early detection is essential to minimizing the area of potential impact.

Training:

Prior to the start of construction, the Site Supervisor/Foreman shall ensure that the crew members receive training on the following:

- The provisions of this Contingency Plan.
- Inspection procedures for IR prevention and containment equipment materials.
- Contractor/crew obligation to immediately stop the drilling operation upon first evidence of the occurrence of an IR and to immediately report any IRs to EQT's Environmental Coordinator.
- Contractor/crew member responsibilities in the event of an IR.
- Operation of release prevention and control equipment and the location of release control materials, as necessary and appropriate.
- Protocols for communication with agency representatives who might be on site during the clean-up effort.
- Copies of this contingency plan and the contractor's site specific contingency plan will be maintained at the bore site in a visible and accessible location at all times.

Equipment:

The Site Supervisor shall verify that:

- All equipment and vehicles are inspected and maintained daily to prevent leaks of hazardous materials.
- Spill kits and spill containment materials are available on-site at all times and that the equipment is in good working order.
- Equipment required to contain and clean up an IR is available at the bore site during drilling activities.

*Note: It is the drilling contractor's responsibility to provide any IR containment materials that are necessary to respond to the release of drill fluids. The materials listed in this contingency plan are not to be considered inclusive and may require additional equipment depending on site conditions.

Drilling Procedures:

Drilling pressures shall be closely monitored so they do not exceed those needed to penetrate the formation. Pressure levels shall be monitored randomly by the operator. Pressure levels shall be set at a minimum level to prevent IRs. During the pilot bore, maintain the drilled annulus. Cutters and reamers will be pulled back into previously drilled sections after each joint of pipe is added.

Entry and exit pits shall be enclosed by 18" Fabric Filter Fence or Compost Filter Sock and straw bales. A spill kit shall be on-site and used if an IR occurs. If accessible, a vacuum truck shall be readily available on-site prior to and during all drilling operations. Containment materials (straw, fabric filter fence, sand bags, spill kits, boom and turbidity curtain, etc.) shall be staged on-site at a location where they are readily available and easily mobilized for immediate use in the event of an IR. Filter Fence or Filter Sock will be installed between the bore site and the edge of water sources prior to drilling.

*NOTE: If the site is not able to be accessed by a vacuum truck, a pump with sufficient power to convey the released drill fluid to a containment area will be used instead. Along with the pump, an adequate amount of hose, several filter bags, straw bales, sand bags, and 18" Fabric Filter Fence (or Compost Filter Sock) will be kept on site to create a containment area on site.

Once the drill rig is in place and drilling begins, the drill operator shall stop work immediately whenever the pressure in the drill rig drops or there is a lack of returns in the entrance pit. At this time the Site Supervisor/Foreman shall be informed of the potential IR. The Site Supervisor/Foreman and the drill rig operator(s) shall work to coordinate the likely location of the IR. The location shall be recorded and notes made on the location and measures taken to address the concern. Measures will then be taken according to the type of IR (i.e. Terrestrial or Aquatic) as listed below. The Site Supervisor/Foreman will then begin notifying the appropriate parties as listed in the "Contacts" section of this document.

Water containing mud, silt, drilling fluid, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake, flowing stream, or any other water source. The bentonite used in the drilling process shall be either disposed of at an approved disposal facility or recycled in an approved manner. Other construction materials and wastes shall be recycled, or disposed of, as appropriate.

Inadvertent Release (IR) Procedures

In the event of an IR, EQT's Project PM, Environmental Inspector, Chief (i.e. whoever is on site) is required to IMMEDIATELY notify the Project's **EQT Environmental Coordinator (Ms. Stephanie Frazier, 412-553-5798)** with the following information: What occurred; Where it occurred (Terrestrial or Aquatic); When it occurred; Who was responsible; and Quantity released.

Terrestrial IR Procedures:

- Stop work immediately.
- The bore stem will be pulled back to relieve pressure on the IR.
- Isolate the area with hay bales, sand bags, filter sock, or silt fencing to surround and contain the drilling mud per the Appendix B – Typical IR Detail Sheets.
 - o Determine the quantity (gallons) of material released
 - o Determine the distance (feet) to the nearest waterbody
 - o Determine the name of the waterbody
- Contact the appropriate parties as listed in the “Required Notifications” section at the end of this document regarding the following action:
- A mobile vacuum truck (or pump if in an inaccessible area) will be used to pump the drilling mud from the contained area and into either a return pit or (if using a pump) into a filter bag surrounded by 18” Fabric Filter Fence or Compost Filter Sock.
- Once excess drilling mud is removed, the area will be seeded and/or replanted using species similar to those in the adjacent area, or allowed to re-grow from existing vegetation.

After the IR is stabilized, document the IR from discovery through post-cleanup conditions with photographs and prepare an IR incident report describing time, place, actions taken to remediate IR, and measures implemented to prevent recurrence. The incident report will be provided to the EQT Environmental Coordinator within 24 hours of the occurrence.

Aquatic (under water) IR Procedures:

- Stop work immediately.
- The bore stem will be pulled back to relieve pressure on the IR.
- Contact the appropriate parties as listed in the “Required Notifications” section at the end of this document regarding the following actions:
- Isolate the area with hay bales, sand bags, filter sock, or silt fencing to surround and contain the IR per the Appendix B – Typical IR Detail Sheets;
 - o Determine the quantity (gallons) of the IR
 - o Determine the quantity (gallons) that was released to the waterbody
 - o Determine the distance (feet) the material traveled down the waterbody
 - o Determine the name of the affected waterbody
- A mobile vacuum truck (or pump if in an inaccessible area) will be used to pump the drilling mud from the contained area and into either a return pit or (if using a pump) into a filter bag surrounded by 18” Fabric Filter Fence or Compost Filter Sock.
- If the IR affects an area that is vegetated, the area will be seeded and/or replanted using species similar to those in the adjacent area, or allowed to re-grow from existing vegetation.

After the IR is stabilized, document the IR from discovery through post-cleanup conditions with photographs and prepare an IR incident report describing time, place, actions taken to remediate IR, and measures implemented to prevent recurrence. The incident report will be provided to the EQT Environmental Coordinator within 24 hours of the occurrence.

Abandonment and Alternative Crossings

If the HDD fails and EQT decides to abandon the drill hole, alternative crossing methods will be considered. Any alternative crossing will require permitting approvals to be secured before action is taken. Contact the Environmental Coordinator for the Project.

Required Notifications:

In the event of an IR, the following parties are to be notified IMMEDIATELY:
EQT Environmental Department:

Ms. Stephanie Frazier (Primary Contact)

Environmental Permitting - Supervisor
412-553-5798 (office)
412-925-1446 (cell)

Ms. Megan Stahl

Environmental Permitting - Supervisor
412-553-7783 (office)
412-737-2587 (cell)

Mr. John Centofanti

Corporate Director - Environmental Affairs
412-395-3305 (office)
412-417-3729 (cell)

Mr. Paul Friedman

FERC Project Manager
202-502-8059 (office)

Include the following information:

- Time the spill was first identified
- Description of where the spill occurred – Township and County
- Latitude and Longitude of spill
- Size of spill and control measures in place
- Name of affected water resource (if known/applicable)
- Photographs of spill area and corrective measures – when available. (Do not wait to notify EQT until pictures are available. Photo documentation should begin immediately upon detection and continued throughout the duration of the cleanup).

The Environmental Department will contact State and/or Federal environmental agencies (if applicable) for notification requirements in the event of an IR.

As appropriate, in the event of drill bore failure, the Environmental Department will also follow the notification and evaluation procedures in Section 4.4 of the "Equitrans Expansion Project Plan for Unanticipated Historic Properties and Human Remains, Pennsylvania and West Virginia.

References:

This Contingency Plan was adapted from the following websites:

<<http://www.blm.gov/pgdata/etc/medialib/blm/wy/information/NEPA/cfodocs/greencore.Par.0871.File.dat/PODappH.pdf>>

Equitrans
Equitrans Expansion Project
Allegheny, Greene and Washington Counties, Pennsylvania
Wetzel County, West Virginia



<http://www.csx.com/share/wwwcsx_mura/assets/File/Customers/Non-freight_Services/Property_Real_Estate/Sample_Fraction_Mitigation_Plan_for_HDD.pdf>

http://www.energy.ca.gov/sitingcases/smud/documents/applicants_files/Data_Response_Set-1Q/APPENDIX_C_FRAC_OUT_PLAN3.PDF

Attachment 4
Unanticipated Discovery of Contamination Plan

Unanticipated Discovery of Contamination Plan

Unanticipated Discovery of Contamination Plan Introduction

The purpose of this Unanticipated Discovery of Contamination Plan (Plan) is to provide work, investigation and reporting procedures for responding to the unanticipated discovery of contamination in soil, groundwater or sediment during excavation, construction or maintenance activities associated with construction of the Equitrans Expansion Project.

Consistent with this purpose, the objectives of this Plan are to protect the health and safety of project personnel and the environment and to prevent the spread of contamination during and after an unanticipated discovery of contamination.

The greatest potential for the discovery of unanticipated contamination will occur during the excavation of the pipeline trench. If any project personnel detects potential contamination such as:

- Odor;
- Visible staining on soil;
- Sheen on ground or purge water;
- Unidentified underground service tank;
- Potential cultural resources, including human remains; etc.,

the following response plan will be executed.

Unanticipated Discovery Response Plan

Stage 1 – Suspend Work Activities

All construction and/or maintenance work in the immediate area of the discovery shall stop. Personnel shall move to upwind areas as necessary.

Stage 2 – Identify Immediate Threats

If an immediate threat is detected, emergency response (i.e., 911) shall be notified. The area shall be evacuated.

Stage 3 – Identify and Secure Area

If safe to do so, the area immediately around the potential contamination shall be secured with safety fencing or flagging. Site personnel shall remain onsite to restrict access as appropriate.

Stage 4 – Conduct Notifications

Appropriate EQT environmental professionals and officials shall be notified of the potential contamination as described in the PPC plan. It shall be the decision of the EQT environmental professional (TBD) to determine environmental agency or public official notification requirements.

Stage 5 – Discovery Documentation Protocol

An appropriate EQT employee or designee will document the unanticipated contamination utilizing the attached Worksheet 1. Worksheet 1 includes instructions for the appropriate EQT employee or designee to record the site name, locations, and how suspected contamination was determined. The EQT employee or designee will coordinate with the construction contractor(s) who identified the contamination to assist in completing Worksheet 1.

Stage 6 – Remedial Action Planning

An onsite meeting (if appropriate) will be conducted among site personnel, EQT environmental professionals, and any appropriate contamination response contractors to determine remediation requirements and methodologies. If remediation activity is appropriate, an environmental consultant (if appropriate) should be contacted to assist with the remedial activity. Remedial activities should be conducted according to the following general sequence of events. This is a general plan and is not meant to apply to all contamination situations. A more robust, site-specific remedial action plan should be completed by an environmental consultant prior to completing remedial activities.

Step 1: Sampling – Representative samples should be collected and submitted to an environmental laboratory for analysis and/or waste classification. Results of this analysis may dictate notification requirements. An environmental consultant can assist in the determination of these requirements.

Step 2: Remedial Action Determination – Following laboratory analysis, the EQT environmental professional and/or the environmental consultant will evaluate the analysis results and, if appropriate, identify the type of remediation (in-situ, removal, etc.) to be completed.

Step 3: Remedial Action – EQT will mobilize an appropriate contractor and remediation activities will be conducted. Any soil and/or groundwater suspected of containing contamination will be segregated from clean soil and/or water using plastic sheets, fractionation tanks, or other appropriate methodologies. Containers will be clearly labeled. Known hazardous wastes will be labeled and separated with orange construction fencing.

Step 4: Disposal – Wastes will be disposed of properly at a permitted facility. EQT environmental professional or its environmental consultant will determine disposal requirements.

Stage 6 – Record Keeping

A record of the sequence of events from the beginning (unanticipated discovery) to the end (disposal) of the incident will be recorded and kept on file with the EQT environmental professional in accordance with all mandated record keeping requirements.

Worksheet 1 – Unanticipated Discovery of Contamination Documentation

Instructions: Complete this worksheet to document an unanticipated discovery of contamination event. Use a separate sheet (copy) for each occurrence.

A. Site Name, Physical Location, and Milepost

B. How Suspected Contamination was Determined (odor, stain, sheen, etc.). Include photographs as appropriate.

C. List dates, times, and officials notified

Attachment General-3

Spill Prevention, Control and Countermeasures Plan, Equitrans Expansion Project,
Webster Interconnect, H-319, and Mobley Tap (Wetzel County, West Virginia)

SPILL PREVENTION, CONTROL AND COUNTERMEASURES PLAN

PREPARED FOR THE

Equitrans, L.P.

**Equitrans Expansion Project – Webster Interconnect, H-319
and Mobley Tap**

SITUATED IN

**Wetzel County,
West Virginia**

July 2016

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Figure 1 – Project Location Map

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Attachment 1 – Emergency Contact Information

Attachment 2 – Material and Waste Inventory

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Section 1 - General Information

1.1 Objective

This Spill Prevention, Control, and Countermesure (SPCC) (Plan) has been prepared for Equitrans, LP (Equitrans) for the proposed Equitrans Expansion project, located near Mobley, Wetzel County, WV. A facility is subject to the SPCC Rule if the total aboveground storage capacity of oil and oil products exceeds 1,320 gallons, or if the underground storage capacity exceeds 42,000 gallons, and if, because of its location, the facility could reasonably be expected to discharge oil into navigable waters of the United States. Oil-filled bulk storage containers and oil-filled operational equipment with a capacity of less than 55 gallons, permanently closed bulk storage containers, and motive power equipment are not included in the total storage capacity of the facility and are exempted from requirements under the SPCC Rule.

This plan describes the procedures to be followed by employees and contractors to prepare for, prevent, control, and respond to an emergency or spill.

This SPCC has been prepared in accordance the Environmetnal Protection Agency *Spill Prevention Control and Countermeausre guidance*. This plan provides information and procedures in accordance with state and federal regulations regarding means to prevent and minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden releases of toxic, hazardous or other polluting materials to air, water, or land.

For purposes of this plan the following definitions apply:

- *A spill* is defined as any unauthorized spill or leak of a hazardous material or oil.
- *A significant spill* is defined in the *Oil and Gas Management Practices and Guidelines for the Development and Implementation of Environmental Emergency Response Plans* as including but not limited to releases of oil and hazardous substances in excess of reportable quantities under Section 3111 of the Clean Water Act (40 CFR 110.10 and CFR 117.21) or Section 102 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA; 40 CFR 302.4).
- *Hazardous material* is defined as any substance or material that could adversely affect the health or safety of the public or environment.
- *A hazardous waste* is generally defined as dangerous waste that poses a substantial present or potential hazard to human health or the environment. 40 CFR §261.3 provides in-depth definitions of hazardous waste.
- *An emergency* is defined as a significant injury requiring medical treatment beyond the scope of on-site personnel training.

EMERGENCY CONTACT INFORMATION IS PROVIDED IN ATTACHMENT 1 OF THIS PLAN. FOLLOW PROPER NOTIFICATION PROTOCOL IN THE EVENT OF ANY SPILL OR EMERGENCY ON-SITE.

1.2 Site Information

Site Name: Equitrans Expansion Project (Refer to **Figure 1** for project location map)

This project will add the Webster Interconnect with Mountain Valley Pipeline LLC's (Mountain Valley) proposed pipeline and add the Mobley Tap on Equitrans' existing H-302 pipeline that also connects with Mountain Valley. Also included with this portion of the project is the H-319 pipeline which is a new 16-inch pipeline, approximately 200 feet in length that will connect the existing Equitrans H-306 pipeline to the Webster Interconnect with Mountain Valley. Construction activities will consist of clearing and grubbing, installation of new access roads, construction of permanent pads, installation of pipeline, and site restoration activities.

Site Address and Directions to Site: The Webster Interconnect and H-319 is located off of Co Rd 15/3. From Charleston, WV – take I-64 W/I-77N toward I-79. Continue onto I-79N toward Parkersburg. Take exit 119 for US-50 toward Clarksburg. Turn left onto US-50W. Take slight right to merge onto Co Rd 5035. Turn right toward Wilsonburg Rd and continue straight. Turn right onto Bean Run and continue onto Gregory Run. Turn left onto WV-20N. Turn right onto Co Rd 7/8. Keep left to continue to Fallen Timber Rd. Turn right onto Shuman Hill, the site will be on the left.

The Mobley Tap is located off of Co Rd 15/3. From Charleston, WV – take I-64 W/I-77N toward I-79. Continue onto I-79N toward Parkersburg. Take exit 119 for US-50 toward Clarksburg. Turn left onto US-50W. Take slight right to merge onto Co Rd 5035. Turn right toward Wilsonburg Rd and continue straight. Turn right onto Bean Run and continue onto Gregory Run. Turn left onto WV-20N. Turn right onto Co Rd 7/8. Keep left to continue to Fallen Timber Rd. Turn right onto Shuman Hill. Turn left onto N Fork Rd. Turn right onto Co Rd 15/3, the site will be on the left.

1.3 Plan Availability

A copy of this plan will be available in the following locations:

- On-site in the project mailbox, job trailer, or with on-site coordinator.
- Office of the Environmental Coordinator

1.4 Plan Revisions

The SPCC and all site operations will be reviewed at least once per year to assure that the plan is consistent with applicable state and federal regulations. The plan will also be revised if:

- changes in site operations occur that materially increase the potential for fires, explosions or releases of toxic or hazardous constituents or change the response necessary in an emergency,
- routine inspections determine that the plan needs to be revised,
- the plan fails to achieve the objective stated in **Section 1.1**,
- applicable WVDEP or federal regulations are revised,
- the list of personnel who are responsible for implementing or maintaining this plan or emergency equipment changes, or
- as required by the WVDEP or EPA.

When plan changes are required, the plan will be revised within 30 days of identifying the need for a revision. Plan changes will be implemented in a timely manner, but in no case later than 90 days. Notifications of plan changes or additions will be made to all personnel or groups listed in **Attachment**

1. The on-site copy of this plan will have appropriate changes made with dating and initialing labeled on this copy of the plan.

1.5 Plan Implementation and Organization

In the event of an emergency situation which endangers public health and safety or the environment, the provisions of this plan will be immediately implemented. The following sections shall be referenced for additional information on plan implementation and organization for the project:

- **Section 2.0** – Plan team members and associated responsibilities.
- **Section 3.0** – Pertinent site-specific information.
- **Section 4.0** – Preventative measures
- **Section 5.0** – Countermeasures
- **Section 6.0** – Incident notification information

Section 2 - Plan Team and Responsibilities

2.1 SPCC Team

The SPCC Team consists of the following persons and chain of command (in order of priority):

Name/Title	24 Hours A Day
Dan Truman Equitrans, LP Emergency Coordinator	Office: 304-627-6432 Cell: 304-844-2174
Russell Grooms Equitrans, LP Safety Coordinator	Office: 724-579-0731
Dave Durofchalk Equitrans, LP Senior Environmental Coordinator	Office: 412-395-5583
Stephanie Frazier Permitting Supervisor	Office: 412-553-5798
Jeannine Hammer Equitrans, LP Environmental Manager of Performance and Compliance	Office: 412-395-2553 Cell: 412 709-9804

Responsibilities of the SPCC Plan Team include:

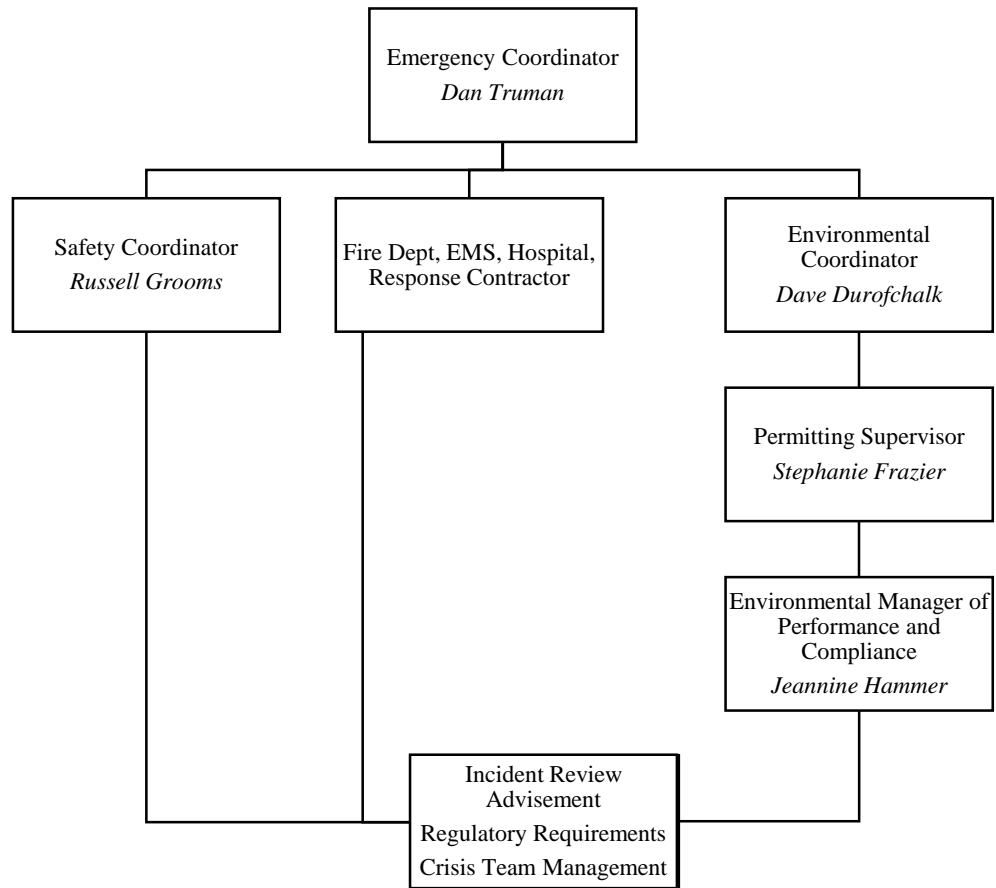
- Maintain familiarity with the contents of this plan.
- Provide training so that on-site personnel are familiar with the contents of this plan.
- Perform spill prevention measures specified in **Section 4.0**.
- Maintain records of spill prevention efforts such as inspections and preventive maintenance as described in **Section 4.0**.
- Implement emergency countermeasures presented in **Section 5.0** under the direction of the emergency coordinator or designee.
- Submit a written report to the appropriate regulatory agency and within the proper timeframe of a significant spill.
- Ensure that all Equitrans field employees are familiar with the plan, and understand how to react in case of an emergency

All on-site personnel shall be made familiar with the contents of this Plan through regular training and periodic safety meetings. Proper training will help all on-site personnel to understand proper protocols in the event of an inadvertent spill or emergency.

2.2 Plan Chain of Command

The plan chain of command defines on-site emergency personnel and members of the Team that shall be contacted in the event of an emergency. Team members shall be familiar with the order of priority for emergency notifications.

Figure 2.2. Plan Chain of Command



2.3 Emergency Coordinator

The emergency coordinator is responsible for implementing the plan. Should the emergency coordinator not be available on-site, he/she shall designate a member of the team that is familiar with the contents of the plan to act as emergency coordinator in his/her stead.

In the event of an emergency, responsibilities of the emergency coordinator include:

- Activate any alarms and notify personnel as applicable.
- Coordinate all emergency response efforts and establish a safe area command center.
- Take all reasonable measures to ensure that fire, explosion, emission, or discharge do not occur, reoccur or spread to other materials or wastes at the installation. These measures include stopping work and operations, collecting and containing released materials and wastes, and removing or isolating containers.
- Notify appropriate emergency response agencies as specified in **Section 6.0** and listed in **Attachment 1**.
- Notify members of the Team according to chain of command listed in **Section 2.1** and **Section 2.4**.

- Identify the character, exact source, amount, and extent of released material.
- Assess possible hazards to human health or the environment (including direct and indirect effects).
- Take all reasonable measures and commit resources needed to carry out the plan.
- Ensure that site operations underway during the emergency response are properly monitored and controlled.
- Ensure that cleanup residues are properly handled and disposed.

Further details concerning countermeasures and emergency contacts are contained within **Section 5.0** and **Section 6.0** of this plan.

2.4 Plan Administrator

The environmental coordinator or designee is responsible for developing and maintaining the Plan and will be referred to as the plan administrator:

Responsibilities of the plan administrator include:

- Ensure that the plan is reviewed and updated as required.
- Ensure that the plan is distributed as required.

Section 3 - Site Activity Description and Potential Pollutants

3.1 Site Activity Description

This portion of the project will add the Webster Interconnect with Mountain Valley Pipeline LLC's (Mountain Valley) proposed pipeline and add the Mobley Tap on Equitrans' existing H-302 pipeline that also connects with Mountain Valley. Also included with this portion of the project is the H-319 pipeline which is a new 16-inch pipeline, approximately 200 feet in length that will connect the existing Equitrans H-306 pipeline to the Webster Interconnect with Mountain Valley. Construction activities will consist of clearing and grubbing, installation of new access roads, construction of permanent pads, installation of pipeline, and site restoration activities.

An erosion and sediment (E&S) control plan has been developed for the site to prevent erosion to disturbed soil surfaces and reduce sedimentation to surrounding surface and ground water.

3.2 Material and Waste Inventory

All materials stored on-site shall be properly marked and kept in US Department of Transportation approved containers. The **contractor** shall identify and list all sources of potential large spills, including tank overflow, rupture, or leakage. MSDS sheets must be included for all containers **larger than 660 gallons or for locations that have a total capacity of 1,320 gallons** that contain oil, petroleum, fuel oil, sludge, oil refuse, and oil mixed with waste as required in Code of Federal Regulations, Title 40, Part 112 (40 CFR 112) within the attached Tables.

Table 3.2 has been included on the following pages to provide an inventory of materials typically expected to be on a construction site of this type, chemicals within these materials that are potential pollutants, and BMPs associated with each material type to mitigate risk for water resources pollution. The **contractor** shall complete and maintain **Attachment 2** for Material and Waste Inventory. Safety Data Sheets (SDS) for materials shall be maintained on-site as necessary. Waste generated on-site will be characterized, properly stored, and disposed of at an approved facility.

Table 3.2. Potential Pollutant Sources and Best Management Practices

Material/Chemical	Potential Pollutants	Best Management Practice
Cleaning Solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Glue, Adhesives, Epoxy Powders	Polymers, epoxies	Disposal of used containers must follow manufacturer specifications. Proper application (see manufacturer recommendations). Storage of products: Properly sealed containers indoors, on a pallet, under shelter, tarp or inside a vehicle tool cabinet.
Concrete, Concrete Washout Water	Limestone, pH	Designated concrete washout area on ROW. Do not clean out hopper or chute on to ground or in drainage channels. Concrete washout area must be within a bermed containment area. It must be cleaned out when it reaches a 75% capacity. Recommend cleanout at 50%. All wash out areas will be in the permanent ROW.
Wood Preservatives	Stoddard solvent, petroleum distillates, arsenic, copper, chromium; creosote; pentachlorophenol	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Gasoline / Diesel Fuel	Benzene, ethyl benzene, toluene, xylene, MTBE	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment. All on-site vehicles will be routinely inspected for leaks and drips.

Material/Chemical	Potential Pollutants	Best Management Practice
Kerosene	Coal oil, petroleum distillates	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Antifreeze/Coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment. All on-site vehicles will be routinely inspected for leaks and drips.
Detergents	Phosphorous	Proper application (see manufacturer recommendations). Disposal of used containers and excess material must follow manufacturer specifications. Storage: Tightly sealed containers indoors, or within a shed or truck tool box. If product is stored outdoors, must be stored under a shelter or tarp within secondary containment.
Sediment	Nutrients, suspended solids, sediment	Sediment erosion and sedimentation on-site should be controlled by structural and non-structural BMPs. Structural BMPs can include but are not limited to: sediment control logs, erosion control blankets, riprap, earth berms, and silt fence. Non-structural BMPs can include but are not limited to: seed and mulch, exposure time of disturbed soils, education of on-site personnel.

3.3 Pollution Incident History

No major pollution incidents have occurred on Equitrans sites.

3.4 Implementation Schedule for Plan Elements not Currently in Place

There are no known elements of this plan that are not currently in place. Certain projects may require additional measures depending on scope of activity. Additional items that may need to be implemented include but are not limited to:

- Erosion and sediment control plan and applicable WVDEP permits
- Additional chemical and material management measures

Section 4 - Spill Prevention and Response

4.1 Pre-release Planning

The Contractor must assess the materials kept on-site and note areas that may become contaminated should a spill occur. Preventative measures listed below should be considered when storing potentially hazardous chemicals or materials on-site:

- Store chemicals and materials in proper US DOT approved totes/containers
- Provide secondary containment as required
- Store potential pollutants in areas where they will not be readily transported toward sensitive water resources in the event of a spill
- Note any emergency shutoff valves on equipment or storage containers that will be used in the event of a spill

4.2 Material Compatibility

Materials must be stored in dedicated containers or totes and used only for the intended chemical storage. Storage containers should not be reused with a different chemical if there is any chance of a reaction occurring. If the reactivity between chemicals is unknown, they should not be mixed or stored in the same container until it has been verified that no harmful reaction will take place.

Thorough cleansing of chemical storage containers should be standard practice to ensure that there is no residual incompatible with the next or later materials used. Any available National Fire Protection Agency (NFPA) placards should be referenced for hazardous materials to identify potential reactivity.

4.3 Inspection and Monitoring Program

During construction employees are required to check for the following conditions: spills and leakage of fuels, lubricants or any other contaminants; visible soil contamination; malfunctioning equipment; on-site traffic accidents; storm water contamination; or any other condition which could lead to contamination of air, soil, or water. If an abnormality occurs, the employees must contact one of the designated Team members listed above in **Section 2.1** of this Plan.

Inspections shall occur on a daily and weekly basis as described below:

Daily Inspections: An Equitrans employee, or his/her designee, will conduct a visual inspection of the project area each day. The purpose of the inspection is to identify housekeeping and preventative maintenance needs. Issues of potential concern will be brought to the attention of the responsible person in charge immediately following the inspection. A log of any issues identified during daily inspections shall be kept on-site with the copy of the Plan and E&S Control Plan.

Weekly Inspections: An Equitrans employee, or his/her designee, shall conduct a weekly inspection of the site and log findings on the standard Inspection Form to record their findings. The standard form should be used for E&S BMP inspection, and any spills or potential pollution issues should be noted on the inspection form.

4.4 Preventative Maintenance

Preventative maintenance measures for the expected scope of work are listed below:

- Construction Activities
 - During construction, proper BMPs shall be utilized to prevent stormwater runoff coming into contact with potential pollutants including construction materials, fuel, and construction equipment. Equipment and material storage areas should be located in areas where the potential for contact with water resources is at a minimum. Furthermore, risk for pollution from erosion and sedimentation will be mitigated through the use of WVDEP approved erosion and sediment control BMPs.
- Materials Handling
 - Materials to be stored in the project area should be located in areas that are protected from significant surface flows to prevent transmission of potential pollutants to surface waters.
 - Hazardous materials, including chemicals, fuels, and lubricating oils, shall not be stored within 100 feet of a wetland, waterbody, or designated municipal watershed area, unless the location is designated for such use by an appropriate governmental authority. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas.
 - When unique conditions require refueling within 100 feet of the banks of a waterbody, a wetland boundary, or within any municipal watersheds, this activity must be approved in advance by the Environmental Inspector following a review that no reasonable alternatives exist and incorporation of any necessary additional emergency response measures. At a minimum, the review will consider the environmental risks of relocating equipment to an authorized refuel/lubrication area verses risks involved with refuel/lubrication in-place. Additional emergency response measures include availability of absorbent materials or other secondary spill containment materials for immediate application prior to commencing refueling activities.
 - Any potential pollutants stored on-site shall be kept covered with proper secondary containment to prevent water resources impacts.
 - Any collected stormwater within secondary containment should be inspected for signs of pollution (sheen, discoloration and other signs of chemical pollution). If no evidence of pollution is noted, collected water will be allowed to evaporate. Where possible pollution is discovered within secondary containment, collected stormwater should be properly disposed of offsite by hauling to a state approved facility.
- Equipment Cleaning and Maintenance
 - Cleaning and maintenance of equipment should take place away from water resources and within designated areas of adequate containment to prevent pollutants from entering water resources. Overnight equipment parking and refueling shall occur at least 100 feet from a waterbody or wetland boundary or additional emergency response measures include availability of absorbent materials or other secondary spill containment materials must be in place for immediate application prior to commencing activities.
- Pipelines Carrying Contaminants
 - Testing will be conducted prior to the transport of natural gas to ensure pipeline integrity.
- Sumps/Tanks Carrying Contaminants

- Sumps and Tanks containing potential pollutants shall be located at least 100 feet away from existing water resources and secondary containment should be provided.
- Single-walled tanks shall be provided with temporary secondary containment that will hold at least 100 percent of the tank capacity of the largest tank inside the containment area.
- Precipitation shall be inspected first for the evidence of oil, including a sheen, or other containments. If a sheen or other indicators of oil or contamination is present, then the material shall be collected for property disposal off site. Any precipitation shall be removed from the containment area to maintain the available containment volume at 110 percent of the volume of material stored.
- Tanks/Containers and secondary containment drains shall remain closed when not in use.

4.5 Housekeeping Program

General Site Housekeeping:

Site housekeeping practices shall be implemented to provide neat storage of materials on-site in order to reduce the potential for materials to be exposed to stormwater runoff and to ensure that debris is not left at the site upon project completion.

Workspaces shall be inspected at the end of each workday and any trash, debris, or other discarded materials should be properly disposed of in designated roll-off bins or similar container. The site should also be inspected for accumulated soils at BMPs and also at site entrance/exits. Any collected soils should be placed at a designated area on-site and stabilized with seed and mulch upon reaching final grade. Soils deposited on roadways shall be swept using hand tools or a street sweeping machine (if permissible) and soils shall be returned to the project area. No soils should be swept into roadside ditches or storm inlets.

An inspection schedule for general housekeeping should be defined at the beginning of the project and employees should be informed of proper practices and pollution prevention concepts.

Fuel and Chemical Handling

Potentially hazardous materials such as fuel and oil for equipment and chemicals associated with the project should be properly stored on-site and secondary containment should be provided at storage locations to prevent release of harmful fluids to the environment.

Drip pans or similar methods should be provided during equipment fueling to contain leaks. Any waste occurring during refueling or maintenance should be stored in proper containers and taken off site for disposal or recycling. Overnight equipment parking and refueling shall occur at least 100 feet from a waterbody or wetland boundary.

When unique conditions require refueling within 100 feet of the banks of a waterbody, a wetland boundary, or within any municipal watersheds, this activity must be approved in advance by the Environmental Inspector following a review that no reasonable alternatives exist and incorporation of any necessary additional emergency response measures. At a minimum, the review will consider the environmental risks of relocating equipment to an authorized refuel/lubrication area versus risks involved with refuel/lubrication in-place. Additional emergency response measures include availability

of absorbent materials or other secondary spill containment materials for immediate application prior to commencing refueling activities.

Any major maintenance projects on equipment should be carried out at an offsite location.

Should a spill occur, contaminated soils shall be excavated and stored in lined containers for disposal. Proper reporting and record keeping procedures consistent with the applicable agency standards shall be utilized in the event of a spill. Vehicles and other equipment should be inspected regularly for leaks and required maintenance should be completed immediately. The following guidelines should be observed for fuel and chemical storage on-site:

1. Product containers should be clearly labeled, inventoried, and Safety Data Sheets (SDS) shall be kept on site.
2. Store fuel and chemicals away from construction traffic to reduce potential for accidental spills.
3. Any fuel or chemical storage tanks/drums should be kept within secondary containment.
4. Monitor storage areas regularly for leaks and check secondary containment for evidence of leaks (sheen, discoloration, etc...)

4.6 Security

While site security is not a major concern given the scope of the project, procedures should be followed at the site to prevent accidental or intentional entry that could result in a violation of Departmental regulations, or injury to persons or livestock. The following procedures should be considered in relation to site security:

- Locate equipment and materials away from any area where the public can easily gain access.
- Provide fencing as necessary or store equipment and materials inside of locked, fenced areas where possible.
- Provide locks on storage tank drain valves, fuel dispensers, etc...
- Install safety fence to deter foot traffic in active work areas.
- Provide traffic control as necessary to deter unauthorized public travel in work areas.
- Provide proper flagging and signage when needed for entering and exiting public roadways.

4.7 External Factor Planning

Severe weather events are the main external factor considered to cause a potential issue for the proposed project. In the event of extremely severe weather including but not limited to thunderstorms, tornadoes, hail storms, and/or severe snowstorms; construction activity shall cease and on-site personnel shall take proper cover until the weather event has ceased. Personnel shall monitor the weather to provide early warning of incoming severe weather.

For any precipitation event, severe or minor, there is an increased risk of pollution from accelerated erosion and sedimentation, as well as the potential for increased pollutant transport should a spill occur during a precipitation event. Proper inspection of E&S BMPs and material or chemical storage areas prior to and within 24 hours following a rain event will mitigate risks associated with stormwater runoff contacting disturbed or contaminated soils. Additional external factors may be present and should be noted by the on-site coordinator as they become evident. Employee and public safety shall be considered first priority in the event of any emergency.

4.8 Employee Training Program

The emergency coordinator is responsible for the initiation of all periodic training sessions that will include no less than the following:

- Implementation of the spill prevention and response plan
- Adopting effective “Good Housekeeping” practices
- Preventative maintenance
- Materials management BMPs
- E&S Control/Storm Water Pollution Prevention

Personnel will be trained, at least annually, in good housekeeping techniques and preventive measures to control the release of contaminants, along with other pertinent safety topics. Contractors or temporary personnel will be apprised of site operation and design features that are intended to prevent discharges or spills from occurring. New employees, who will be involved with response to any spill and/or contamination, will be trained in the applicable pollution control response methods. New employees will also be trained on the contents of the applicable Plan and copies will be made available to them for reference. Records are to be kept by the emergency coordinator.

Section 5 - Countermeasures

5.1 General

Employees must report immediately to the designated individuals listed in **Section 2.1** if any spill, incident/emergency or potential contamination problem has occurred.

During an emergency, operations will cease. Qualified personnel will direct response efforts with available equipment and personnel until emergency assistance arrives.

5.2 Countermeasures to be Undertaken by Facility

During construction a supply of spill response materials will be stored on-site. Personnel should be familiar with the following general conditions relative to providing countermeasure support:

- Smoking at the active construction areas will be prohibited.
- Follow housekeeping program listed in **Section 4.6**
- Refer to **Attachment 1** for local fire department and hospital emergency contact and notification information.
- Tools used for spill cleanup should be cleaned and contaminated water shall be properly disposed. Incidents should be properly documented with all pertinent information and kept on record.

In the event of an accidental spill or release of hazardous materials that may have an adverse impact to people, property, or the environment, the following procedures will be implemented:

- Notify emergency coordinator if a spill has occurred and request instructions for forward proceedings.
- The emergency coordinator will inspect the site to identify the type of materials being released and will assess the probability of environmental damage based on the location of the spill and other factors.
- Upon being notified of a spill or emergency, the chain of command personnel shall notify proper regulatory agencies as necessary.
- Take the action necessary to contain and/or mitigate possible environmental damage.
- Contain the leak and/or spill with absorbent material, diking material, (or soil, if necessary).
- Equipment from the operation will be mobilized to remove contaminated materials and place them in a suitable container for conveyance to a certified disposal site.
- Perform any testing on materials from the clean-up (needed to determine final destination of waste materials) and submit to appropriate regulatory agency.
- Complete an internal spill report for the incident. Contact a waste contractor to arrange for the removal of contaminated absorbent materials. Arrange for testing of wash water to determine how it can be safely disposed of.
- When the incident is corrected, the on-site coordinator will report the spill to the Environmental and Safety Coordinator and record this information in the daily operating logs.

Contractors Utilized for Transportation of Wastes and Waste Management Facilities

Derek Lanham

Industrial Account Manager

Waste Management of WV Inc.

Energy Services WV

1488 Dawson Dr. Suite 102

Bridgeport, WV 26330

Dlanham@wm.com
(304) 629-5100 cell

Meadowfill Landfill
1488 Dawson Dr.
Bridgeport, WV 26330
Permit # SWF 1032-98

Waste Management of WV Inc.
US EPA # WVR000529289
Transporter ID# 335239

5.3 Countermeasures to be Undertaken by Contractors

Equitrans has made arrangements with the following contractors to respond as necessary to significant spills:

Ryan Enviornmental, LLC
Suite 101
5793 W Veterans Memorial HWY
Bridgeport, WV 26330-7608
800-649-5578

SUNPRO
700 Millers Run Road
PO Box 442
Cuddy, PA 15031
800-488-0910

Weavertown
2 Dorrington Road
Carnegie, PA 15106
800-746-4850

Combined Capabilities: Mobile vacuum equipment, mobile storage tanks, remediation systems and service, transportation services, waste management Emergency Response Trailers, excavation equipment, Traffic Control.

5.4 Internal and External Communications

Employees must provide notification by telephone immediately according to the chain of command listed in **Section 2.1** and **Section 2.2** if any spill, incident/emergency or potential contamination problem has occurred. If the first person on the list is not available, the employee shall continue through the chain of command phone list until proper contact has been established.

An employee providing notification of a spill or emergency must continue going through the call list until an actual person has been contacted. Telephone messages may be left as necessary, but leaving a message does not fulfill the notification requirements of this plan.

During any shift, the emergency coordinator may be contacted either by cell phone or word of mouth but verification of the contact must be assured prior to considering the notification requirement met. During weekends and holidays, emergency coordinators should be called on their mobile phones.

In cases of fire or injury, the local fire, Emergency Management Service (EMS), and police departments should be notified before any other actions are taken.

A complete Notification List can be found in **Attachment 1** of this document.

5.5 Evacuation plan for Installation Personnel

In the event of a fire or emergency on-site, personnel will rally near the access road or at the site entrance. Once a person has been accounted for, he or she may be directed to evacuate the premises entirely by the emergency coordinator or the highest ranking person on location according to the chain of command. It is the responsibility of the emergency coordinator to account for all individuals on the site and direct emergency personnel to the last known location of any missing person.

5.6 Emergency Equipment Available for Response

Basic spill cleanup materials shall be stored in the on-site totes or kits. Absorbent booms, socks, pillows, as well as additional equipment are available on location for initial response to emergencies (hand tools, fire extinguishers, and cleaning supplies). Response Trailers are located at various geographic regions and available 24/7. In addition to spill response kits, the following items shall be available for response to an emergency:

Fire Extinguisher(s): Fully-charged fire extinguishers will be readily available on-site.

First Aid Kit(s): In the case of on-site personnel accidents or injuries, first aid kits shall be available to provide initial response to the injured person. First aid may be administered by qualified individuals on-site if extent of injuries permits. In case of more serious injuries, emergency response personnel will be notified (paramedics for transport to the local hospital). General first aid procedures should be followed until emergency medical assistance arrives.

Section 6 - Emergency Spill Control Network

6.1 Arrangements with Local Emergency Response Agencies and Hospitals

Attachment 1 lists contact information for the local and regional emergency response network available to support Equitrans in the event of a medical emergency at the site. **Figure 2** shows direction from the project site to the nearest hospital.

Mon General Hospital will provide or assist gaining access to all emergency medical services. This facility does have an emergency medical unit.

6.2 Content of Verbal Notification

Verbal notice of an emergency or spill to regulatory agencies, and designated company individuals should include as much of the information listed below as is known at the time of notification.

- Location and source of the release
- Chemical name or identity of any substance involved in the release and whether the substance is a hazardous substance; i.e., the Chemical Abstract Service ID number (CAS #) as listed in the material's SDS
- Estimate of the quantity of the substance released into the environment.
- Time of the release
- Date of the release
- Environmental medium or media into which the substance was released (soil, storm drain, surface waters)
- Duration of the release
- Proper precautions to take as a result of the release, including evacuation and other proposed response action
- Any known, anticipated or chronic health risks associated with the release and, if known to the informant, advice regarding medical attention necessary for individuals exposed to the substance released
- Name and telephone number of the person or persons to be contacted for further information
- Other information as required

Notification shall not be delayed in order to research missing information. As further information on the release or emergency is discovered it should be relayed to the proper designated individual.

6.3 Formal Incident Reporting

To standardize the procedures for Equitrans employees and contractors, and simplify the In-Field decision making process, all spills, leaks, releases or injuries **must be reported immediately** to the Equitrans Environmental and Safety Department. Appropriate reporting, by Equitrans to relevant Authorities will be conducted as per applicable regulations. Potential reports that may need files depending on spill character and quantity include but are not limited to:

- USEPA Report for Spills and for Reportable Quantities.
- WVDEP Spill Report for spills affecting streams
- Wetzel County Local Emergency Planning Committee (LEPC) Spills Report

Reportable quantities for hazardous substances are set forth in 40 CFR 110 and 117. The reportable quantities for the hundreds of hazardous substances listed range from as little as one (1) pound to as

much as 5,000 pounds, depending on the substance. Oil which is released in sufficient quantity to form a film or sheen on, or discoloration of, the surface of the water or the shoreline, or which deposits a sludge beneath the water surface on the shoreline is reportable. "Oil" includes but is not limited to petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes. A "sheen" is defined as an iridescent appearance on the surface of the water.

The Regional USEPA Administrator shall be notified within 60 days whenever a facility regulated under 40 CFR 112 has discharged more than 1,000 gallons of oil due to a single spill, or has twice within any 12-month period discharged oil to water in volumes of 42 gallons or greater.

The USEPA has defined "significant spills" to include releases within a 24-hour period of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act and Section 102 of CERCLA. The judgment of what is a "significant" spill must be made on a case-by-case basis by the site operator.

WV Spill Reporting Requirements Summary			
Kind of Spill	Discharge Location	Reportable Quantity	Regulatory Reference
Hazardous Substance	onto land	Table 302.4 in 40 CFR 302.4	WV Title 47, Section 47-11-2
	into water	"Final Reportable Quantity" or 100 lbs, whichever is less	
Any oil/hydrocarbon	onto land	25 Gallons	WV Title 47
	into water	causes sheen	WV Title 33-30-2.1

Disclaimer: All applicable codes, standards, policies, procedures, and best management practices must be followed whether specifically addressed in this plan or not. These include, but are not limited to the Occupational Safety and Health Administration (specifically 29 CFR 1910.120 and 1910.1200), USEPA/PADEP regulations, Equitrans policies and procedures, 40 CFR, Coast Guard regulations, local Ordinances, etc.

Section 7 - References

40 CFR §261.3

40 CFR §112

40 CFR §110.10

40 CFR §117.21

40 CFR §302.4

A Facility Owner/Operator's Guide to Oil Pollution Prevention. Spill Prevention, Control, and Countermeasure (SPCC) Regulation.


Figure 1 – Project Location Map

Figure 2 – Hospital Location and Directions



Mobley Run, 1, WV to Mon General Hospital Primary Care Drive 14.6 miles, 29 min

Mobley Run

- ↑ 1. Head southwest on Co Rd 15/3 toward N Fork Rd
0.2 mi
- ↩ 2. Turn left onto N Fork Rd
3.5 mi
- ↑ 3. Continue onto Brink Rd
4.5 mi
- ↘ 4. Turn right onto Buffalo Rd
5.7 mi
- ↘ 5. Turn right onto Marshall St
194 ft
- ↑ 6. Continue onto High St
0.4 mi
- ↘ 7. Turn right onto E Main St
 Destination will be on the right
0.3 mi

Mon General Hospital Primary Care

800 East Main Street, Mannington, WV 26582

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Attachment 1 – Emergency Contact Information

EMERGENCY CONTACT INFORMATION

In the event of an emergency, the on-site coordinator shall first ensure the safety of all personnel and, if possible, contain any spill or other event to the extent practicable. Upon initial containment of a spill or neutralization of a threat to personnel health, the on-site coordinator shall follow the chain of command and contact necessary individuals listed below.

<u>Operator Information</u>	<u>Key Emergency Numbers</u>
<u>Site Name:</u> Equitrans Expansion Project	<u>Plan Emergency and Environmental Supervisor:</u> Dave Durofchalk 412-395-5583 (office)
<u>Site Location:</u> Mobley Tap Long: -80° 32' 36.79" Lat: 39° 33' 45.94"	<u>Safety Coordinator:</u> Russell Grooms 724-579-0731
Webster Interconnect & H-319 Long: -80° 32' 42.73" Lat: 39° 33' 08.31"	<u>West Virginia Dept. of Environmental Protection:</u> 800-642-3074
<u>Operator:</u> Equitrans, LP 555 Southpointe Blvd, Suite 200 Canonsburg, PA 15317	<u>USCG/National Response Center (NRC):</u> 800-424-8802
<u>Land Agent:</u> Hanna McCoy 724-873-3476	<u>Wetzel County Emergency Management Agency:</u> 304-455-6960 (Emergency calls only)
<u>Chain of Command:</u> <i>Contact the following individuals in the order listed in the event of an accidental spill or emergency on-site.</i>	<u>Closest Fire Station:</u> Smithfield Fire Department Mannington Rd, Smithfield, WV 26437 304-334-3642
<u>Emergency Coordinator:</u> Dan Truman 304-627-6432 (office), 304-844-2174 (cell)	<u>Closest Hospital:</u> Mon General Hospital 800 E Main St Rd, Mannington, WV 26582 304-986-2996
<u>Safety Coordinator:</u> Russell Grooms 724-579-0731	<u>USEPA Region 3</u> 215-814-5000
<u>Environmental Coordinator:</u> Dave Durofchalk 412-395-5583 (office)	
<u>Permitting Supervisor:</u> Stephanie Frazier 412-553-5798	
<u>Environmental Manager of Performance and Compliance:</u> Jeannine Hammer 412-395-2553	

Attachment 2
Material and Waste Inventory

List of Oil and Fuel to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

List of Commercial Chemicals to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

List of Hazardous and Non-hazardous Wastes to be Used or Stored On-Site During Construction			
Type	Quantity (gal)	Containment Method	Location

Notes: **THESE TABLES TO BE COMPLETED AND MAINTAINED BY CONTRACTOR.**

MSDS for all substances listed in the above tables shall be provided by the contractor. All containers shall have temporary containment.

Attachment 3
Unanticipated Discovery of Contamination Plan

Unanticipated Discovery of Contamination Plan

Unanticipated Discovery of Contamination Plan Introduction

The purpose of this Unanticipated Discovery of Contamination Plan (Plan) is to provide work, investigation and reporting procedures for responding to the unanticipated discovery of contamination in soil, groundwater or sediment during excavation, construction or maintenance activities associated with construction of the Equitrans Expansion Project.

Consistent with this purpose, the objectives of this Plan are to protect the health and safety of project personnel and the environment and to prevent the spread of contamination during and after an unanticipated discovery of contamination.

The greatest potential for the discovery of unanticipated contamination will occur during the excavation of the pipeline trench. If any project personnel detects potential contamination such as:

- Odor;
- Visible staining on soil;
- Sheen on ground or purge water;
- Unidentified underground service tank;
- Potential cultural resources, including human remains; etc.,

the following response plan will be executed.

Unanticipated Discovery Response Plan

Stage 1 – Suspend Work Activities

All construction and/or maintenance work in the immediate area of the discovery shall stop. Personnel shall move to upwind areas as necessary.

Stage 2 – Identify Immediate Threats

If an immediate threat is detected, emergency response (i.e., 911) shall be notified. The area shall be evacuated.

Stage 3 – Identify and Secure Area

If safe to do so, the area immediately around the potential contamination shall be secured with safety fencing or flagging. Site personnel shall remain onsite to restrict access as appropriate.

Stage 4 – Conduct Notifications

Appropriate EQT environmental professionals and officials shall be notified of the potential contamination as described in the PPC plan. It shall be the decision of the EQT environmental professional (TBD) to determine environmental agency or public official notification requirements.

Stage 5 – Discovery Documentation Protocol

An appropriate EQT employee or designee will document the unanticipated contamination utilizing the attached Worksheet 1. Worksheet 1 includes instructions for the appropriate EQT employee or designee to record the site name, locations, and how suspected contamination was determined. The EQT employee or designee will coordinate with the construction contractor(s) who identified the contamination to assist in completing Worksheet 1.

Stage 6 – Remedial Action Planning

An onsite meeting (if appropriate) will be conducted among site personnel, EQT environmental professionals, and any appropriate contamination response contractors to determine remediation requirements and methodologies. If remediation activity is appropriate, an environmental consultant (if appropriate) should be contacted to assist with the remedial activity. Remedial activities should be conducted according to the following general sequence of events. This is a general plan and is not meant to apply to all contamination situations. A more robust, site-specific remedial action plan should be completed by an environmental consultant prior to completing remedial activities.

Step 1: Sampling – Representative samples should be collected and submitted to an environmental laboratory for analysis and/or waste classification. Results of this analysis may dictate notification requirements. An environmental consultant can assist in the determination of these requirements.

Step 2: Remedial Action Determination – Following laboratory analysis, the EQT environmental professional and/or the environmental consultant will evaluate the analysis results and, if appropriate, identify the type of remediation (in-situ, removal, etc.) to be completed.

Step 3: Remedial Action – EQT will mobilize an appropriate contractor and remediation activities will be conducted. Any soil and/or groundwater suspected of containing contamination will be segregated from clean soil and/or water using plastic sheets, fractionation tanks, or other appropriate methodologies. Containers will be clearly labeled. Known hazardous wastes will be labeled and separated with orange construction fencing.

Step 4: Disposal – Wastes will be disposed of properly at a permitted facility. EQT environmental professional or its environmental consultant will determine disposal requirements.

Stage 6 – Record Keeping

A record of the sequence of events from the beginning (unanticipated discovery) to the end (disposal) of the incident will be recorded and kept on file with the EQT environmental professional in accordance with all mandated record keeping requirements.

Worksheet 1 – Unanticipated Discovery of Contamination Documentation

Instructions: Complete this worksheet to document an unanticipated discovery of contamination event. Use a separate sheet (copy) for each occurrence.

A. Site Name, Physical Location, and Milepost

B. How Suspected Contamination was Determined (odor, stain, sheen, etc.). Include photographs as appropriate.

C. List dates, times, and officials notified

Attachment 2-3

Water Wells within 1 mile of the Project

Attachment 2-3								
Water Wells within 1 mile of the Project (Pennsylvania only)								
Nearest Project Feature	Distance (feet) / Direction of the Well Location	Well Depth	Depth To Bedrock (feet)	Well Yield (gpm)	Static Water Level (feet)	Water Well Use	Latitude	Longitude
Allegheny County, Pennsylvania (H-318)								
H318 ATWS10	2,618 / east	144	NR	NR	70	Industrial	40.25333	-79.91639
H318 ATWS10	2,902 / east	74	NR	NR	NR	Monitoring	40.2543	-79.91528
H318 ATWS10	2,911 / east	35	NR	NR	NR	Monitoring	40.25426	-79.91525
H318 ATWS10	2,911 / east	55	NR	NR	NR	Monitoring	40.25426	-79.91525
H318 ATWS10	2,996 / east	35	NR	NR	NR	Monitoring	40.25549	-79.91505
H318 ATWS10	2,618 / east	75.5	NR	250	35	Commercial	40.25333	-79.91639
H318 ATWS10	2,402 / east	56	NR	NR	NR	Monitoring	40.25431	-79.91707
H318 ATWS10	2,402 / east	35	NR	NR	NR	Monitoring	40.25431	-79.91707
H318 ATWS10	2,740 / east	22	NR	NR	NR	Monitoring	40.25435	-79.91586
H318 ATWS10	2,764 / east	25	NR	NR	NR	Monitoring	40.25548	-79.91589
H318 ATWS10	2,740 / east	35	NR	NR	NR	Monitoring	40.25435	-79.91586
H318 ATWS10	3,055 / east	25	NR	NR	NR	Monitoring	40.25654	-79.91512
H318 ATWS10	2,758 / east	35	NR	NR	NR	Monitoring	40.25353	-79.91585
H318 ATWS10	3,513 / east	30	NR	NR	NR	Monitoring	40.25719	-79.91366
H318 ATWS10	3,244 / east	35	NR	NR	NR	Monitoring	40.25639	-79.91437
H318 ATWS10	3,513 / east	35	NR	NR	NR	Monitoring	40.25719	-79.91366
H318 ATWS10	3,294 / east	35	NR	NR	NR	Monitoring	40.25633	-79.91417
H318 ATWS10	3,095 / east	35	NR	NR	NR	Monitoring	40.25535	-79.91467
H318 ATWS10	2,625 / east	16	16	NR	5	Monitoring	40.2556	-79.91642
H318 ATWS10	2,553 / east	15	15	NR	6	Monitoring	40.25536	-79.91663
H318 ATWS10	2,856 / east	20	15	NR	11	Monitoring	40.25623	-79.91575
H318 ATWS10	2,153 / east	33	NR	NR	NR	Mine	40.2575	-79.91917
H318 ATWS10	2,296 / east	22	12	NR	NR	Mine	40.255	-79.9175
H318 ATWS10	2,077 / east	30	NR	NR	NR	Mine	40.25611	-79.91861
H318 ATWS10	2,209 / east	27	2	NR	NR	Mine	40.25472	-79.91778
H318 ATWS10	1,926 / east	23.5	NR	NR	NR	Mine	40.25528	-79.91889
H318 ATWS10	3,604 / east	20	NR	NR	NR	Mine	40.25722	-79.91333
H318 ATWS10	2,396 / northeast	28	NR	NR	NR	Mine	40.25806	-79.91861
H318 ATWS10	2,524 / east	28	NR	NR	NR	Mine	40.25611	-79.91694
H318 ATWS10	3,299 / east	18	NR	NR	NR	Mine	40.25639	-79.91417
H318 ATWS10	2,952 / east	17	12	NR	10	Mine	40.25778	-79.91611
H318 ATWS10	2,798 / east	23	NR	NR	NR	Mine	40.25722	-79.91639
H318 ATWS10	2,775 / northeast	21	NR	NR	9	Mine	40.25833	-79.91722
H318 ATWS10	2,271 / east	25	NR	NR	NR	Mine	40.25583	-79.91778
H318 ATWS05a	2,411 / west	210	12	30	NR	Domestic	40.23694	-79.95583
H318 ATWS10	5,206 / east	75	NR	100	20	Industrial	40.25639	-79.90722
H318 ATWS10	2,618 / east	70	NR	70	39	Industrial	40.25333	-79.91639
Greene County, Pennsylvania (H-158/M-80, H-316, H-305, Pratt Compressor Station, Redhook Compressor Station)								
H316 AR08	1,424 / south	100	23	0.5	NR	Domestic	39.95667	-80.17833
H316 AR08	1,058 / south	79	21	20	NR	NR	39.95778	-80.17667
H316 AR08	809 / south	98	27	NR	NR	Public Supply	39.95861	-80.17639
H316 AR08	1,255 / south	170	7	13	NR	Domestic	39.95722	-80.17667
H316 ATWS08	4,229 / west	100	NR	NR	20	Domestic	39.96278	-80.19333
H316 ATWS08	4,861 / north	203.8	6	0.3	35.4	Domestic	39.97417	-80.16972
H316 AR08	4,622 / southwest	220	15	2	140	Domestic	39.95	-80.18694
H316 AR08	863 / southeast	105	10	5	48	Domestic	39.95917	-80.17528
H316 ATWS08	4,310 / north	100	7	5	35	Domestic	39.97306	-80.18444
H316 AR08	987 / southeast	80	8	4	15	Domestic	39.95889	-80.175
H316 ATWS08	4,765 / north	217.5	10	1.5	NR	Domestic	39.97417	-80.17056
H316 AR08	1,219 / southeast	41	NR	NR	39	Monitoring	39.95871	-80.17415
H316 AR08	3,661 / east	103	18	4	16	Domestic	39.95833	-80.165
H316 AR5a	2,138 / north	160	NR	1	80	Domestic	39.92556	-80.09861
H305 ATWS01	2,513 / north	165	NR	NR	NR	Domestic	39.92472	-80.12444
H316 AR5a	191 / north	90	61	NR	NR	Test	39.92028	-80.0975
H316 AR5a	913 / northeast	50	45	NR	NR	Test	39.92139	-80.095
H316 AR06a	281 / west	72.5	70	NR	NR	Test	39.91611	-80.09611
H316 AR5a	495 / northeast	63	2	NR	NR	Test	39.92083	-80.09639
H316 AR5a	668 / north	61	60	NR	NR	Test	39.92139	-80.09639

[illegible]

Nearest Project Feature	Distance (feet) / Direction of the Well Location	Well Depth	Depth To Bedrock (feet)	Well Yield (gpm)	Static Water Level (feet)	Water Well Use	Latitude	Longitude
H316 ATWS06	1,143 / east	178	8	0.75	23	Domestic	39.91611	-80.09
H316 ATWS06	1,229 / east	139.2	8	NR	26	Domestic	39.91667	-80.09
H316 Workspace	2,264 / north	71	18	2.5	NR	Domestic	39.92306	-80.12111
H316 AR7a	631 / east	240	6	35	NR	Domestic	39.90278	-80.08056
H316 ATWS07	3,319 / southwest	154	15	3	NR	Public Supply	39.89306	-80.09528
H316 ATWS07	4,076 / west	150	15	2	75	Domestic	39.89611	-80.10222
H316 AR5a	5,052 / north	54	15	5	NR	Domestic	39.93361	-80.09833
H316 ATWS07	4,238 / south	73	6	6.4	22	Domestic	39.88861	-80.08917
H316 AR7a	4,877 / south	128	10	2	NR	Domestic	39.90694	-80.06639
H316 ATWS06	1,021 / east	91	22	1.6	NR	Domestic	39.91389	-80.09
H316 Workspace	701 / north	307	16	3	225	Domestic	39.91861	-80.12361
H316 ROW	3,029 / south	195	4	1.5	NR	Domestic	39.90889	-80.10778
H316 AR7a	3,070 / south	102	10	3	82	Domestic	39.89444	-80.07806
H316 ATWS07	5,043 / south	120	NR	5	10	Domestic	39.88722	-80.08139
H316 ATWS03c	1,676 / south	158	NR	NR	63.9	Domestic	39.91167	-80.11583
H316 ATWS03c	4,210 / south	204	NR	NR	55.5	Domestic	39.90472	-80.115
H316 ATWS03c	4,210 / south	204	NR	0.25	NR	Domestic	39.90472	-80.115
Redhook Compressor Station/ H-316 L/R Site	6 / southwest	41.9	NR	NR	31.7	Unused	39.91611	-80.13028
Redhook Compressor Station/ H-316 L/R Site	25 / south	120	NR	NR	30	Domestic	39.91583	-80.12722
Redhook Compressor Station/ H-316 L/R Site	25 / south	120	NR	0.2	NR	Domestic	39.91583	-80.12722
H316 ATWS03c	1,311 / south	204	8	NR	NR	Domestic	39.91278	-80.11444
H305 ATWS01	2,881 / north	108	NR	NR	NR	Domestic	39.92583	-80.12444
H316 AR5a	5,251 / north	96	NR	NR	NR	Domestic	39.93417	-80.09722
H305 ATWS01	5,239 / north	199	3	3	NR	Domestic	39.93278	-80.1325
Washington County, Pennsylvania (H-318, H-148 Tap)								
H318 ATWS10	785 / west	120	NR	NR	NR	Observation	40.2536	-79.93
H318 ATWS10	781 / west	130	NR	NR	NR	Observation	40.25361	-79.92999
H318 ATWS10	784 / west	133	NR	NR	NR	Observation	40.25361	-79.93
H318 ATWS10	784 / west	130	NR	NR	NR	Observation	40.25361	-79.93
H318 ATWS10	2,156 / east	0	NR	125	NR	Industrial	40.25194	-79.91861
H318 ATWS10	2,156 / east	94	NR	NR	NR	Industrial	40.25194	-79.91861
H318 ATWS10	1,029 / east	98	NR	NR	50	Public Supply	40.25194	-79.92361

Source: Pennsylvania Department of Conservation and Natural Resources. 2016. PAGWIS Records Search. <http://www.dcnr.state.pa.us/topogeo/groundwater/pagwis/records/index.htm>. Accessed January 2016.

NR: not recorded in database

Attachment 7-1

Tables 7.3-1R, Appendices 7-A, 7-B and 7-C

Attachment 7-1
Table 7.3-1R
(Revised July 13, 2016)
Characteristics of Soils Affected by the Project*

Facility <i>a/</i>	County	Total Area (acres)	Slopes ≥ 15 percent <i>b/</i> (acres)	Designated Farmland <i>c/</i>		Hydric Soils <i>d/</i> (acres)	Shallow Depth to Groundwater <i>d/</i> (acres)	Stony / Rocky Soils <i>d/</i> (acres)	Poor Drainage Potential <i>d/</i> (acres)	Soils Prone to Erosion		Soils Prone to Soil Compaction <i>g/</i> (acres)	Poor Revegetation Potential <i>h/</i> (acres)
				Prime (acres)	Statewide Importance (acres)					By Water <i>e/</i> (acres)	By Wind <i>f/</i> (acres)		
H-305 Pipeline	Greene/PA	2.77	1.29	0.02	1.28	0	0	0	0	1.3	0	2.59	2.57
H-316 Pipeline	Greene/PA	62.23	34.29	8.00	8.46	0.63	0.63	0	0.63	27.12	0	20.31	44.76
H-318 Pipeline	Allegheny, Washington/PA	96.14	30.79	13.12	28.18	0.54	0.54	13.12	0.54	64.87	0	53.61	56.82
H-319 Pipeline	Wetzel/WV	0.84	0	0	0.84	0	0	0.84	0	0	0	0	0
H-158/M-80 Pipelines	Greene/PA	9.91	5.67	1.71	2.51	0	0	0	0	4.87	0	4.08	8.18
Pratt Compressor Station	Greene/PA	7.68	1.61	5.96	0.1	0	0	0	0	1.61	0	6.06	1.71
Redhook Compressor Station	Greene/PA	17.75	3.17	5.5	9.08	0	0	0	0	16.26	0	11.64	9.17
Webster Interconnect	Wetzel/WV	2.48	0.02	0	2.46	0	0	2.46	0	0.02	0	0	0.02
Mobley Tap Site (H-306)	Wetzel/WV	0.50	0	0	0.50	0	0	0.50	0	0	0	0	0
Applegate L/R Site	Allegheny/PA	0.39	0	0.39	0	0	0	0	0	0.39	0	0.39	0
Hartson L/R Site (H-148)	Washington/PA	0.11	0.11	0	0	0	0	0	0	0.11	0	0.11	0.11
H-302 Tap L/R Site	Greene/PA	0.33	0	0	0	0	0	0	0	0	0	0	0
Total Acres		201.13	76.95	34.7	53.41	1.17	1.17	16.92	1.17	116.55	0	98.79	123.34
Percent of Total Acres			38%	17%	27%	0.58%	1.52%	8%	0.58%	58%	0%	49%	61%

* The values in each row do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.

a/ The list of facilities includes the associated access roads, additional temporary workspaces, contractor yards, and staging areas in the acreage calculations for each facility.

However, the additional temporary workspaces, access roads, contractor yards and staging areas are also reported separately.

b/ Soils characterized by the NRCS as having representative slopes of 15 percent or greater.

c/ As designated by the NRCS.

d/ As designated by the NRCS.

e/ Based on K factor for the whole soil (Kw), the representative slope, and the nonirrigated land capability rating; a Kw rating of "moderate" was elevated to "high" when associated with steep slopes and when the Nonirrigated Capability Subclass included an "e," which indicates that erosion is a potential hazard for the soil type.

f/ Based on the Wind Erodibility Group scale; soils with a rating of 1 to 4 were ranked with a high potential for erosion due to wind.

g/ Based on 1) soils with poor drainage (somewhat poorly drained to poorly drained), 2) a high clay content (greater than 20 percent), or 3) a surface soil texture characterized as sandy clay loam or dominated by finer particles.

h/ Based on soils 1) that have a surface texture of sandy loam or coarser, 2) are somewhat excessively drained to excessively drained, 3) have slopes greater than 15 percent, or 4) have severe limitations (i.e., a Nonirrigated Capability Class of 3 or higher).

Sources: Soil Survey Staff 2015a, 2015b

Attachment 7-1
Table 7.3-1R
(Revised July 13, 2016)

Characteristics of Soils Affected by the Project* (Operation/Permanent Impact Areas)

Facility <u>a/</u>	County	Total Area (acres)	Slopes \geq 15 percent <u>b/</u> (acres)	Designated Farmland <u>c/</u>		Hydric Soils <u>d/</u> (acres)	Shallow Depth to Groundwater <u>d/</u> (acres)	Stony / Rocky Soils <u>d/</u> (acres)	Poor Drainage Potential <u>d/</u> (acres)	Soils Prone to Erosion		Soils Prone to Soil Compaction <u>g/</u> (acres)	Poor Revegetation Potential <u>h/</u> (acres)
				Prime (acres)	Statewide Importance (acres)					By Water <u>e/</u> (acres)	By Wind <u>f/</u> (acres)		
H-305 Pipeline	Greene/PA	0.61	0.28	0	0.28	0	0	0	0	0.28	0	0.57	0.57
H-316 Pipeline	Greene/PA	20.04	9.26	2.16	2.28	0.17	0.17	0	0.17	8.35	0	6.51	12.09
H-318 Pipeline	Allegheny, Washington/PA	26.71	7.70	3.01	7.05	0.14	0.14	3.28	0.14	16.74	0	14.74	15.54
H-319 Pipeline	Wetzel/WV	0.84	0	0	0.84	0	0	0.84	0	0	0	0	0
H-158/M-80 Pipelines	Greene/PA	1.59	0.91	0.27	0.40	0	0	0	0	0.78	0	0.65	1.31
Pratt Compressor Station	Greene/PA	7.68	1.61	5.96	0.1	0	0	0	0	1.61	0	6.06	1.71
Redhook Compressor Station	Greene/PA	17.75	3.17	5.5	9.08	0	0	0	0	16.26	0	11.64	9.17
Webster Interconnect	Wetzel/WV	2.48	0.02	0	2.46	0	0	2.46	0	0.02	0	0	0.02
Mobley Tap Site (H-306)	Wetzel/WV	0.50	0	0	0.50	0	0	0.50	0	0	0	0	0
Applegate L/R Site	Allegheny/PA	0.39	0	0.39	0	0	0	0	0	0.39	0	0.39	0
Hartson L/R Site (H-148)	Washington/PA	0.11	0.11	0	0	0	0	0	0	0.11	0	0.11	0.11
H-302 Tap L/R Site	Greene/PA	0.33	0	0	0	0	0	0	0	0	0	0	0
Total Acres		79.03	23.06	17.29	22.99	0.31	0.31	7.08	0.31	44.54	0	40.67	40.52
Percent of Total Acres			29%	22%	29%	0.39%	1.34%	9%	0.39%	56%	0%	51%	51%

* The values in each row do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.

a/ The list of facilities includes the associated access roads, additional temporary workspaces, contractor yards, and staging areas in the acreage calculations for each facility.

However, the additional temporary workspaces, access roads, contractor yards and staging areas are also reported separately.

b/ Soils characterized by the NRCS as having representative slopes of 15 percent or greater.

c/ As designated by the NRCS.

d/ As designated by the NRCS.

e/ Based on K factor for the whole soil (Kw), the representative slope, and the nonirrigated land capability rating; a Kw rating of "moderate" was elevated to "high" when associated with steep slopes and when the Nonirrigated Capability Subclass included an "e," which indicates that erosion is a potential hazard for the soil type.

f/ Based on the Wind Erodibility Group scale; soils with a rating of 1 to 4 were ranked with a high potential for erosion due to wind.

g/ Based on 1) soils with poor drainage (somewhat poorly drained to poorly drained), 2) a high clay content (greater than 20 percent), or 3) a surface soil texture characterized as sandy clay loam or dominated by finer particles.

h/ Based on soils 1) that have a surface texture of sandy loam or coarser, 2) are somewhat excessively drained to excessively drained, 3) have slopes greater than 15 percent, or 4) have severe limitations (i.e., a Nonirrigated Capability Class of 3 or higher).

Sources: Soil Survey Staff 2015a, 2015b

Attachment 7-1
Table 7.3-1R
(Revised July 13, 2016)

Characteristics of Soils Affected by the Project* (Construction/Temporary Impact Areas)

Facility <u>a/</u>	County	Total Area (acres)	Slopes ≥15 percent <u>b/</u> (acres)	Designated Farmland <u>c/</u>		Hydric Soils <u>d/</u> (acres)	Shallow Depth to Groundwater <u>d/</u> (acres)	Stony / Rocky Soils <u>d/</u> (acres)	Poor Drainage Potential <u>d/</u> (acres)	Soils Prone to Erosion		Soils Prone to Soil Compaction <u>g/</u> (acres)	Poor Revegetation Potential <u>h/</u> (acres)
				Prime (acres)	Statewide Importance (acres)					By Water <u>g/</u> (acres)	By Wind <u>f/</u> (acres)		
H-305 Pipeline	Greene/PA	2.16	1.01	0.02	1.00	0	0	0	0	1.02	0	2.02	2.00
H-316 Pipeline	Greene/PA	42.22	25.03	5.85	6.18	0.46	0.46	0.00	0.46	19.80	0	14.83	33.09
H-318 Pipeline	Allegheny, Washington/PA	69.43	23.09	9.84	21.14	0.41	0.41	9.84	0.41	48.37	0	39.93	42.62
H-319 Pipeline	Wetzel/WV	0.51	0	0	0.51	0	0	0.51	0	0	0	0	0
H-158/M-80 Pipelines	Greene/PA	8.32	4.76	1.44	2.11	0	0	0	0	4.09	0	3.43	7.04
Pratt Compressor Station	Greene/PA	7.68	1.61	5.96	0.1	0	0	0	0	1.61	0	6.06	1.71
Redhook Compressor Station	Greene/PA	17.75	3.17	5.5	9.08	0	0	0	0	16.26	0	11.64	9.17
Webster Interconnect	Wetzel/WV	2.48	0.02	0	2.46	0	0	2.46	0	0.02	0	0	0.02
Mobley Tap Site (H-306)	Wetzel/WV	0.50	0	0	0.50	0	0	0.50	0	0	0	0	0
Applegate L/R Site	Allegheny/PA	0.39	0	0.39	0	0	0	0	0	0.39	0	0.39	0
Hartson L/R Site (H-148)	Washington/PA	0.11	0.11	0	0	0	0	0	0	0.11	0	0.11	0.11
H-302 Tap L/R Site	Greene/PA	0.33	0	0	0	0	0	0	0	0	0	0	0
Total Acres		151.89	58.80	29.00	43.08	0.87	0.87	13.31	0.87	91.67	0	78.41	95.76
Percent of Total Acres			39%	19%	28%	0.57%	1.48%	9%	0.57%	60%	0%	52%	63%

* The values in each row do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.

a/ The list of facilities includes the associated access roads, additional temporary workspaces, contractor yards, and staging areas in the acreage calculations for each facility.

However, the additional temporary workspaces, access roads, contractor yards and staging areas are also reported separately.

b/ Soils characterized by the NRCS as having representative slopes of 15 percent or greater.

c/ As designated by the NRCS.

d/ As designated by the NRCS.

e/ Based on K factor for the whole soil (Kw), the representative slope, and the nonirrigated land capability rating; a Kw rating of "moderate" was elevated to "high" when associated with steep slopes and when the Nonirrigated Capability Subclass included an "e," which indicates that erosion is a potential hazard for the soil type.

f/ Based on the Wind Erodibility Group scale; soils with a rating of 1 to 4 were ranked with a high potential for erosion due to wind.

g/ Based on 1) soils with poor drainage (somewhat poorly drained to poorly drained), 2) a high clay content (greater than 20 percent), or 3) a surface soil texture characterized as sandy clay loam or dominated by finer particles.

h/ Based on soils 1) that have a surface texture of sandy loam or coarser, 2) are somewhat excessively drained to excessively drained, 3) have slopes greater than 15 percent, or 4) have severe limitations (i.e., a Nonirrigated Capability Class of 3 or higher).

Sources: Soil Survey Staff 2015a, 2015b

Attachment 7-1
Table 7.3-1R
(Revised July 13, 2016)

Characteristics of Soils Affected by the Project* (Additional Temporary Work Space)

Facility <u>a/</u>	County	Total Area (acres)	Slopes ≥15 percent <u>b/</u> (acres)	Designated Farmland <u>c/</u>		Hydric Soils <u>d/</u> (acres)	Shallow Depth to Groundwater <u>d/</u> (acres)	Stony / Rocky Soils <u>d/</u> (acres)	Poor Drainage Potential <u>d/</u> (acres)	Soils Prone to Erosion		Soils Prone to Soil Compaction <u>g/</u> (acres)	Poor Revegetation Potential <u>h/</u> (acres)
				Prime (acres)	Statewide Importance (acres)					By Water <u>g/</u> (acres)	By Wind <u>f/</u> (acres)		
H-305 Pipeline	Greene/PA	1.01	0.82	0	0.19	0	0	0	0	0.19	0	1.01	1.01
H-316 Pipeline	Greene/PA	20.43	14.17	2.21	1.03	0	0	0	0	4.38	0	2.95	14.73
H-318 Pipeline	Allegheny, Washington/PA	44.44	7.39	3.61	12.06	0.01	0.01	0	0.01	18.81	0	10.30	11.04
H-319 Pipeline	Wetzel/WV	0.34	0	0	0.09	0	0	0.09	0	0	0	0	0
H-158/M-80 Pipelines	Greene/PA	3.87	0.05	0	0.48	0	0	0	0	0	0	0.48	0.53
Pratt Compressor Station	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Redhook Compressor Station	Greene/PA	1.50	0	0	0.92	0	0	0	0	0	0	1.50	1.50
Webster Interconnect	Wetzel/WV	1.55	0.02	0	1.53	0	0	0.02	0	0.02	0	1.53	0.02
Mobley Tap Site (H-306)	Wetzel/WV	0.11	0	0	0.11	0	0	0.11	0	0	0	0.11	0
Applegate L/R Site	Allegheny/PA	0	0	0	0	0	0	0	0	0	0	0	0
Hartson L/R Site (H-148)	Washington/PA	0	0	0	0	0	0	0	0	0	0	0	0
H-302 Tap L/R Site	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Total Acres		73.25	22.45	5.82	16.41	0.01	0.01	0.22	0.01	23.40	0	17.88	28.83
Percent of Total Acres			31%	8%	22%	0.01%	0.04%	0%	0.01%	32%	0%	24%	39%

* The values in each row do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.

a/ The list of facilities includes the associated access roads, additional temporary workspaces, contractor yards, and staging areas in the acreage calculations for each facility.

However, the additional temporary workspaces, access roads, contractor yards and staging areas are also reported separately.

b/ Soils characterized by the NRCS as having representative slopes of 15 percent or greater.

c/ As designated by the NRCS.

d/ As designated by the NRCS.

e/ Based on K factor for the whole soil (Kw), the representative slope, and the nonirrigated land capability rating; a Kw rating of "moderate" was elevated to "high" when associated with steep slopes and when the Nonirrigated Capability Subclass included an "e," which indicates that erosion is a potential hazard for the soil type.

f/ Based on the Wind Erodibility Group scale; soils with a rating of 1 to 4 were ranked with a high potential for erosion due to wind.

g/ Based on 1) soils with poor drainage (somewhat poorly drained to poorly drained), 2) a high clay content (greater than 20 percent), or 3) a surface soil texture characterized as sandy clay loam or dominated by finer particles.

h/ Based on soils 1) that have a surface texture of sandy loam or coarser, 2) are somewhat excessively drained to excessively drained, 3) have slopes greater than 15 percent, or 4) have severe limitations (i.e., a Nonirrigated Capability Class of 3 or higher).

Sources: Soil Survey Staff 2015a, 2015b

Attachment 7-1

Table 7.3-1R

(Revised July 13, 2016)

Characteristics of Soils Affected by the Project* (Access Roads)

Facility <u>a/</u>	County	Total Area (acres)	Slopes ≥15 percent <u>b/</u> (acres)	Designated Farmland <u>c/</u>		Hydric Soils <u>d/</u> (acres)	Shallow Depth to Groundwater <u>d/</u> (acres)	Stony / Rocky Soils <u>d/</u> (acres)	Poor Drainage Potential <u>d/</u> (acres)	Soils Prone to Erosion		Soils Prone to Soil Compaction <u>g/</u> (acres)	Poor Revegetation Potential <u>h/</u> (acres)
				Prime (acres)	Statewide Importance (acres)					By Water <u>e/</u> (acres)	By Wind <u>f/</u> (acres)		
H-305 Pipeline	Greene/PA	0.52	0.34	0	0	0	0	0	0	0.34	0	0.34	0.34
H-316 Pipeline	Greene/PA	3.43	1.47	0.68	0.63	0	0	0	0	2.15	0	1.44	2.41
H-318 Pipeline	Allegheny, Washington/PA	3.80	0.75	0.76	0.44	0	0	0.14	0	1.20	0	1.46	1.52
H-319 Pipeline	Wetzel/WV	0.02	0	0	0.02	0	0	0.02	0	0	0	0	0
H-158/M-80 Pipelines	Greene/PA	0.49	0.23	0	0.13	0	0	0	0	0.35	0	0.35	0.36
Pratt Compressor Station	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Redhook Compressor Station	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Webster Interconnect	Wetzel/WV	0.12	0	0	0.12	0	0	0.12	0	0	0	0	0
Mobley Tap Site (H-306)	Wetzel/WV	0	0	0	0	0	0	0	0	0	0	0	0
Applegate L/R Site	Allegheny/PA	0	0	0	0	0	0	0	0	0	0	0	0
Hartson L/R Site (H-148)	Washington/PA	0	0	0	0	0	0	0	0	0	0	0	0
H-302 Tap L/R Site	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Total Acres		8.38	2.79	1.44	1.34	0.00	0.00	0.28	0.00	4.04	0	3.59	4.63
Percent of Total Acres			33%	17%	16%	0.00%	0.00%	3%	0.00%	48%	0%	43%	55%

* The values in each row do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.

a/ The list of facilities includes the associated access roads, additional temporary workspaces, contractor yards, and staging areas in the acreage calculations for each facility.

However, the additional temporary workspaces, access roads, contractor yards and staging areas are also reported separately.

b/ Soils characterized by the NRCS as having representative slopes of 15 percent or greater.

c/ As designated by the NRCS.

d/ As designated by the NRCS.

e/ Based on K factor for the whole soil (Kw), the representative slope, and the nonirrigated land capability rating; a Kw rating of "moderate" was elevated to "high" when associated with steep slopes and when the Nonirrigated Capability Subclass included an "e," which indicates that erosion is a potential hazard for the soil type.

f/ Based on the Wind Erodibility Group scale; soils with a rating of 1 to 4 were ranked with a high potential for erosion due to wind.

g/ Based on 1) soils with poor drainage (somewhat poorly drained to poorly drained), 2) a high clay content (greater than 20 percent), or 3) a surface soil texture characterized as sandy clay loam or dominated by finer particles.

h/ Based on soils 1) that have a surface texture of sandy loam or coarser, 2) are somewhat excessively drained to excessively drained, 3) have slopes greater than 15 percent, or 4) have severe limitations (i.e., a Nonirrigated Capability Class of 3 or higher).

Sources: Soil Survey Staff 2015a, 2015b

Attachment 7-1
Table 7.3-1R
(Revised July 13, 2016)

Characteristics of Soils Affected by the Project* (Contractor Yards and Staging Areas)

Facility <u>a/</u>	County	Total Area (acres)	Slopes ≥ 15 percent <u>b/</u> (acres)	Designated Farmland <u>c/</u>		Hydric Soils <u>d/</u> (acres)	Shallow Depth to Groundwater <u>d/</u> (acres)	Stony / Rocky Soils <u>d/</u> (acres)	Poor Drainage Potential <u>d/</u> (acres)	Soils Prone to Erosion		Soils Prone to Soil Compaction <u>g/</u> (acres)	Poor Revegetation Potential <u>h/</u> (acres)
				Prime (acres)	Statewide Importance (acres)					By Water <u>e/</u> (acres)	By Wind <u>f/</u> (acres)		
H-305 Pipeline	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
H-316 Pipeline	Greene/PA	1.82	0	0	1.82	0	0	0	0	0	0	1.82	1.82
H-318 Pipeline	Allegheny, Washington/PA	6.21	2.19	0.37	0.12	0	0	0	0	0.37	0	3.41	5.84
H-319 Pipeline	Wetzel/WV	0.25	0	0	0.25	0	0	0	0	0	0	0	0
H-158/M-80 Pipelines	Greene/PA	3.34	1.88	0.00	0.71	0	0	0	0	1.45	0	2.16	2.59
Pratt Compressor Station	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Redhook Compressor Station	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Webster Interconnect	Wetzel/WV	0	0	0	0	0	0	0	0	0	0	0	0
Mobley Tap Site (H-306)	Wetzel/WV	0	0	0	0	0	0	0	0	0	0	0	0
Applegate L/R Site	Allegheny/PA	0	0	0	0	0	0	0	0	0	0	0	0
Hartson L/R Site (H-148)	Washington/PA	0	0	0	0	0	0	0	0	0	0	0	0
H-302 Tap L/R Site	Greene/PA	0	0	0	0	0	0	0	0	0	0	0	0
Total Acres		11.62	4.07	0.37	2.90	0	0	0	0	1.82	0	7.39	10.25
Percent of Total Acres			35%	3%	25%	0%	0%	0%	0%	16%	0%	64%	88%

* The values in each row do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.

a/ The list of facilities includes the associated access roads, additional temporary workspaces, contractor yards, and staging areas in the acreage calculations for each facility.

However, the additional temporary workspaces, access roads, contractor yards and staging areas are also reported separately.

b/ Soils characterized by the NRCS as having representative slopes of 15 percent or greater.

c/ As designated by the NRCS.

d/ As designated by the NRCS.

e/ Based on K factor for the whole soil (Kw), the representative slope, and the nonirrigated land capability rating; a Kw rating of "moderate" was elevated to "high" when associated with steep slopes and when the Nonirrigated Capability Subclass included an "e," which indicates that erosion is a potential hazard for the soil type.

f/ Based on the Wind Erodibility Group scale; soils with a rating of 1 to 4 were ranked with a high potential for erosion due to wind.

g/ Based on 1) soils with poor drainage (somewhat poorly drained to poorly drained), 2) a high clay content (greater than 20 percent), or 3) a surface soil texture characterized as sandy clay loam or dominated by finer particles.

h/ Based on soils 1) that have a surface texture of sandy loam or coarser, 2) are somewhat excessively drained to excessively drained, 3) have slopes greater than 15 percent, or 4) have severe limitations (i.e., a Nonirrigated Capability Class of 3 or higher).

Sources: Soil Survey Staff 2015a, 2015b

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)
Soil Map Units by Milepost

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/ Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
H-158/M-80 Pilelines															
0.00	0.03	0.03	CaD	Greene/PA	Calvin silt loam, 15 to 25 percent slopes	1.57	0	0	0	0	0	0	1.57	1.57	1.57
0.03	0.06	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.08	0	0	0	0	0	0	0	0	1.08
0.06	0.09	0.03	Nw	Greene/PA	Newark silt loam	0	0	2.51	0	0	0	0	2.51	2.51	2.51
0.09	0.13	0.04	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.43	0	0	0	0	0	0	0	0	1.43
0.13	0.18	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	1.59	0	0	0	0	0	0	1.59	0	1.59
0.18	0.24	0.06	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	1.71	0	0	0	0	0	1.71	0	0
H-305 Pipeline															
0.00	0.00	0.00	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.02	0	0	0	0	0	0.02	0.02	0
0.00	0.09	0.09	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.28	0	0	0	0	1.28	1.28	1.28
0.09	0.10	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	1.29	0	0	0	0	0	0	1.29	1.29	1.29
H-316 Pipeline															
0.00	0.00	0.00	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.74	0	0	0	0	0.74	0.74	0.74
0.00	0.05	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	1.12	0	0	0	0	0	1.12	1.12	0
0.05	0.06	0.01	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.15	0	0	0	0	0	0.15	0	0
0.06	0.11	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.81	0	0	0	0	0	0	0.81	0	0.81
0.11	0.15	0.04	Du	Greene/PA	Dunning silt loam	0	0	0	0.63	0.63	0	0.63	0	0.63	0.63
0.15	0.20	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.4	0	0	0	0	0	0	0	0	1.4
0.20	0.24	0.04	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.43	0	0	0	0	0	0	0.43	0.43	0.43
0.24	0.27	0.03	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.49	0	0	0	0	0	0	0.49	0	0.49
0.27	0.48	0.22	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	2.39	0	0	0	0	0	0	2.39	2.39	2.39
0.48	0.51	0.03	WeB	Greene/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0.48	0	0	0	0	0	0.48	0.48	0.48
0.51	0.64	0.12	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	1.3	0	0	0	0	0	0	1.3	1.3	1.3
0.64	0.91	0.27	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	4.34	0	0	0	0	4.34	4.34	4.34
0.91	0.97	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.98	0	0	0	0	0	0	0.98	0	0.98
0.97	1.02	0.04	UdB	Greene/PA	Udorthents, smoothed, gently sloping	0	0	0	0	0	0	0	0	0.9	0.9
1.02	1.10	0.09	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	1.47	0	0	0	0	0	0	1.47	0	1.47
1.10	1.20	0.10	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	1.45	0	0	0	0	0	1.45	0	0
1.20	1.23	0.03	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.62	0	0	0	0	0.62	0	0.62
1.23	1.27	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.65	0	0	0	0	0	0	0.65	0	0.65
1.27	1.33	0.07	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.97	0	0	0	0	0	0	0	0	1.97
1.33	1.34	0.01	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
1.34	1.35	0.01	Nw	Greene/PA	Newark silt loam	0	0	0.07	0	0	0	0	0	0.07	0.07
1.35	1.39	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	1.12	0	0	0	0	0	1.12	1.12	0
1.39	1.45	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.98	0	0	0	0	0	0	0.98	0	0.98
1.45	1.49	0.04	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.83	0	0	0	0	0.83	0	0.83
1.49	1.56	0.07	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	1.59	0	0	0	0	0	0	1.59	0	1.59
1.56	1.61	0.05	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.45	0.45	0
1.61	1.64	0.02	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0.36	0	0	0	0	0.36	0.36	0.36
1.64	1.67	0.04	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.91	0	0	0	0	0	0	0.91	0	0.91
1.67	1.71	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.65	0	0	0	0	0	0	0.65	0	0.65
1.71	1.74	0.03	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0.54	0	0	0	0	0.54	0.54	0.54
1.74	1.80	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.4	0	0	0	0	0	0	0	0	1.4
1.80	1.82	0.02	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.41	0	0	0	0	0.41	0	0.41
1.82	1.85	0.03	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.68	0	0	0	0	0	0	0.68	0	0.68
1.85	1.97	0.12	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	1.07	1.07	0
1.97	2.05	0.08	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	1.16	0	0	0	0	0	1.16	0	0
2.05	2.08	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.84	0	0	0	0	0	0	0	0	0.84
2.08	2.14	0.05	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	1.88	0	0	0	0	0	1.88	1.88	0
2.14	2.18	0.04	WeD	Greene/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.18	2.26	0.08	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	2.25	0	0	0	0	0	0	0	0	2.25
2.26	2.28	0.02	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
2.28	2.38	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	2.81	0	0	0	0	0	0	0	0	2.81
2.38	2.46	0.08	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.29	0	0	0	0	1.29	1.29	1.29
2.46	2.56	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	2.81	0	0	0	0	0	0	0	0	2.81
2.56	2.58	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.11	0	0	0	0	0	0	0.11	0.11	0.11
2.58	2.61	0.04	BoB	Greene/PA	Brooke silty clay loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.61	2.73	0.11	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	1.19	0	0	0	0	0	0	1.19	1.19	1.19
2.73	2.79	0.06	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.69	0	0	0	0	0	0	0	0	1.69
2.79	2.83	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	1.12	0	0	0	0	0	1.12	1.12	0
2.83	2.97	0.14	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	12.99	0	0	0	0	0	0	0	0	12.99
H-318 Pipeline															
0.00	0.07	0.07	GuB	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0	1.92	0	0	0	0	0	1.92	1.92	0
0.07	0.12	0.05	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.7	0	0	0	0	0	0	0.7	0.7	0.7
0.12	0.22	0.10	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	6.94	0	0	0	0	6.94	0	0
0.22	0.23	0.00	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.4	0	0	0	0	0	0	0.4	0.4	0.4
0.23	0.29	0.06	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	1.92	0	0	0	0	0	0	1.92	1.92	1.92
0.29	0.36	0.07	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.98	0	0	0	0	0	0	0.98	0.98	0.98
0.36	0.61	0.25	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	7.28	0	0	0	0	7.28	0	0
0.61	0.70	0.09	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	2.87	0	0	0	0	0	0	2.87	2.87	2.87
0.70	0.75	0.05	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	1.46	0	0	0	0	1.46	0	0
0.75	0.80	0.05	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	1.14	0	0	0	0	1.14	0	1.14	0	1.14
0.80	0.91	0.11	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	3.21	0	0	0	0	3.21	0	0

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)
Soil Map Units by Milepost

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
0.91	1.02	0.11	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	1.53	0	0	0	0	0	0	1.53	1.53	1.53
1.02	1.09	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	1.6	0	0	0	0	1.6	0	1.6	0	1.6
1.09	1.17	0.08	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.56	0	0	0	0	1.56	1.56	1.56
1.17	1.23	0.06	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.84	0	0	0	0	0	0	0.84	0.84	0.84
1.23	1.29	0.05	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.97	0	0	0	0	0.97	0.97	0.97
1.29	1.34	0.06	CwD	Allegheny/PA	Culleoka-Westmoreland silt loams, 15 to 25 percent slopes	0.72	0	0	0	0	0	0	0.72	0.72	0.72
1.34	1.38	0.04	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0.58	0	0	0	0	0	0.58	0.58	0
1.38	1.43	0.04	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.52	0	0	0	0	0	0	0.52	0.52	0.52
1.43	1.52	0.10	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	1.45	0	0	0	0	0	1.45	1.45	0
1.52	1.56	0.04	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.78	0	0	0	0	0.78	0.78	0.78
1.56	1.61	0.05	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.48	0	0	0	0	0	0	0.48	0.48	0.48
1.61	1.68	0.07	DoE	Allegheny/PA	Dormont silt loam, 25 to 35 percent slopes	2.04	0	0	0	0	0	0	2.04	2.04	2.04
1.68	1.75	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	1.6	0	0	0	0	1.6	0	1.6	0	1.6
1.75	1.81	0.06	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	1.23	0	0	0	0	1.23	0	1.23	1.23	1.23
1.81	1.90	0.08	CwC	Allegheny/PA	Culleoka-Westmoreland silt loams, 8 to 15 percent slopes	0	0	0.88	0	0	0	0	0.88	0	0.88
1.90	2.00	0.10	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	2.39	0	0	0	0	0	0	2.39	2.39
2.00	2.17	0.17	AqB	Allegheny/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	1.52	1.52	0
2.17	2.20	0.03	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.67	0	0	0	0	0.67	0	0.67	0	0.67
2.20	2.27	0.07	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	1.67	0	0	0	0	0	0	1.67	1.67
2.27	2.37	0.10	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	2.05	0	0	0	0	2.05	0	2.05	2.05	2.05
2.37	2.64	0.26	SmD	Allegheny/PA	Strip mines, 8 to 25 percent slopes	0	0	0	0	0	4.06	0	0	4.06	4.06
2.64	2.68	0.04	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.82	0	0	0	0	0.82	0	0.82	0.82	0.82
2.68	2.75	0.07	GOF	Allegheny/PA	Gilpin-Upsbur complex, very steep	1.14	0	0	0	0	0	0	1.14	1.14	1.14
2.75	2.80	0.05	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	1.2	0	0	0	0	0	0	1.2	1.2
2.80	2.81	0.01	GOF	Allegheny/PA	Gilpin-Upsbur complex, very steep	0.16	0	0	0	0	0	0	0.16	0.16	0.16
2.81	2.85	0.05	URB	Allegheny/PA	Urban land-Rainsboro complex, gently sloping	0	0	0	0	0	0	0	1.83	0	0
2.85	2.89	0.04	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.96	0	0	0	0	0	0	0.96	0.96
2.89	2.95	0.06	RaA	Allegheny/PA	Rainsboro silt loam, 0 to 3 percent slopes	0	0.37	0	0	0	0	0	0	0.37	0
2.95	3.12	0.17	W		Water	-	-	-	-	-	-	-	-	-	-
3.12	3.21	0.09	Us	Washington/PA	Udorthents, smoothed	0	0.69	0	0	0	0	0	0	0	0
3.21	3.25	0.04	DiF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.57	0	0	0	0	0	0	0	0	0.57
3.25	3.36	0.11	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	1.87	0	0	0	0	1.87	1.87	1.87
3.36	3.49	0.13	DiF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.86	0	0	0	0	0	0	0	0	1.86
3.49	3.62	0.13	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	2.53	0	0	0	0	2.53	2.53	2.53
3.62	3.65	0.03	DiF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.43	0	0	0	0	0	0	0	0	0.43
3.65	3.71	0.06	WeB	Washington/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	1.08	0	0	0	0	0	1.08	1.08	1.08
3.71	3.73	0.02	WeC	Washington/PA	Westmoreland silt loam, 8 to 15 percent slopes	0	0	0.48	0	0	0	0	0.48	0.48	0.48
3.73	3.76	0.03	DiF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.43	0	0	0	0	0	0	0	0	0.43
3.76	3.77	0.01	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.48	0	0	0	0	0.48	0.48	0.48
3.77	3.83	0.06	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.17	0	0	0	0	1.17	1.17	1.17
3.83	3.83	0.00	DiF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.19	0	0	0	0	0	0	0	0	0.19
3.83	3.89	0.06	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	1.02	0	0	0	0	1.02	1.02	1.02
3.89	3.90	0.02	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0.45	0	0	0	0	0	0	0.45	0.45	0.45
3.90	3.95	0.05	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.97	0	0	0	0	0.97	0.97	0.97
3.95	4.01	0.06	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	1.36	0	0	0	0	0	0	1.36	1.36	1.36
4.01	4.08	0.07	CaB	Washington/PA	Calvin silt loam, 3 to 8 percent slopes	0	0	0.92	0	0	0	0	0.92	0.92	0.92
4.08	4.20	0.12	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	2.73	0	0	0	0	0	0	2.73	2.73	2.73
4.20	4.25	0.05	Fa	Washington/PA	Fairplay (marl) silt loam	0	0	0	0.54	0.54	0	0.54	0	0	0.54
4.25	4.27	0.02	WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0.81	0	0	0	0	0	0.81	0.81	0.81

H-319 Pipeline															
0.00	0.04	0.04	Sk	Wetzel/WV	Skidmore gravelly loam	0	0	0.84	0	0	0.84	0	0	0	0

Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.

The values in each column do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.
Soil limitations are reported in acres.

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)
Soil Map Units by Milepost (Operation/Permanent Impact Areas)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
H-158/M-80 Pipelines															
0.00	0.03	0.03	CaD	Greene/PA	Calvin silt loam, 15 to 25 percent slopes	0.25	0	0	0	0	0	0	0.25	0.25	0.25
0.03	0.06	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.17	0	0	0	0	0	0	0	0	0.17
0.06	0.09	0.03	Nw	Greene/PA	Newark silt loam	0	0	0.40	0	0	0	0	0	0.40	0.40
0.09	0.13	0.04	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.23	0	0	0	0	0	0	0	0	0.23
0.13	0.18	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.25	0	0	0	0	0	0	0.25	0	0.25
0.18	0.24	0.06	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.27	0	0	0	0	0	0.27	0	0
H-305 Pipeline															
0.00	0.00	0.00	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.00	0.09	0.09	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.28	0	0	0	0	0.28	0.28	0.28
0.09	0.10	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.28	0	0	0	0	0	0	0	0.28	0.28
H-316 Pipeline															
0.00	0.00	0.00	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.00	0.05	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.30	0	0	0	0	0	0.30	0.30	0
0.05	0.06	0.01	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.04	0	0	0	0	0	0.04	0	0
0.06	0.11	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.22	0	0	0	0	0	0	0.22	0	0.22
0.11	0.15	0.04	Du	Greene/PA	Dunning silt loam	0	0	0	0.17	0.17	0	0.17	0	0.17	0.17
0.15	0.20	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.38	0	0	0	0	0	0	0	0	0.38
0.20	0.24	0.04	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.12	0	0	0	0	0	0	0	0.12	0.12
0.24	0.27	0.03	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.13	0	0	0	0	0	0	0.13	0	0.13
0.27	0.48	0.22	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.65	0	0	0	0	0	0	0	0.65	0.65
0.48	0.51	0.03	WeB	Greene/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0.13	0	0	0	0	0	0.13	0.13	0.13
0.51	0.64	0.12	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.35	0	0	0	0	0	0	0	0.35	0.35
0.64	0.91	0.27	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.17	0	0	0	0	1.17	1.17	1.17
0.91	0.97	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.26	0	0	0	0	0	0	0.26	0	0.26
0.97	1.02	0.04	UDB	Greene/PA	Udorthents, smoothed, gently sloping	0	0	0	0	0	0	0	0	0.24	0.24
1.02	1.10	0.09	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.40	0	0	0	0	0	0	0.40	0	0.40
1.10	1.20	0.10	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.39	0	0	0	0	0	0.39	0	0
1.20	1.23	0.03	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.17	0	0	0	0	0.17	0	0.17
1.23	1.27	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.18	0	0	0	0	0	0	0.18	0	0.18
1.27	1.33	0.07	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.53	0	0	0	0	0	0	0	0	0.53
1.33	1.34	0.01	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
1.34	1.35	0.01	Nw	Greene/PA	Newark silt loam	0	0	0.02	0	0	0	0	0	0.02	0.02
1.35	1.39	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.30	0	0	0	0	0	0.30	0.30	0
1.39	1.45	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.26	0	0	0	0	0	0	0.26	0	0.26
1.45	1.49	0.04	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.22	0	0	0	0	0.22	0	0.22
1.49	1.56	0.07	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.43	0	0	0	0	0	0	0.43	0	0.43
1.56	1.61	0.05	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.12	0.12	0
1.61	1.64	0.02	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0.10	0	0	0	0	0.10	0.10	0.10
1.64	1.67	0.04	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.25	0	0	0	0	0	0	0.25	0	0.25
1.67	1.71	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.18	0	0	0	0	0	0	0.18	0	0.18
1.71	1.74	0.03	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0.15	0	0	0	0	0.15	0.15	0.15
1.74	1.80	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.38	0	0	0	0	0	0	0	0	0.38
1.80	1.82	0.02	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.11	0	0	0	0	0.11	0	0.11
1.82	1.85	0.03	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.18	0	0	0	0	0	0	0.18	0	0.18
1.85	1.97	0.12	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.29	0.29	0
1.97	2.05	0.08	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.31	0	0	0	0	0	0.31	0	0
2.05	2.08	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.23	0	0	0	0	0	0	0	0	0.23
2.08	2.14	0.05	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.4	0	0	0	0	0	1.4	1.4	0
2.14	2.18	0.04	WeD	Greene/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.18	2.26	0.08	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.61	0	0	0	0	0	0	0	0	0.61
2.26	2.28	0.02	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
2.28	2.38	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.76	0	0	0	0	0	0	0	0	0.76
2.38	2.46	0.08	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.35	0	0	0	0	0.35	0.35	0.35
2.46	2.56	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.76	0	0	0	0	0	0	0	0	0.76
2.56	2.58	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.03	0	0	0	0	0	0	0	0.03	0.03
2.58	2.61	0.04	BoB	Greene/PA	Brooke silty clay loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.61	2.73	0.11	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.32	0	0	0	0	0	0	0	0.32	0.32
2.73	2.79	0.06	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.46	0	0	0	0	0	0	0	0	0.46
2.79	2.83	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.30	0	0	0	0	0	0.30	0.30	0
2.83	2.97	0.14	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.21	0	0	0	0	0	0	0	0	1.21
H-318 Pipeline															
0.00	0.07	0.07	GuB	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0	0.48	0	0	0	0	0	0.48	0.48	0
0.07	0.12	0.05	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.18	0	0	0	0	0	0	0.7	0.7	0.7
0.12	0.22	0.10	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.73	0	0	0	0	0.73	0	0
0.22	0.23	0.00	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.23	0.29	0.06	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	0.48	0	0	0	0	0	0	0.48	0.48	0.48
0.29	0.36	0.07	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.25	0	0	0	0	0	0	0.25	0.25	0.25
0.36	0.61	0.25	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	1.82	0	0	0	0	1.82	0	0
0.61	0.70	0.09	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	0.72	0	0	0	0	0	0	0.72	0.72	0.72
0.70	0.75	0.05	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.37	0	0	0	0	0.37	0	0
0.75	0.80	0.05	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0.29	0	0	0	0	0.29	0	0.29	0	0.29
0.80	0.91	0.11	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.80	0	0	0	0	0.80	0	0
0.91	1.02	0.11	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.38	0	0	0	0	0	0	0.38	0.38	0.38

Attachment 7-1

Appendix 7-A

(Revised July 13, 2016)

Soil Map Units by Milepost (Operation/Permanent Impact Areas)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
1.02	1.09	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0.4	0	0	0	0	0.4	0	0.4	0	0.4
1.09	1.17	0.08	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.39	0	0	0	0	0.39	0.39	0.39
1.17	1.23	0.06	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.21	0	0	0	0	0	0	0.21	0.21	0.21
1.23	1.29	0.05	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.24	0	0	0	0	0.24	0.24	0.24
1.29	1.34	0.06	CwD	Allegheny/PA	Culleoka-Westmoreland silt loams, 15 to 25 percent slopes	0.18	0	0	0	0	0	0	0.18	0.18	0.18
1.34	1.38	0.04	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0.15	0	0	0	0	0	0.15	0.15	0
1.38	1.43	0.04	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.13	0	0	0	0	0	0	0.13	0.13	0.13
1.43	1.52	0.10	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0.36	0	0	0	0	0	0.36	0.36	0
1.52	1.56	0.04	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.20	0	0	0	0	0.20	0.20	0.20
1.56	1.61	0.05	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.12	0	0	0	0	0	0	0.12	0.12	0.12
1.61	1.68	0.07	DoE	Allegheny/PA	Dormont silt loam, 25 to 35 percent slopes	0.51	0	0	0	0	0	0	0.51	0.51	0.51
1.68	1.75	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0.4	0	0	0	0	0.4	0	0.4	0	0.4
1.75	1.81	0.06	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.31	0	0	0	0	0.31	0	0.31	0.31	0.31
1.81	1.90	0.08	CwC	Allegheny/PA	Culleoka-Westmoreland silt loams, 8 to 15 percent slopes	0	0	0.22	0	0	0	0	0.22	0	0.22
1.90	2.00	0.10	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.60	0	0	0	0	0	0	0.60	0.60
2.00	2.17	0.17	AgB	Allegheny/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.38	0.38	0
2.17	2.20	0.03	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.16	0	0	0	0	0.16	0	0.16	0.16	0.16
2.20	2.27	0.07	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.42	0	0	0	0	0	0	0.42	0.42
2.27	2.37	0.10	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.51	0	0	0	0	0.51	0	0.51	0.51	0.51
2.37	2.64	0.26	SmD	Allegheny/PA	Strip mines, 8 to 25 percent slopes	0	0	0	0	0	1.02	0	0	1.02	1.02
2.64	2.68	0.04	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.21	0	0	0	0	0.21	0	0.21	0.21	0.21
2.68	2.75	0.07	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0.29	0	0	0	0	0	0	0.29	0.29	0.29
2.75	2.80	0.05	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.3	0	0	0	0	0	0	0.3	0.3
2.80	2.81	0.01	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0.04	0	0	0	0	0	0	0.04	0.04	0.04
2.81	2.85	0.05	URB	Allegheny/PA	Urban land-Rainsboro complex, gently sloping	0	0	0	0	0	0	0	0.46	0	0
2.85	2.89	0.04	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.24	0	0	0	0	0	0	0.24	0.24
2.89	2.95	0.06	RaA	Allegheny/PA	Rainsboro silt loam, 0 to 3 percent slopes	0	0.09	0	0	0	0	0	0	0.09	0
2.95	3.12	0.17	W		Water	-	-	-	-	-	-	-	-	-	-
3.12	3.21	0.09	Us	Washington/PA	Udorthents, smoothed	0	0.17	0	0	0	0	0	0	0	0
3.21	3.25	0.04	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.14	0	0	0	0	0	0	0	0	0.14
3.25	3.36	0.11	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.47	0	0	0	0	0.47	0.47	0.47
3.36	3.49	0.13	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.47	0	0	0	0	0	0	0	0	0.47
3.49	3.62	0.13	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.63	0	0	0	0	0.63	0.63	0.63
3.62	3.65	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.11	0	0	0	0	0	0	0	0	0.11
3.65	3.71	0.06	WeB	Washington/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.27	1.08	1.08
3.71	3.73	0.02	WeC	Washington/PA	Westmoreland silt loam, 8 to 15 percent slopes	0	0	0.12	0	0	0	0	0.12	0.12	0.12
3.73	3.76	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.11	0	0	0	0	0	0	0	0	0.11
3.76	3.77	0.01	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.04	0	0	0	0	0.04	0.04	0.04
3.77	3.83	0.06	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.29	0	0	0	0	0.29	0.29	0.29
3.83	3.83	0.00	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.89	0.06	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.26	0	0	0	0	0.26	0.26	0.26
3.89	3.90	0.02	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0.11	0	0	0	0	0	0	0.11	0.11	0.11
3.90	3.95	0.05	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.24	0	0	0	0	0.24	0.24	0.24
3.95	4.01	0.06	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0.34	0	0	0	0	0	0	0.34	0.34	0.34
4.01	4.08	0.07	CaB	Washington/PA	Calvin silt loam, 3 to 8 percent slopes	0	0	0.23	0	0	0	0	0.23	0.23	0.23
4.08	4.20	0.12	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0.68	0	0	0	0	0	0	0.68	0.68	0.68
4.20	4.25	0.05	Fa	Washington/PA	Fairplay (marl) silt loam	0	0	0	0.14	0.14	0	0.14	0	0	0.14
4.25	4.27	0.02	WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0.20	0	0	0	0	0	0.20	0.20	0.20
H-319 Pipeline															
0.00	0.04	0.04	Sk	Wetzel/WV	Skidmore gravelly loam	0	0	0.84	0	0	0.84	0	0	0	0
Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.															
The values in each column do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.															
Soil limitations are reported in acres.															

Attachment 7-1

Appendix 7-A

(Revised July 13, 2016)

Soil Map Units by Milepost (Construction/Temporary Impact Areas)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
H-158/M-80 Pipelines															
0.00	0.03	0.03	CaD	Greene/PA	Calvin silt loam, 15 to 25 percent slopes	1.32	0	0	0	0	0	0	1.32	1.32	1.32
0.03	0.06	0.03	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.91	0	0	0	0	0	0	0	0	0.91
0.06	0.09	0.03	Nw	Greene/PA	Newark silt loam	0	0	2.11	0	0	0	0	0	2.11	2.11
0.09	0.13	0.04	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.20	0	0	0	0	0	0	0	0	1.20
0.13	0.18	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	1.34	0	0	0	0	0	0	1.34	0	1.34
0.18	0.24	0.06	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	1.44	0	0	0	0	0	1.44	0	0
H-305 Pipeline															
0.00	0.00	0.00	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.02	0	0	0	0	0	0.02	0.02	0
0.00	0.09	0.09	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.00	0	0	0	0	1.00	1.00	1.00
0.09	0.10	0.01	DtD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	1.01	0	0	0	0	0	0	0	1.01	1.01
H-316 Pipeline															
0.00	0.00	0.00	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.74	0	0	0	0	0.74	0.74	0.74
0.00	0.05	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.82	0	0	0	0	0	0.82	0.82	0
0.05	0.06	0.01	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.12	0	0	0	0	0	0.12	0	0
0.06	0.11	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.59	0	0	0	0	0	0	0.59	0	0.59
0.11	0.15	0.04	Du	Greene/PA	Dunning silt loam	0	0	0	0.46	0.46	0	0.46	0	0.46	0.46
0.15	0.20	0.05	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.02	0	0	0	0	0	0	0	0	1.02
0.20	0.24	0.04	DtD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.31	0	0	0	0	0	0	0	0.31	0.31
0.24	0.27	0.03	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.36	0	0	0	0	0	0	0.36	0	0.36
0.27	0.48	0.22	DtD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	1.74	0	0	0	0	0	0	0	1.74	1.74
0.48	0.51	0.03	WeB	Greene/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0.35	0	0	0	0	0	0.35	0.35	0.35
0.51	0.64	0.12	DtD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.95	0	0	0	0	0	0	0	0.95	0.95
0.64	0.91	0.27	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	3.17	0	0	0	0	3.17	3.17	3.17
0.91	0.97	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.72	0	0	0	0	0	0	0.72	0	0.72
0.97	1.02	0.04	UdB	Greene/PA	Udorthents, smoothed, gently sloping	0	0	0	0	0	0	0	0	0.66	0.66
1.02	1.10	0.09	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	1.07	0	0	0	0	0	0	1.07	0	1.07
1.10	1.20	0.10	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	1.06	0	0	0	0	0	1.06	0	0
1.20	1.23	0.03	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.45	0	0	0	0	0.45	0	0.45
1.23	1.27	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.47	0	0	0	0	0	0	0.47	0	0.47
1.27	1.33	0.07	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.44	0	0	0	0	0	0	0	0	1.44
1.33	1.34	0.01	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
1.34	1.35	0.01	Nw	Greene/PA	Newark silt loam	0	0	0.05	0	0	0	0	0	0.05	0.05
1.35	1.39	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.82	0	0	0	0	0	0.82	0.82	0
1.39	1.45	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.72	0	0	0	0	0	0	0.72	0	0.72
1.45	1.49	0.04	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.61	0	0	0	0	0.61	0	0.61
1.49	1.56	0.07	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	1.16	0	0	0	0	0	0	1.16	0	1.16
1.56	1.61	0.05	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.33	0.33	0
1.61	1.64	0.02	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0.26	0	0	0	0	0.26	0.26	0.26
1.64	1.67	0.04	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.66	0	0	0	0	0	0	0.66	0	0.66
1.67	1.71	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.47	0	0	0	0	0	0	0.47	0	0.65
1.71	1.74	0.03	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0.39	0	0	0	0	0.39	0.39	0.39
1.74	1.80	0.05	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.02	0	0	0	0	0	0	0	0	1.02
1.80	1.82	0.02	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.30	0	0	0	0	0.30	0	0.30
1.82	1.85	0.03	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.50	0	0	0	0	0	0	0.50	0	0.50
1.85	1.97	0.12	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.78	0.78	0
1.97	2.05	0.08	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0.85	0	0	0	0	0	0.85	0	0
2.05	2.08	0.03	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.61	0	0	0	0	0	0	0	0	0.61
2.08	2.14	0.05	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	1.02	0	0	0	0	0	1.02	1.02	0
2.14	2.18	0.04	WeD	Greene/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.18	2.26	0.08	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.64	0	0	0	0	0	0	0	0	1.64
2.26	2.28	0.02	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
2.28	2.38	0.10	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	2.05	0	0	0	0	0	0	0	0	2.05
2.38	2.46	0.08	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.94	0	0	0	0	0.94	0.94	0.94
2.46	2.56	0.10	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	2.05	0	0	0	0	0	0	0	0	2.05
2.56	2.58	0.01	DtD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.08	0	0	0	0	0	0	0	0.08	0.08
2.58	2.61	0.04	BoB	Greene/PA	Brooke silty clay loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.61	2.73	0.11	DtD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.87	0	0	0	0	0	0	0	0.87	0.87
2.73	2.79	0.06	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.23	0	0	0	0	0	0	0	0	1.23
2.79	2.83	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.82	0	0	0	0	0	0.82	0.82	0
2.83	2.97	0.14	DtF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	3.28	0	0	0	0	0	0	0	0	3.28
H-318 Pipeline															
0.00	0.07	0.07	GuB	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0	1.44	0	0	0	0	0	1.44	1.44	0
0.07	0.12	0.05	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.53	0	0	0	0	0	0	0.53	0.53	0.53
0.12	0.22	0.10	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	2.18	0	0	0	0	2.18	0	0
0.22	0.23	0.00	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.4	0	0	0	0	0	0	0.4	0.4	0.4
0.23	0.29	0.06	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	1.44	0	0	0	0	0	0	1.44	1.44	1.44
0.29	0.36	0.07	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.74	0	0	0	0	0	0	0.74	0.74	0.74
0.36	0.61	0.25	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	5.46	0	0	0	0	5.46	0	0
0.61	0.70	0.09	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	2.15	0	0	0	0	0	0	2.15	2.15	2.15
0.70	0.75	0.05	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	1.10	0	0	0	0	1.10	0	0

Attachment 7-1

Appendix 7-A

(Revised July 13, 2016)

Soil Map Units by Milepost (Construction/Temporary Impact Areas)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/ Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
0.75	0.80	0.05	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0.86	0	0	0	0	0.86	0	0.86	0	0.86
0.80	0.91	0.11	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	2.41	0	0	0	0	2.41	0	0
0.91	1.02	0.11	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	1.15	0	0	0	0	0	0	1.15	1.15	1.15
1.02	1.09	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	1.2	0	0	0	0	1.2	0	1.2	0	1.2
1.09	1.17	0.08	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.17	0	0	0	0	1.17	1.17	1.17
1.17	1.23	0.06	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.63	0	0	0	0	0	0	0.63	0.63	0.63
1.23	1.29	0.05	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.73	0	0	0	0	0.73	0.73	0.73
1.29	1.34	0.06	CwD	Allegheny/PA	Culleoka-Westmoreland silt loams, 15 to 25 percent slopes	0.54	0	0	0	0	0	0	0.54	0.54	0.54
1.34	1.38	0.04	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0.44	0	0	0	0	0	0.44	0.44	0
1.38	1.43	0.04	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.39	0	0	0	0	0	0	0.39	0.39	0.39
1.43	1.52	0.10	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	1.09	0	0	0	0	0	1.09	1.09	0
1.52	1.56	0.04	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.59	0	0	0	0	0.59	0.59	0.59
1.56	1.61	0.05	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.36	0	0	0	0	0	0	0.36	0.36	0.36
1.61	1.68	0.07	DoE	Allegheny/PA	Dormont silt loam, 25 to 35 percent slopes	1.53	0	0	0	0	0	0	1.53	1.53	1.53
1.68	1.75	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	1.2	0	0	0	0	1.2	0	1.2	0	1.2
1.75	1.81	0.06	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.92	0	0	0	0	0.92	0	0.92	0.92	0.92
1.81	1.90	0.08	CwC	Allegheny/PA	Culleoka-Westmoreland silt loams, 8 to 15 percent slopes	0	0	0.66	0	0	0	0	0.66	0	0.66
1.90	2.00	0.10	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	1.79	0	0	0	0	0	1.79	1.79	1.79
2.00	2.17	0.17	AgB	Allegheny/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.86	0.86	0
2.17	2.20	0.03	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.47	0	0	0	0	0.47	0	0.47	0.47	0.47
2.20	2.27	0.07	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	1.25	0	0	0	0	0	1.25	1.25	1.25
2.27	2.37	0.10	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	1.54	0	0	0	0	1.54	0	1.54	1.54	1.54
2.37	2.64	0.26	SmD	Allegheny/PA	Strip mines, 8 to 25 percent slopes	0	0	0	0	0	3.05	0	3.05	3.05	3.05
2.64	2.68	0.04	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.62	0	0	0	0	0.62	0	0.62	0.62	0.62
2.68	2.75	0.07	GOF	Allegheny/PA	Gilpin-Upshur complex, very steep	0.86	0	0	0	0	0	0	0.86	0.86	0.86
2.75	2.80	0.05	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.9	0	0	0	0	0	0.9	0.9	0.9
2.80	2.81	0.01	GOF	Allegheny/PA	Gilpin-Upshur complex, very steep	0.12	0	0	0	0	0	0	0.12	0.12	0.12
2.81	2.85	0.05	URB	Allegheny/PA	Urban land-Rainsboro complex, gently sloping	0	0	0	0	0	0	0	1.37	0	0
2.85	2.89	0.04	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.72	0	0	0	0	0	0.72	0.72	0.72
2.89	2.95	0.06	RaA	Allegheny/PA	Rainsboro silt loam, 0 to 3 percent slopes	0	0.28	0	0	0	0	0	0.28	0	0
2.95	3.12	0.17	W		Water	-	-	-	-	-	-	-	-	-	-
3.12	3.21	0.09	Us	Washington/PA	Udorthents, smoothed	0	0.52	0	0	0	0	0	0	0	0
3.21	3.25	0.04	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.43	0	0	0	0	0	0	0	0	0.43
3.25	3.36	0.11	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	1.40	0	0	0	0	1.40	1.40	1.40
3.36	3.49	0.13	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.40	0	0	0	0	0	0	0	0	1.40
3.49	3.62	0.13	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	1.90	0	0	0	0	1.90	1.90	1.90
3.62	3.65	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.32	0	0	0	0	0	0	0	0	0.32
3.65	3.71	0.06	WeB	Washington/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0.81	0	0	0	0	0	0.81	0.81	0.81
3.71	3.73	0.02	WeC	Washington/PA	Westmoreland silt loam, 8 to 15 percent slopes	0	0	0.36	0	0	0	0	0.36	0.36	0.36
3.73	3.76	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.32	0	0	0	0	0	0	0	0	0.32
3.76	3.77	0.01	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.13	0	0	0	0	0.13	0.13	0.13
3.77	3.83	0.06	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.88	0	0	0	0	0.88	0.88	0.88
3.83	3.83	0.00	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.89	0.06	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.77	0	0	0	0	0.77	0.77	0.77
3.89	3.90	0.02	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0.34	0	0	0	0	0	0	0.34	0.34	0.34
3.90	3.95	0.05	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.73	0	0	0	0	0.73	0.73	0.73
3.95	4.01	0.06	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	1.02	0	0	0	0	0	0	1.02	1.02	1.02
4.01	4.08	0.07	CaB	Washington/PA	Calvin silt loam, 3 to 8 percent slopes	0	0	0.69	0	0	0	0	0.69	0.69	0.69
4.08	4.20	0.12	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	2.05	0	0	0	0	0	0	2.05	2.05	2.05
4.20	4.25	0.05	Fa	Washington/PA	Fairplay (marl) silt loam	0	0	0	0.41	0.41	0	0.41	0	0	0.41
4.25	4.27	0.02	WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0.61	0	0	0	0	0	0.61	0.61	0.61
H-319 Pipeline															
0.00	0.04	0.04	Sk	Wetzel/WV	Skidmore gravelly loam	0	0	0	0	0	0	0	0	0	0

Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.
The values in each column do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies.
Soil limitations are reported in acres.

Attachment 7-1

Appendix 7-A

(Revised July 13, 2016)

Soil Map Units by Milepost (Additional Temporary Work Space)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
H-158/M-80 Pilelines															
0.00	0.03	0.03	CaD	Greene/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.03	0.06	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.05	0	0	0	0	0	0	0	0	0.05
0.06	0.09	0.03	Nw	Greene/PA	Newark silt loam	0	0	0.48	0	0	0	0	0	0.48	0.48
0.09	0.13	0.04	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
0.13	0.18	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.18	0.24	0.06	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
H-305 Pipeline															
0.00	0.00	0.00	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.00	0.09	0.09	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.19	0	0	0	0	0.19	0.19	0.19
0.09	0.10	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.82	0	0	0	0	0	0	0	0.82	0.82
H-316 Pipeline															
0.00	0.00	0.00	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.74	0	0	0	0	0.74	0.74	0.74
0.00	0.05	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.05	0.06	0.01	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.06	0.11	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.47	0	0	0	0	0	0	0.47	0	0
0.11	0.15	0.04	Du	Greene/PA	Dunning silt loam	0	0	0	0	0	0	0	0	0	0
0.15	0.20	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
0.20	0.24	0.04	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.24	0.27	0.03	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.27	0.48	0.22	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.48	0.51	0.03	WeB	Greene/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.51	0.64	0.12	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.64	0.91	0.27	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.91	0.97	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.97	1.02	0.04	UDB	Greene/PA	Udorthents, smoothed, gently sloping	0	0	0	0	0	0	0	0	0	0
1.02	1.10	0.09	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.10	1.20	0.10	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.20	1.23	0.03	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.23	1.27	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.27	1.33	0.07	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
1.33	1.34	0.01	W	Greene/PA	Water	0	0	0	0	0	0	0	0	0	0
1.34	1.35	0.01	Nw	Greene/PA	Newark silt loam	0	0	0	0	0	0	0	0	0	0
1.35	1.39	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.39	1.45	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.45	1.49	0.04	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.29	0	0	0	0	0.29	0	0.29
1.49	1.56	0.07	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.68	0	0	0	0	0	0	0.68	0	0.68
1.56	1.61	0.05	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.61	1.64	0.02	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.64	1.67	0.04	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.67	1.71	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.71	1.74	0.03	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.74	1.80	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
1.80	1.82	0.02	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.82	1.85	0.03	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.85	1.97	0.12	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.97	2.05	0.08	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.05	2.08	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.03	0	0	0	0	0	0	0	0	0.03
2.08	2.14	0.05	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	1.88	0	0	0	0	0	1.88	1.88	0
2.14	2.18	0.04	WeD	Greene/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.18	2.26	0.08	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.26	2.28	0.02	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
2.28	2.38	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.38	2.46	0.08	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
2.46	2.56	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.56	2.58	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.58	2.61	0.04	BoB	Greene/PA	Brooke silty clay loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.61	2.73	0.11	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.73	2.79	0.06	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.79	2.83	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.33	0	0	0	0	0	0.33	0.33	0
2.83	2.97	0.14	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	12.99	0	0	0	0	0	0	0	0	12.99
H-318 Pipeline															
0.00	0.07	0.07	GuB	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0	0.01	0	0	0	0	0	0.01	0.01	0
0.07	0.12	0.05	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.4	0	0	0	0	0	0	0.4	0.4	0
0.12	0.22	0.10	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	6.94	0	0	0	0	6.94	0	0
0.22	0.23	0.00	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.23	0.29	0.06	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	1.91	0	0	0	0	0	0	0	0	0
0.29	0.36	0.07	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	1.91	1.91	0
0.36	0.61	0.25	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	1.22	0	0	0	0	1.22	0	0
0.61	0.70	0.09	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	1.00	0	0	0	0	0	0	1.00	1.00	0
0.70	0.75	0.05	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.43	0	0	0	0	0.43	0	0
0.75	0.80	0.05	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
0.80	0.91	0.11	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.13	0	0	0	0	0.13	0	0
0.91	1.02	0.11	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)
Soil Map Units by Milepost (Additional Temporary Work Space)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
1.02	1.09	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
1.09	1.17	0.08	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.17	1.23	0.06	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.23	1.29	0.05	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.29	1.34	0.06	CwD	Allegheny/PA	Culleoka-Westmoreland silt loams, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.34	1.38	0.04	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.38	1.43	0.04	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.43	1.52	0.10	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.52	1.56	0.04	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.56	1.61	0.05	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0.02	0	0	0	0	0	0	0.02	0.02	0.02
1.61	1.68	0.07	DoE	Allegheny/PA	Dormont silt loam, 25 to 35 percent slopes	0	0	0	0	0	0	0	0	0	0
1.68	1.75	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0.84	0	0	0	0	0.84	0	0.84	0	0.84
1.75	1.81	0.06	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.48	0	0	0	0	0.48	0	0.48	0	0.48
1.81	1.90	0.08	CwC	Allegheny/PA	Culleoka-Westmoreland silt loams, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.90	2.00	0.10	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	2.14	0	0	0	0	0	0	2.14	2.14
2.00	2.17	0.17	AgB	Allegheny/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.17	2.20	0.03	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.67	0	0	0	0	0.67	0	0.67	0	0.67
2.20	2.27	0.07	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.38	0	0	0	0	0	0	0.38	0.38
2.27	2.37	0.10	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0.76	0	0	0	0	0.76	0	0.76	0	0.76
2.37	2.64	0.26	SmD	Allegheny/PA	Strip mines, 8 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.64	2.68	0.04	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.68	2.75	0.07	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0	0	0	0	0	0	0	0	0	0
2.75	2.80	0.05	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.32	0	0	0	0	0	0	0.32	0.32
2.80	2.81	0.01	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0.03	0	0	0	0	0	0	0.03	0.03	0.03
2.81	2.85	0.05	URB	Allegheny/PA	Urban land-Rainsboro complex, gently sloping	0	0	0	0	0	0	0	0.12	0	0
2.85	2.89	0.04	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.24	0	0	0	0	0	0	0.24	0.24
2.89	2.95	0.06	RaA	Allegheny/PA	Rainsboro silt loam, 0 to 3 percent slopes	0	0	0	0	0	0	0	0	0	0
2.95	3.12	0.17	W		Water	-	-	-	-	-	-	-	-	-	-
3.12	3.21	0.09	Us	Washington/PA	Udorthents, smoothed	0	0	0	0	0	0	0	0	0	0
3.21	3.25	0.04	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.25	3.36	0.11	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.36	3.49	0.13	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.32	0	0	0	0	0	0	0	0	0.32
3.49	3.62	0.13	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.99	0	0	0	0	0.99	0.99	0.99
3.62	3.65	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.7	0	0	0	0	0	0	0	0	0.7
3.65	3.71	0.06	WeB	Washington/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0.18	0	0	0	0	0	0.18	0.18	0.18
3.71	3.73	0.02	WeC	Washington/PA	Westmoreland silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.73	3.76	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.08	0	0	0	0	0	0	0	0	0.08
3.76	3.77	0.01	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0.48	0	0	0	0	0.48	0.48	0.48
3.77	3.83	0.06	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.83	0.00	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.19	0	0	0	0	0	0	0	0	0.19
3.83	3.89	0.06	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	1.08	0	0	0	0	1.08	1.08	1.08
3.89	3.90	0.02	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
3.90	3.95	0.05	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.79	0	0	0	0	0.79	0.79	0.79
3.95	4.01	0.06	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
4.01	4.08	0.07	CaB	Washington/PA	Calvin silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
4.08	4.20	0.12	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
4.20	4.25	0.05	Fa	Washington/PA	Fairplay (marl) silt loam	0	0	0	0.01	0.01	0	0.01	0	0	0.01
4.25	4.27	0.02	WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0.33	0	0	0	0	0	0.33	0.33	0.33
H-319 Pipeline															
0.00	0.04	0.04	Sk	Wetzel/WV	Skidmore gravelly loam	0	0	0.09	0	0	0.09	0	0	0	0
Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS. The values in each column do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies. Soil limitations are reported in acres.															

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)
Soil Map Units by Milepost (Access Roads)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
H-158/M-80 Pipelines															
0.00	0.03	0.03	CaD	Greene/PA	Calvin silt loam, 15 to 25 percent slopes	0.22	0	0	0	0	0	0	0.22	0.22	0.22
0.03	0.06	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.01	0	0	0	0	0	0	0	0	0.01
0.06	0.09	0.03	Nw	Greene/PA	Newark silt loam	0	0	0.13	0	0	0	0	0.13	0.13	0.13
0.09	0.13	0.04	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
0.13	0.18	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.18	0.24	0.06	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
H-305 Pipeline															
0.00	0.00	0.00	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.00	0.09	0.09	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.09	0.10	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.34	0	0	0	0	0	0	0.34	0.34	0.34
H-316 Pipeline															
0.00	0.00	0.00	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.12	0	0	0	0	0.12	0.12	0.12
0.00	0.05	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.16	0	0	0	0	0	0.16	0.16	0
0.05	0.06	0.01	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.06	0.11	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.11	0.15	0.04	Du	Greene/PA	Dunning silt loam	0	0	0	0	0	0	0	0	0	0
0.15	0.20	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.02	0	0	0	0	0	0	0	0	0.02
0.20	0.24	0.04	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.24	0.27	0.03	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.27	0.48	0.22	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.48	0.51	0.03	WeB	Greene/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.51	0.64	0.12	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.64	0.91	0.27	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.25	0	0	0	0	0.25	0.25	0.25
0.91	0.97	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0.26	0	0	0	0	0	0	0.26	0	0.26
0.97	1.02	0.04	UDB	Greene/PA	Udorthents, smoothed, gently sloping	0	0	0	0	0	0	0	0	0	0
1.02	1.10	0.09	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.10	1.20	0.10	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.20	1.23	0.03	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.23	1.27	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.27	1.33	0.07	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
1.33	1.34	0.01	W	Greene/PA	Water	0	0	0	0	0	0	0	0	0	0
1.34	1.35	0.01	Nw	Greene/PA	Newark silt loam	0	0	0	0	0	0	0	0	0	0
1.35	1.39	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.39	1.45	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.45	1.49	0.04	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.18	0	0	0	0	0.18	0	0.18
1.49	1.56	0.07	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.56	1.61	0.05	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0.37	0.37	0
1.61	1.64	0.02	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.64	1.67	0.04	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0.21	0	0	0	0	0	0	0.21	0	0.21
1.67	1.71	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.71	1.74	0.03	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.74	1.80	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
1.80	1.82	0.02	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0.08	0	0	0	0	0.08	0	0.08
1.82	1.85	0.03	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.85	1.97	0.12	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.97	2.05	0.08	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.05	2.08	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.08	2.14	0.05	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.21	0	0	0	0	0	0.21	0.21	0
2.14	2.18	0.04	WeD	Greene/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.18	2.26	0.08	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.26	2.28	0.02	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
2.28	2.38	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.38	2.46	0.08	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
2.46	2.56	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.56	2.58	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.58	2.61	0.04	BoB	Greene/PA	Brooke silty clay loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.61	2.73	0.11	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.02	0	0	0	0	0	0	0	0.02	0.02
2.73	2.79	0.06	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.73	0	0	0	0	0	0	0	0	0.73
2.79	2.83	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0.31	0	0	0	0	0	0.31	0.31	0.31
2.83	2.97	0.14	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.24	0	0	0	0	0	0	0	0	0.24
H-318 Pipeline															
0.00	0.07	0.07	GuB	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0	0.09	0	0	0	0	0	0.09	0.09	0
0.07	0.12	0.05	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.12	0	0	0	0	0	0	0.12	0.12	0.12
0.12	0.22	0.10	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.04	0	0	0	0	0.04	0	0
0.22	0.23	0.00	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.23	0.29	0.06	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.29	0.36	0.07	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.36	0.61	0.25	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.61	0.70	0.09	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	0.02	0	0	0	0	0	0	0.02	0.02	0.02
0.70	0.75	0.05	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.05	0	0	0	0	0.05	0	0
0.75	0.80	0.05	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0.14	0	0	0	0	0.14	0	0	0	0
0.80	0.91	0.11	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0.11	0	0	0	0	0.11	0	0
0.91	1.02	0.11	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)
Soil Map Units by Milepost (Access Roads)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
1.02	1.09	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
1.09	1.17	0.08	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.17	1.23	0.06	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0.23	0	0	0	0	0	0	0.23	0.23	0.23
1.23	1.29	0.05	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.29	1.34	0.06	CwD	Allegheny/PA	Culleoka-Westmoreland silt loams, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.34	1.38	0.04	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.38	1.43	0.04	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.43	1.52	0.10	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.52	1.56	0.04	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.56	1.61	0.05	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.61	1.68	0.07	DoE	Allegheny/PA	Dormont silt loam, 25 to 35 percent slopes	0	0	0	0	0	0	0	0	0	0
1.68	1.75	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
1.75	1.81	0.06	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
1.81	1.90	0.08	CwC	Allegheny/PA	Culleoka-Westmoreland silt loams, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.90	2.00	0.10	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0.46	0	0	0	0	0	0	0.46	0.46
2.00	2.17	0.17	AgB	Allegheny/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.17	2.20	0.03	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.20	2.27	0.07	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.27	2.37	0.10	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.37	2.64	0.26	SmD	Allegheny/PA	Strip mines, 8 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.64	2.68	0.04	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.68	2.75	0.07	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0	0	0	0	0	0	0	0	0	0
2.75	2.80	0.05	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.80	2.81	0.01	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0	0	0	0	0	0	0	0	0	0
2.81	2.85	0.05	URB	Allegheny/PA	Urban land-Rainsboro complex, gently sloping	0	0	0	0	0	0	0	0	0	0
2.85	2.89	0.04	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.89	2.95	0.06	RaA	Allegheny/PA	Rainsboro silt loam, 0 to 3 percent slopes	0	0	0	0	0	0	0	0	0	0
2.95	3.12	0.17	W		Water	-	-	-	-	-	-	-	-	-	-
3.12	3.21	0.09	Us	Washington/PA	Udorthents, smoothed	0	0	0	0	0	0	0	0	0	0
3.21	3.25	0.04	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.25	3.36	0.11	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.36	3.49	0.13	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.09	0	0	0	0	0	0	0	0	0.09
3.49	3.62	0.13	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.04	0	0	0	0	0.04	0.04	0.04
3.62	3.65	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.07	0	0	0	0	0	0	0	0	0.07
3.65	3.71	0.06	WeB	Washington/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0.22	0	0	0	0	0	0.22	0.22	0.22
3.71	3.73	0.02	WeC	Washington/PA	Westmoreland silt loam, 8 to 15 percent slopes	0	0	0.19	0	0	0	0	0.19	0.19	0.19
3.73	3.76	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.76	3.77	0.01	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.77	3.83	0.06	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.83	0.00	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.89	0.06	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.89	3.90	0.02	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
3.90	3.95	0.05	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.01	0	0	0	0	0.01	0.01	0.01
3.95	4.01	0.06	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
4.01	4.08	0.07	CaB	Washington/PA	Calvin silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
4.08	4.20	0.12	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
4.20	4.25	0.05	Fa	Washington/PA	Fairplay (marl) silt loam	0	0	0	0	0	0	0	0	0	0
4.25	4.27	0.02	WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0.09	0	0	0	0	0	0	0.09	0.09	0.09

H-319 Pipeline

0.00	0.04	0.04	Sk	Wetzel/WV	Skidmore gravelly loam	0	0	0.02	0	0	0.02	0	0	0	0
Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS. The values in each column do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies. Soil limitations are reported in acres.															

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)

Soil Map Units by Milepost (Contractor Yards and Staging Areas)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
H-158/M-80 Pilelines															
0.00	0.03	0.03	CaD	Greene/PA	Calvin silt loam, 15 to 25 percent slopes	1.45	0	0	0	0	0	0	1.45	1.45	1.45
0.03	0.06	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.43	0	0	0	0	0	0	0	0	0.43
0.06	0.09	0.03	Nw	Greene/PA	Newark silt loam	0	0	0.71	0	0	0	0	0	0.71	0.71
0.09	0.13	0.04	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
0.13	0.18	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.18	0.24	0.06	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
H-305 Pipeline															
0.00	0.00	0.00	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.00	0.09	0.09	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.09	0.10	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
H-316 Pipeline															
0.00	0.00	0.00	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.00	0.05	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.05	0.06	0.01	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.06	0.11	0.05	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.11	0.15	0.04	Du	Greene/PA	Dunning silt loam	0	0	0	0	0	0	0	0	0	0
0.15	0.20	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
0.20	0.24	0.04	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.24	0.27	0.03	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.27	0.48	0.22	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.48	0.51	0.03	WeB	Greene/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.51	0.64	0.12	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.64	0.91	0.27	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.91	0.97	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.97	1.02	0.04	UDB	Greene/PA	Udorthents, smoothed, gently sloping	0	0	0	0	0	0	0	0	0	0
1.02	1.10	0.09	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.10	1.20	0.10	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.20	1.23	0.03	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.23	1.27	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.27	1.33	0.07	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
1.33	1.34	0.01	W	Greene/PA	Water	0	0	0	0	0	0	0	0	0	0
1.34	1.35	0.01	Nw	Greene/PA	Newark silt loam	0	0	0	0	0	0	0	0	0	0
1.35	1.39	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.39	1.45	0.06	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.45	1.49	0.04	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.49	1.56	0.07	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.56	1.61	0.05	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.61	1.64	0.02	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.64	1.67	0.04	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.67	1.71	0.04	DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.71	1.74	0.03	AgC	Greene/PA	Allegheny silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.74	1.80	0.05	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
1.80	1.82	0.02	DaC	Greene/PA	Dekalb channery loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.82	1.85	0.03	DaF	Greene/PA	Dekalb channery loam, 35 to 65 percent slopes	0	0	0	0	0	0	0	0	0	0
1.85	1.97	0.12	AgB	Greene/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.97	2.05	0.08	DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.05	2.08	0.03	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.08	2.14	0.05	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.14	2.18	0.04	WeD	Greene/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.18	2.26	0.08	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.26	2.28	0.02	W	Greene/PA	Water	-	-	-	-	-	-	-	-	-	-
2.28	2.38	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.38	2.46	0.08	DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
2.46	2.56	0.10	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.56	2.58	0.01	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.58	2.61	0.04	BoB	Greene/PA	Brooke silty clay loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.61	2.73	0.11	DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.73	2.79	0.06	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
2.79	2.83	0.04	GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.83	2.97	0.14	DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
H-318 Pipeline															
0.00	0.07	0.07	GuB	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
0.07	0.12	0.05	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.12	0.22	0.10	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.22	0.23	0.00	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.23	0.29	0.06	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.29	0.36	0.07	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.36	0.61	0.25	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.61	0.70	0.09	GuD	Allegheny/PA	Guernsey silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
0.70	0.75	0.05	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.75	0.80	0.05	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
0.80	0.91	0.11	GuC	Allegheny/PA	Guernsey silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
0.91	1.02	0.11	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0

Attachment 7-1
Appendix 7-A
(Revised July 13, 2016)

Soil Map Units by Milepost (Contractor Yards and Staging Areas)

Milepost Start	Milepost End	Distance Crossed (miles)	Map Unit Symbol	County	Map Unit Name	Slopes ≥ 15%	Prime Farmland	Farmland of Statewide Importance	Hydric Soils	Shallow Depth to Groundwater	Stony/Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
1.02	1.09	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
1.09	1.17	0.08	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.17	1.23	0.06	CuD	Allegheny/PA	Culleoka-Dormont-Urban land complex, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.23	1.29	0.05	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.29	1.34	0.06	CwD	Allegheny/PA	Culleoka-Westmoreland silt loams, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.34	1.38	0.04	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.38	1.43	0.04	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.43	1.52	0.10	DoB	Allegheny/PA	Dormont silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
1.52	1.56	0.04	DoC	Allegheny/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.56	1.61	0.05	DoD	Allegheny/PA	Dormont silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
1.61	1.68	0.07	DoE	Allegheny/PA	Dormont silt loam, 25 to 35 percent slopes	0	0	0	0	0	0	0	0	0	0
1.68	1.75	0.07	GSF	Allegheny/PA	Gilpin, Weikert, and Culleoka shaly silt loams, very steep	0	0	0	0	0	0	0	0	0	0
1.75	1.81	0.06	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
1.81	1.90	0.08	CwC	Allegheny/PA	Culleoka-Westmoreland silt loams, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
1.90	2.00	0.10	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.00	2.17	0.17	AgB	Allegheny/PA	Allegheny silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.17	2.20	0.03	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.20	2.27	0.07	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.27	2.37	0.10	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.37	2.64	0.26	SmD	Allegheny/PA	Strip mines, 8 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
2.64	2.68	0.04	SmF	Allegheny/PA	Strip mines, 25 to 75 percent slopes	0	0	0	0	0	0	0	0	0	0
2.68	2.75	0.07	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0	0	0	0	0	0	0	0	0	0
2.75	2.80	0.05	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.80	2.81	0.01	GQF	Allegheny/PA	Gilpin-Upshur complex, very steep	0	0	0	0	0	0	0	0	0	0
2.81	2.85	0.05	URB	Allegheny/PA	Urban land-Rainsboro complex, gently sloping	0	0	0	0	0	0	0	0	0	0
2.85	2.89	0.04	RaB	Allegheny/PA	Rayne silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
2.89	2.95	0.06	RaA	Allegheny/PA	Rainsboro silt loam, 0 to 3 percent slopes	0	0	0	0	0	0	0	0	0	0
2.95	3.12	0.17	W		Water	-	-	-	-	-	-	-	-	-	-
3.12	3.21	0.09	Us	Washington/PA	Udorthents, smoothed	0	0.12	0	0	0	0	0	0	0	0
3.21	3.25	0.04	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.25	3.36	0.11	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.36	3.49	0.13	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.49	3.62	0.13	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.62	3.65	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.65	3.71	0.06	WeB	Washington/PA	Westmoreland silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
3.71	3.73	0.02	WeC	Washington/PA	Westmoreland silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.73	3.76	0.03	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.76	3.77	0.01	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.77	3.83	0.06	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.83	0.00	DtF	Washington/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0	0	0	0	0	0	0	0	0	0
3.83	3.89	0.06	CaC	Washington/PA	Calvin silt loam, 8 to 15 percent slopes	0	0	0	0	0	0	0	0	0	0
3.89	3.90	0.02	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
3.90	3.95	0.05	DoC	Washington/PA	Dormont silt loam, 8 to 15 percent slopes	0	0	0.12	0	0	0	0	0.12	0.12	0.12
3.95	4.01	0.06	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
4.01	4.08	0.07	CaB	Washington/PA	Calvin silt loam, 3 to 8 percent slopes	0	0	0	0	0	0	0	0	0	0
4.08	4.20	0.12	CaD	Washington/PA	Calvin silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
4.20	4.25	0.05	Fa	Washington/PA	Fairplay (marl) silt loam	0	0	0	0	0	0	0	0	0	0
4.25	4.27	0.02	WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0	0	0	0	0	0	0	0	0	0
H-319 Pipeline															
0.00	0.04	0.04	Sk	Wetzel/WV	Skidmore gravelly loam	0	0	0.25	0	0	0.25	0	0	0	0
Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS. The values in each column do not necessarily add up to the total acreage for each facility, because of minor rounding or mapping inconsistencies. Soil limitations are reported in acres.															

Attachment 7-1 Appendix 7-B (Revised July 13, 2016) Soil Map Units at Aboveground Facilities															
Soil Map Unit Symbol	County	Soil Map Unit Name	Temporary Impact		Permanent Impact		Designated Farmland	Slopes ≥ 15%	Hydric Soils	Shallow Depth to Groundwater	Stony/ Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
			Acres	Percent of Site	Acres	Percent of Site									
Pratt Compressor Station															
DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	1.61	21	1.61	21	Not Prime Farmland	1.61	0	0	0	0	1.61	0	1.61
Hu	Greene/PA	Huntington silt loam	5.96	78	5.96	78	Prime Farmland	0	0	0	0	0	0	5.96	0
Nw	Greene/PA	Newark silt loam	0.1	1	0.1	1	Farmland of Statewide Importance	0	0	0	0	0	0	0.1	0.1
W	Greene/PA	Water	0.01	<0.01	0.01	<0.01	-	-	-	-	-	-	-	-	-
Pratt CS Total (acres)			7.68		7.68										
Redhook Compressor Station															
DaB	Greene/PA	Dekalb channery loam, 3 to 8 percent slopes	3.08	17	3.08	17	Farmland of Statewide Importance	0	0	0	0	0	3.08	0	0
DaD	Greene/PA	Dekalb channery loam, 15 to 25 percent slopes	1.68	9	1.68	9	Not Prime Farmland	1.68	0	0	0	0	1.68	0	1.68
DoC	Greene/PA	Dormont silt loam, 8 to 15 percent slopes	6.0	34	6.0	34	Farmland of Statewide Importance	0	0	0	0	0	6	6	6
DiD	Greene/PA	Dunmore channery silt loam, 15 to 25 percent slopes	0.14	1	0.14	1	Not Prime Farmland	0.14	0	0	0	0	0	0.14	0.14
DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	1.35	8	1.35	8	Not Prime Farmland	1.35	0	0	0	0	0	0	1.35
GdB	Greene/PA	Glenford silt loam, 3 to 8 percent slopes	5.5	31	5.5	31	Prime Farmland	0	0	0	0	0	5.5	5.5	0
Redhook CS Total (acres)			17.75		17.75										
Webster Interconnect															
GpF	Wetzel/WV	Gilpin-Peabody complex, 35 to 70 percent slopes	0.02	<0.01	0.02	<0.01	Not Prime Farmland	0.02	0	0	0	0	0.02	0	0.02
Sk	Wetzel/WV	Skidmore gravelly loam	2.46	>99	2.46	>99	Farmland of Statewide Importance	0	0	0	2.46	0	0	0	0
Webster Interconnect Total (acres)			2.48		2.48										
Mobley Tap Site (H-306)															
Sk	Wetzel/WV	Skidmore gravelly loam	0.5	100	0.5	100	Farmland of Statewide Importance	0	0	0	0.5	0	0	0	0
Mobley Tap Site (acres)			0.5		0.5										
Applegate L/R Site															
Gub	Allegheny/PA	Guernsey silt loam, 3 to 8 percent slopes	0.39	100	0.39	100	Prime Farmland	0	0	0	0	0	0.39	0.39	0
Applegate L/R Site (acres)			0.39		0.39										
Hartson L/R Site (H-148)															
WeD	Washington/PA	Westmoreland silt loam, 15 to 25 percent slopes	0.11	100	0.11	100	Not Prime Farmland	0.11	0	0	0	0	0.11	0.11	0.11
Hartson L/R Site (acres)			0.11		0.11										
H-302 Tap L/R Site															
DiF	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.33	100	0.33	100	Not Prime Farmland	0.33	0	0	0	0	0	0	0.33
H-302 Tap L/R Site (acres)			0.33		0.33										
Soil limitations are reported in acres. Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.															

Attachment 7-1 Appendix 7-B (Revised July 13, 2016) Soil Map Units of Additional Temporary Work Spaces Associated with the Aboveground Facilities															
Soil Map Unit Symbol	County	Soil Map Unit Name	Temporary Impact		Permanent Impact		Designated Farmland	Slopes ≥ 15%	Hydric Soils	Shallow Depth to Groundwater	Stony/ Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
			Acres	Percent of Site	Acres	Percent of Site									
Pratt Compressor Station															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
Pratt CS Total (acres)			0		0										
Redhook Compressor Station															
Df	Greene/PA	Dormont-Culleoka complex, 25 to 50 percent slopes	0.58	0.39	0.58	0.39	Not Prime Farmland	0.58	0	0	0	0	0	0.58	0.58
Nw	Greene/PA	Newark silt loam	0.92	0.61	0.92	0.61	Farmland of Statewide Importance	0	0	0	0	0	0	0.92	0.92
Redhook CS Total (acres)			1.5		1.5										
Webster Interconnect															
GpF	Wetzel/WV	Gilpin-Peabody complex, 35 to 70 percent slopes	0.02	0.01	0.02	0.01	Not Prime Farmland	0.02	0	0	0	0	0.02	0	0.02
Sk	Wetzel/WV	Skidmore gravelly loam	1.53	99	1.53	99	Farmland of Statewide Importance	0	0	0	1.53	0	0	0	0
Webster Interconnect Total (acres)			1.55		1.55										
Mobley Tap Site (H-306)															
Sk	Wetzel/WV	Skidmore gravelly loam	0.11	100	0.11	100	Farmland of Statewide Importance	0	0	0	0.11	0	0	0	0
Mobley Tap Site (acres)			0.11		0.11										
Applegate L/R Site															
	Allegheny/PA		0	0	0	0		0	0	0	0	0	0	0	0
Applegate L/R Site (acres)			0		0										
Hartson L/R Site (H-148)															
	Washington/PA		0	0	0	0		0	0	0	0	0	0	0	0
Hartson L/R Site (acres)			0		0										
H-302 Tap L/R Site															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
H-302 Tap L/R Site (acres)			0		0										
Soil limitations are reported in acres. Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.															

Attachment 7-1 Appendix 7-B (Revised July 13, 2016) Soil Map Units of the Access Roads Associated with the Aboveground Facilities															
Soil Map Unit Symbol	County	Soil Map Unit Name	Temporary Impact		Permanent Impact		Designated Farmland	Slopes ≥ 15%	Hydric Soils	Shallow Depth to Groundwater	Stony/ Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
			Acres	Percent of Site	Acres	Percent of Site									
Pratt Compressor Station															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Pratt CS Total (acres)	0		0										
Redhook Compressor Station															
	Greene/PA		0	0.00	0	0.00		0	0	0	0	0	0	0	0
		Redhook CS Total (acres)	0		0										
Webster Interconnect															
Sk	Wetzel/WV	Skidmore gravelly loam	0.12	100	0.12	100	Farmland of Statewide Importance	0	0	0	0.12	0	0	0	0
		Webster Interconnect Total (acres)	0.12		0.12										
Mobley Tap Site (H-306)															
	Wetzel/WV		0	0	0	0		0	0	0	0	0	0	0	0
		Mobley Tap Site (acres)	0		0										
Applegate L/R Site															
	Allegheny/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Applegate L/R Site (acres)	0		0										
Hartson L/R Site (H-148)															
	Washington/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Hartson L/R Site (acres)	0		0										
H-302 Tap L/R Site															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
		H-302 Tap L/R Site (acres)	0		0										
Soil limitations are reported in acres. Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.															

Attachment 7-1
Appendix 7-B
(Revised July 13, 2016)

Soil Map Units of Contractor Yards and Staging Areas Associated with the Aboveground Facilities

Soil Map Unit Symbol	County	Soil Map Unit Name	Temporary Impact		Permanent Impact		Designated Farmland	Slopes ≥ 15%	Hydric Soils	Shallow Depth to Groundwater	Stony/ Rocky Soils	Poor Drainage Potential	Soils Prone to Erosion by Water	Soils Prone to Compaction	Poor Revegetation Potential
			Acres	Percent of Site	Acres	Percent of Site									
Pratt Compressor Station															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Pratt CS Total (acres)	0		0										
Redhook Compressor Station															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Redhook CS Total (acres)	0		0										
Webster Interconnect															
	Wetzel/WV		0	0	0	0		0	0	0	0	0	0	0	0
		Webster Interconnect Total (acres)	0		0										
Mobley Tap Site (H-306)															
	Wetzel/WV		0	0	0	0		0	0	0	0	0	0	0	0
		Mobley Tap Site (acres)	0		0										
Applegate L/R Site															
	Allegheny/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Applegate L/R Site (acres)	0		0										
Hartson L/R Site (H-148)															
	Washington/PA		0	0	0	0		0	0	0	0	0	0	0	0
		Hartson L/R Site (acres)	0		0										
H-302 Tap L/R Site															
	Greene/PA		0	0	0	0		0	0	0	0	0	0	0	0
		H-302 Tap L/R Site (acres)	0		0										
Soil limitations are reported in acres. Sources: Soil Survey Staff 2015a, 2015b, and as designated by the NRCS.															

(Revised July 13, 2016)

Proposed Mitigation Measures

* Sources: Pennsylvania DEP eMapPa US EPA Envirofacts Facility Registry Service and West Virginia DEP TAGIS GIS Resources Toxic Release Inventory and Open Dump Cleanup Projects.