



**Dominion Transmission, Inc.**  
701 East Cary Street, Richmond, VA 23219

December 8, 2011

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, DC 20426

**Re: Dominion Transmission, Inc.  
Allegheny Storage Project  
PF11-9-000  
Draft Applicant Prepared Environmental Assessment**

Dear Secretary Bose:

On July 28, 2011, the Commission issued an Approval of the Pre-Filing Process Request for Dominion Transmission, Inc.'s (DTI) Allegheny Storage Project (Project) and the associated National Environmental Policy Act (NEPA) review process, as filed under the above referenced docket. DTI hereby submits the draft Applicant Prepared Environmental Assessment.

If you have any questions, please contact me at 804-771-4416.

Respectfully submitted,

*/s/ Amanda K. Prestage*

Amanda K. Prestage  
Regulatory and Certificates Analyst III

cc: Jessica Harris, FERC



Federal Energy  
Regulatory  
Commission

Office of  
Energy Projects

December 2011

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Dominion Transmission, Inc.

Docket No. PF11-9-000  
CP12-\_-000

# Allegheny Storage Project

## Environmental Assessment

**DRAFT**

Washington, DC 20426

FEDERAL ENERGY REGULATORY COMMISSION  
WASHINGTON, D.C. 20426

OFFICE OF ENERGY PROJECTS

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In Reply Refer To:  
OEP/DG2E/Gas 1  
Dominion Transmission, Inc.  
Docket No. CP12-\_\_\_\_\_

TO THE PARTY ADDRESSED:

The staff of the Federal Energy Regulatory Commission (FERC or Commission) has prepared this environmental assessment (EA) for the Allegheny Storage Project proposed by Dominion Transmission, Inc. (DTI) in the above-referenced docket. DTI requests authorization to construct natural gas facilities in Frederick County, Maryland; Monroe County, Ohio; Lewis County, West Virginia; and Tioga County, Pennsylvania. The Allegheny Storage Project would provide a total of 125,000 dekatherms per day of both natural gas storage and transportation service to its customers: Baltimore Gas and Electric, TW Philips, and Washington Gas Light.

The EA assesses the potential environmental effects of the construction and operation of the Allegheny Storage Project in accordance with the requirements of the National Environmental Policy Act. The FERC staff concludes \_\_\_\_\_

DTI plans to construct and operate one new compressor station in both Frederick County, Maryland and Monroe County, Ohio. In addition, DTI plans to replace about 3 miles of pipeline in Tioga County, Pennsylvania and install additional dehydration at an existing compressor station in Lewis County, West Virginia. According to DTI, the Allegheny Storage Project would provide a total of 125,000 dekatherms per day of both natural gas storage and transportation service to its customers: Baltimore Gas and Electric, TW Philips, and Washington Gas and Light. The planned project would meet a Northeast and Mid-Atlantic need for natural gas.

The planned Allegheny Storage Project would consist of the following facilities:

- a new 16,000-horsepower (hp) Myersville Compressor Station, 0.6-mile suction and discharge pipelines, and upgrades at the existing Tuscarora Meter Station in Frederick County, Maryland;
- a new 3,550-hp Mullett Compressor Station, upgrades at the existing Mullett Meter Station, and installation of 0.5-mile suction and discharge pipelines in Monroe County, Ohio;

**DRAFT**

- replacement of 1.8 miles of 10- and 12-inch-diameter pipelines and 1.3 miles of 8- and 12-inch-diameter pipelines with 16- and 20-inch-diameter pipelines, respectively, and the installation of ancillary equipment at the Sabinsville Storage Station in Tioga County, Pennsylvania; and
- installation of additional dehydration at the existing Wolf Run Compressor Station in Lewis County, West Virginia.

The EA has been placed in the public files of the FERC and is available for viewing on the FERC's website at [www.ferc.gov](http://www.ferc.gov) using the eLibrary link. A limited number of copies of the EA are available for distribution and public inspection at:

Federal Energy Regulatory Commission  
Public Reference Room  
888 First Street NE, Room 2A  
Washington, DC 20426  
(202) 502-8371

Copies of the EA have been mailed to federal, state, and local government representatives and agencies; elected officials; Native American tribes; potentially affected landowners and other interested individuals and groups; newspapers and libraries in the project area; and parties to this proceeding. Any person wishing to comment on the EA may do so. Your comments should focus on the potential environmental effects, reasonable alternatives, and measures to lessen or avoid environmental impacts. The more specific your comments, the more useful they will be. To ensure that your comments are properly recorded and considered prior to a Commission decision on the proposal, it is important that we receive your comments in Washington, DC on or before \_\_\_\_\_, **2012**.

For your convenience, there are three methods you can use to submit your comments to the Commission. In all instances, please reference the project docket number (CP12-\_\_\_\_\_) with your submission. The Commission encourages electronic filing of comments and has dedicated eFiling expert staff available to assist you at 202-502-8258 or [efiling@ferc.gov](mailto:efiling@ferc.gov).

- (1) You may file your comments electronically by using the [eComment](#) feature, which is located on the Commission's Internet website at [www.ferc.gov](http://www.ferc.gov) under the link to [Documents and Filings](#). An eComment is an easy method for interested persons to submit brief, text-only comments on a project;
- (2) You may file your comments electronically by using the [eFiling](#) feature, which is located at [www.ferc.gov](http://www.ferc.gov) under the link to [Documents and Filings](#). With eFiling, you can provide comments in a variety of formats by attaching them as a file with your submission. New eFiling users must first create an

account by clicking on “[eRegister](#).” You will be asked to select the type of filing you are making. A comment on a particular project is considered a “Comment on a Filing;” or

- (3) You may file a paper copy of your comments at the following address:

Kimberly D. Bose, Secretary  
Federal Energy Regulatory Commission  
888 First Street NE, Room 1A  
Washington, DC 20426

Although your comments will be considered by the Commission, simply filing comments will not serve to make the commentor a party to the proceeding. Any person seeking to become a party to the proceeding must file a motion to intervene pursuant to Rule 214 of the Commission's Rules of Practice and Procedures (18 CFR 385.214).<sup>1</sup> Only intervenors have the right to seek rehearing of the Commission's decision.

Affected landowners and parties with environmental concerns may be granted intervenor status upon showing good cause by stating that they have a clear and direct interest in this proceeding which would not be adequately represented by any other parties. **You do not need intervenor status to have your comments considered.**

Additional information about the project is available from the Commission's Office of External Affairs at **(866) 208-FERC** or on the FERC website ([www.ferc.gov](http://www.ferc.gov)) using the eLibrary link. Click on the eLibrary link, click on “General Search” and enter the docket number excluding the last three digits in the Docket Number field (i.e., CP12-\_\_\_\_). Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at [FercOnlineSupport@ferc.gov](mailto:FercOnlineSupport@ferc.gov) or toll free at (866) 208-3676, or for TTY, contact (202) 502-8659. The eLibrary link also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

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<sup>1</sup> Interventions may also be filed electronically via the Internet in lieu of paper. See the previous discussion of filing comments electronically.

In addition, the Commission offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notifications of these filings, document summaries, and direct links to the documents. Go to ([www.ferc.gov/esubscribenow.htm](http://www.ferc.gov/esubscribenow.htm)).

Kimberly D. Bose  
Secretary

# TABLE OF CONTENTS

LIST OF TABLES.....	ii
ABBREVIATIONS AND ACRONYMS.....	iii
A. PROPOSED ACTION.....	1
1.0 INTRODUCTION.....	1
2.0 PURPOSE AND NEED.....	1
3.0 PROPOSED FACILITIES.....	2
4.0 PUBLIC REVIEW AND COMMENT.....	3
5.0 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS.....	5
6.0 CONSTRUCTION, OPERATION, AND MAINTENANCE PROCEDURES.....	7
7.0 LAND REQUIREMENTS.....	11
8.0 FUTURE PLANS AND ABANDONMENT.....	11
B. ENVIRONMENTAL ANALYSIS.....	12
1.0 GEOLOGY AND SOILS.....	12
1.1 Geology.....	12
1.2 Soils.....	14
2.0 WATER RESOURCES.....	16
2.1 Groundwater Resources.....	16
2.2 Surface Water.....	17
2.3 Wetlands.....	18
3.0 VEGETATION AND WILDLIFE.....	19
3.1 Vegetation.....	19
3.2 Wildlife.....	19
3.3 Special Status Species.....	20
4.0 CULTURAL RESOURCES.....	21
5.0 LAND USE, RECREATION, AND VISUAL RESOURCES.....	21
5.1 Land Use.....	21
5.2 Recreational Resources and Special Interest Areas.....	25
5.3 Visual Resources.....	25
6.0 AIR QUALITY AND NOISE.....	27
6.1 Air Quality.....	27
6.2 Noise.....	35
7.0 RELIABILITY AND SAFETY.....	38
8.0 CUMULATIVE IMPACTS.....	41
C. ALTERNATIVES.....	46
1.0 INTRODUCTION.....	46
2.0 NO ACTION ALTERNATIVE.....	47
3.0 SYSTEM ALTERNATIVES.....	47
4.0 ABOVEGROUND FACILITY ALTERNATIVES.....	48
D. CONCLUSIONS AND RECOMMENDATIONS.....	49
E. REFERENCES.....	53
F. LIST OF PREPARERS.....	54

## LIST OF TABLES

Table 1: Customers for DTI’s Allegheny Storage Project.....	2
Table 2: Summary of Scoping Comments.....	4
Table 3: Permits and Approvals for DTI’s Allegheny Storage Project.....	6
Table 4: Hydrostatic Withdrawal and Discharge Locations.....	18
Table 5: Land Use Affected by DTI’s Allegheny Storage Project.....	22
Table 6: Access Roads.....	24
Table 7: Estimated Construction Air Emissions (tpy).....	28
Table 8: Fugitive Dust Estimate from Construction.....	29
Table 9: Total Operational Emission Summary for DTI’s Allegheny Storage Project (tpy).....	30
Table 10: Noise Impacts at the Proposed Myersville and Mullett Compressor Stations.....	36
Table 11: Cumulative Impacts - Active, Recently Completed, and Future Development in DTI’s Project Area.....	41

## APPENDIX

### LIST OF FIGURES

Figure 1: Allegheny Storage Project, General Location Map
Figure 2: Allegheny Storage Project, Maryland Facilities
Figure 3: Allegheny Storage Project, Ohio Facilities
Figure 4: Allegheny Storage Project, West Virginia Facilities
Figure 5: Allegheny Storage Project, Pennsylvania Facilities
Figure 6: Nearest Noise Sensitive Receptors, Myersville Compressor Station
Figure 7: Nearest Noise Sensitive Receptors, Mullett Compressor Station
Figure 8: Alternate Compressor Station Sites for Myersville Compressor Station
Figure 9: Alternate Compressor Station Sites for Mullett Compressor Station

## ABBREVIATIONS AND ACRONYMS

amsl	above mean sea level
AQCR	Air quality control regions
Bcf	billion cubic feet
BMP	Best Management Practices
CAA	Clean Air Act
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
CH <sub>4</sub>	methane
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2eq</sub>	Emissions of greenhouse gases
Commission or FERC	Federal Energy Regulatory Commission
dB	decibels
dBA	A-weighted scale
Dth/d	dekatherms per day
DOT	U.S. Department of Transportation
DTI	Dominion Transmission, Inc.
EA	environmental assessment
EI	Environmental Inspector
EPA	U.S. Environmental Protection Agency
FWS	U.S. Fish and Wildlife Service
GHG	greenhouse gases
HAP	hazardous air pollutants
hp	horsepower
I-70	Interstate 70
lb	pound
LDCs	Local Distribution Companies
L <sub>dn</sub>	day-night sound level
L <sub>eq</sub>	equivalent sound level
M&R	metering and regulating
MAOP	maximum allowable operating pressure
MDNR	Maryland Department of Natural Resources
MBTA	Migratory Bird Treaty Act
MDE	Maryland Department of the Environment
MMBtu/hr	million British thermal units per hour
mmcf/d	million standard cubic feet per day
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act of 1969
NESHAP	National Emission Standards for Hazardous Air Pollutants
NGA	Natural Gas Act
NNSR	Nonattainment New Source Review

NOI	<i>Notice of Intent to Prepare an Environmental Assessment for the Planned Allegheny Storage Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meeting</i>
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NRCS	U.S. Department of Agriculture's National Resources Conservation Service
NSA	noise-sensitive areas
NSPS	New Source Performance Standards
NSR	New Source Review
O <sub>3</sub>	ozone
ODNR	Ohio Department of Natural Resources
OTR	Ozone Transport Region
PADEP	Pennsylvania Department of Environmental Protection
Park	Chesapeake and Ohio Canal National Historical Park
PDCNR	Pennsylvania Department of Conservation and Natural Resources
PFBC	Pennsylvania Fish and Boat Commission
PGC	Pennsylvania Game Commission
PHMSA	Pipeline and Hazardous Materials Safety Administration's
Plan	<i>FERC Upland Erosion Control, Revegetation, and Maintenance Plan</i>
PM <sub>10</sub>	particulate matter with a diameter ≤ 10 microns
PM <sub>2.5</sub>	particulate matter with a diameter ≤ 2.5 microns
PNDI	Pennsylvania Natural Diversity Inventory
ppmvd	parts per million, volumetric dry
Procedures	<i>FERC Wetland and Waterbody Construction and Mitigation Procedures</i>
project	Allegheny Storage Project
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTE	potential-to-emit
REX	Rockies Express Pipeline LLC
SHPO	State Historic Preservation Offices
SIP	State Implementation Plans
SO <sub>2</sub>	sulfur dioxide
SPCC Plan	<i>Spill Prevention Control and Containment Plan</i>
tpy	tons per year
VOC	volatile organic compounds
WMA	Wildlife Management Area
WVDEP	West Virginia Department of Environmental Protection

## **A. PROPOSED ACTION**

### **1.0 INTRODUCTION**

The staff of the Federal Energy Regulatory Commission (Commission or FERC) has prepared this environmental assessment (EA) to assess the environmental effects of the natural gas pipeline facilities proposed by Dominion Transmission, Inc. (DTI). We<sup>1</sup> prepared this EA in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA), (Title 40 of the Code of Federal Regulations [CFR], Parts 1500-1508 [40 CFR 1500-1508]), and with the Commission’s implementing regulations under 18 CFR 380.

On, \_\_\_\_\_, 2012, DTI filed an application with the Commission in Docket No. CP12-\_\_\_\_-000 under section 7(c) of the Natural Gas Act (NGA). DTI seeks to construct and operate certain natural gas facilities in Maryland, Ohio, West Virginia, and Pennsylvania. DTI’s project is referred to as the Allegheny Storage Project (Project). The proposed Project would provide additional natural gas storage options and firm transportation service in the growing Northeast and Mid-Atlantic gas markets.

The EA is an important and integral part of the Commission’s decision on whether to issue DTI a Certificate of Public Convenience and Necessity (Certificate) to construct and operate the proposed facilities. Our principal purposes in preparing this EA are to:

- identify and assess potential impacts on the natural and human environment that could result from implementation of the proposed action;
- identify and recommend reasonable alternatives and specific mitigation measures, as necessary, to avoid or minimize project-related environmental impact; and
- facilitate public involvement in the environmental review process.

### **2.0 PURPOSE AND NEED**

The purpose of the Allegheny Storage Project is to provide three of DTI’s customers, all Local Distribution Companies (LDCs), with up to 125,000 dekatherms per day (Dth/d) of storage service (with a capacity of 7.5 billion cubic feet [Bcf]) and 125,000 Dth/d of firm transportation services in Ohio, West Virginia, Pennsylvania, and Maryland. These LDCs would in turn provide the gas on regional and local basis to local residences, businesses, industries, and power plants. Storage demand and capacity would be supplied by DTI’s existing storage facilities at Sabinsville Storage Pool and Fink Kennedy/Lost Creek Storage Complex. The customers and service levels for the Project are provided in Table 1.

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<sup>1</sup> “We,” “us,” and “our” refers to environmental staff of the Office of Energy Projects.

<b>Table 1: Customers for DTI's Allegheny Storage Project</b>			
<b>Customer</b>	<b>Delivery (Dth/d)/ Delivery Site</b>	<b>Storage Demand (Dth/d)</b>	<b>Storage Capacity (Bcf)</b>
Washington Gas Light	100,000 at Leesburg/Loudoun, VA	100,000	6.0
Baltimore Gas & Electric	15,000 at Tuscarora, MD	15,000	0.9
TW Phillips	10,000 at Butler, PA	10,000	0.6
<b>Total</b>	<b>125,000</b>	<b>125,000</b>	<b>7.5</b>

Commenters on the Maryland facilities wanted to know why the Storage Factory Project, which had similar proposed facilities in Frederick County, had been withdrawn in 2008 (see Section A.4 for public scoping comments). DTI stated that it had suspended the proposed Storage Factory Project due to technical aspects and complexities with the new gas storage facilities associated with that project.

We also received a number of comments with concerns that the additional volumes on the Maryland facilities would not be used in Maryland or would be shipped overseas through the Dominion Cove Point liquefied natural gas (LNG) Terminal. DTI noted that Washington Gas Light is one of the customers in the mid-Atlantic area and has contracted for 100,000 Dth/d to be delivered at the Leesburg and Loudoun, Virginia M&R interconnects. Washington Gas Light distributes natural gas to customers in the District of Columbia, Maryland, and Virginia. The other mid-Atlantic customer is Baltimore Gas & Electric, which has contracted for 15,000 Dth/d to be delivered at the Tuscarora, Maryland M&R interconnect.

In order for the natural gas provided by the Project to be shipped overseas, a liquefaction facility would be required to liquefy (or convert) the natural gas to LNG. The Dominion Cove Point LNG Terminal does not have liquefaction facilities for exporting. Therefore, it is not possible for natural gas from the Project to be exported overseas. DTI also stated that the need for the currently proposed compressor station, and the other Project facilities, stems from a 2007 agreement related to natural gas storage and firm transportation services. It is not associated, in any way, with Dominion's Cove Point LNG Terminal or potential export from the terminal.

### **3.0 PROPOSED FACILITIES**

A general location map for the Allegheny Storage Project, Figure 1, is located in the Appendix. DTI's proposed Project would consist of the following:

- Frederick County, Maryland (see appendix, Figure 2):
  - Construct a new compressor station (Myersville Compressor Station) consisting of a natural gas combustion turbine with a rating of 16,000 horsepower (hp) of compression,
  - Install 0.6 mile of 30-inch-diameter suction/discharge pipelines (Myersville Suction/Discharge pipelines) extending from the new Myersville Compressor Station to a new Valve Site on DTI's existing pipeline, and

- Upgrade DTI's existing Tuscarora metering and regulating (M&R) Station including replacement of the indirect gas heater/boiler and inlet gas filter-separator, and modify and upgrade the existing M&R equipment and controls.
- Monroe County, Ohio (see appendix, Figure 3)
  - Construct a new compressor station (Mullett Compressor Station) with a reciprocating engine/compressor with a rating of 3,550 hp of compression,
  - Install 0.5 mile of 16-inch-diameter suction/10-inch-diameter discharge pipelines (Mullett Suction/Discharge pipelines) extending from the new Mullett Compressor Station to DTI's existing Mullett 1 M&R Station, and
  - Upgrade DTI's existing Mullett 1 M&R Station including metering modifications to add bidirectional measurement capability, replacement of antiquated equipment and electronics, and add a suction/discharge valve assembly within the yard area of the M&R station to connect to the Mullett Suction/Discharge pipelines that would be routed to and from the new Mullett Compressor Station.
- Lewis County, West Virginia (see appendix, Figure 4)
  - Install an additional 100 million standard cubic feet per day of additional dehydration at DTI's existing Wolf Run Compressor Station, essentially doubling the dehydration capacity that is currently installed at the site.
- Tioga County, Pennsylvania (see appendix, Figure 5)
  - Add piping and ancillary equipment at DTI's existing Sabinsville Storage Station, including an additional dry desiccant dehydration vessel, replacement of the dehydration system cooling bundle and inlet scrubber, replacement of the main station storage discharge header piping, and replacement of the station's high-pressure gas discharge cooler;
  - Take-up 1.8 miles of existing 12-inch and 10-inch pipeline and replace with 16-inch diameter pipeline (Sabinsville West Replacement), and
  - Take-up 1.3 miles of existing 12-inch and 8-inch pipeline and replace with 20-inch diameter pipeline (Sabinsville East Replacement).

#### **4.0 PUBLIC REVIEW AND COMMENT**

On October 24, 2011, the Commission issued a *Notice of Intent to Prepare an Environmental Assessment for the Planned Allegheny Storage Project, Request for Comments on Environmental Issues, and Notice of Public Scoping Meeting* (NOI). The NOI was mailed to federal, state, and local government representatives and agencies; elected officials; Native American tribes; potentially affected landowners; environmental and public interest groups; newspapers and libraries in the Project area; and parties to this proceeding.

During the scoping period (October 24 through November 23, 2011), we received a total of 664 letters, including 558 form letters within the official scoping period. All comment letters, with the exception of four, were in response to the proposed Frederick County, Maryland facilities. The

comments included letters from 656 individuals, 3 federal agencies, 1 state agency, 1 county agency, and 3 Maryland state representatives.

On November 7, 2011, Commission staff conducted a scoping meeting at Myersville, Maryland. Approximately 400 people attended and 54 people provided comments or requested information on the review process. On November 8, 2011, Commission staff conducted a scoping meeting in Powhatan Point, Ohio. About a dozen people attended. One individual commented on noise at facilities near the existing Mullett 1 M&R Station.

Table 2 summarizes the issues, most of which were associated with the proposed site for the Myersville Compressor Station. Written and oral comments received throughout the scoping period have been addressed in the appropriate areas within sections B and C of this EA.

<b>Table 2: Summary of Scoping Comments</b>		
<b>General Concern</b>	<b>Number of Comments Received</b>	<b>Percent of Total</b>
Agriculture (Maryland facilities) – Effect of station air emissions, noise, and potential engine coolant leaks on agricultural crops, livestock, chickens, and grape vines.	8	1%
Air (Maryland facilities) – Effect of station air emissions on health; location of station within a valley that will trap emissions and pollutants and degrade local air quality; need for extensive air dispersion modeling and risk assessments; concerns regarding DTI’s compliance with air regulations at other facilities; concerns with specific pollutants emitted from station.	79	12%
Alternatives (Maryland facilities) – Identify an alternate location of low population density away from the town, its schools, and a major highway; station should not be sited in a rural area; station should be sited in an area zoned industrial , not commercial; evaluate alternate sites.	45	7%
Cultural (Maryland facilities) – Effect of station on existing historic buildings.	4	1%
General (Maryland facilities) – Concerns with regulatory requirements and compliance with these regulations; extend scoping period; extend notification area to at least 2 miles; ; authority of FERC to overrule local zoning laws. Repair of roads damaged during construction (Mullett Compressor Station).	62	10%
Geology (Maryland facilities) – Fault along South Mountain Ridge and history of sink holes will affect safe operation of the station; susceptibility of area to earthquakes.	8	1%
Health (Maryland facilities) – Compressor stations produce toxins that will threaten health and productivity; effects of station emissions on quality of life.	21	3%
Land Use / Visual (Maryland facilities) – Effects of station on nearby residences; station does not comply with Maryland Rural legacy and is within the Mid-Maryland Priority Preservation Area (area of significant prime farmland soils); degradation of viewshed at nearby residences, parks (Washington Monument, Gambrell, Greenbriar, and South Mountain State Parks) and Appalachian Trail; visual simulations need to take into account winter (“leaf off”) conditions and views from high elevations; proximity to boy scout camp, site is zoned commercial, not industrial; station will set precedence for more industry in Myersville; effect of expansion of Tuscarora M&R on Frederick County water treatment plant and transmission lines.	59	9%
NEPA Document / Process(Maryland facilities).	10	2%

<b>Table 2: Summary of Scoping Comments</b>		
<b>General Concern</b>	<b>Number of Comments Received</b>	<b>Percent of Total</b>
Noise (Maryland facilities) – Station will cause noise pollution; effect of low frequency noise and vibration on health of nearby residents and could damage nearby bridge.	38	6%
Project Description (Maryland facilities) – Provide additional information on site acres, valve site, size and capacity of compressors to be used, security plans, life expectancy of station, access road to the station.	18	3%
Project Need / Future Plans (Maryland facilities) – Project is providing to natural gas (benefits) to other communities, not to Myersville; provide need for station location in Myersville; natural gas provided by Project will be exported overseas; disclose expansion plans.	34	5%
Property Values (Maryland facilities) – Potential for decreased property values.	17	3%
Safety (Maryland facilities) – Too close to schools, highway (evacuation route), residents in the event of an accident; security is inadequate for potential high risk terrorist target; volunteer fire department may be unable to handle station emergency; what are the emergency response and evacuation plans; describe leak detection systems; additional station volumes will stress existing (older) pipelines.	147	23%
Socioeconomics (Maryland facilities) – No jobs will be created, only pollution, noise and unsafe conditions; will create temporary jobs during construction; Myersville will receive needed tax revenue; school enrollment will go down.	18	3%
Traffic (Maryland facilities) – Truck traffic (refilling and transporting, and waste disposal) will affect community; effects of increased traffic on Catoctin Creek Bridge.	3	< 1%
Water (Maryland facilities) – Effects of potential groundwater contamination from spills on wells, springs, and watershed; identify adjacent areas that might be affected in the event of a spill; Myersville has a history of challenges with regard to water supply; expansion of the Tuscarora M&R Station could impact County’s water transmission assets; concerns with source and discharge of hydrostatic test water; assess groundwater contamination with respect to proximity to the BP gas station and Alban business site due to past groundwater contamination from these facilities; concerns with spills/leaks or soil erosion affecting streams crossed by Project facilities, which are classified as public water supplies; impacts of station on water treatment plant.	60	9%
Wetlands(Maryland facilities) – Avoid or minimize impacts on wetlands.	1	< 1%
Wildlife (Maryland facilities) – Evaluate impacts on endangered and threatened species.	6	1%
<b>Total Comments</b>	<b>638</b>	

## **5.0 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS**

DTI would obtain all necessary permits, licenses, clearances, and approvals related to construction and operation of the Allegheny Storage Project, respectively. DTI would provide all relevant permits and approvals to the contractor, who would be required to adhere to applicable requirements. Table 3 displays the major anticipated federal and state permits for DTI.

<b>Table 3: Permits and Approvals for DTI's Allegheny Storage Project</b>	
<b>Administrating Agency</b>	<b>Permit/Approval/Review</b>
<b>Federal</b>	
Federal Energy Regulatory Commission	Certificate of Public Convenience and Necessity
U.S. Army Corps of Engineers	Section 404 - Clean Water Act Baltimore District Pittsburgh District
U.S. Fish and Wildlife Service	Section 7 Consultation - Endangered Species Act & Migratory Bird Conservation Act Annapolis Field Office, MD Columbus Field Office, OH Elkins Field Office, WV State College Field Office, PA
Tribal Historic Preservation Offices	Native American Consultation (Absentee Shawnee Tribe of Indians of Oklahoma, Delaware Nation, Delaware Tribe of Indians, Eastern Shawnee Tribe of Oklahoma, Seneca Nation of Indians, Seneca-Cayuga Tribe of Oklahoma, Shawnee Tribe, Tonawanda Band of Seneca Indians of New York)
<b>Maryland</b>	
Maryland Department of the Environment	Section 401 Water Quality Certification
	Stormwater Discharge from Construction Activities
	Waterway and 100-Year Floodplain (Nontidal Wetlands and Waterways Permit)
	Hydrostatic Test Discharge Permit
	Air Quality Permit to Construct/Permit to Operate
Maryland Department of Natural Resources	Consultation on Threatened and Endangered Species
Maryland Historic Trust	Consultation under Section 106 of the National Historic Preservation Act
Frederick County Development Review	Stormwater Management Frederick County Forest Ordinance Grading Permit
Frederick and Catoctin Soil Conservation District	Erosion & Sediment Control Plan Review
Town of Myersville	Zoning Approval
<b>Ohio</b>	
Ohio Environmental Protection Agency	Section 401 Water Quality Certification
	Storm Water Discharge from Construction Activities
	Hydrostatic Test Discharge Permit
	Air Permit to Install and Operate
Ohio Department of Natural Resources	Consultation on Threatened and Endangered Species
Ohio Historic Preservation Office	Consultation under Section 106 of the National Historic Preservation Act

<b>Table 3: Permits and Approvals for DTI's Allegheny Storage Project</b>	
<b>Administrating Agency</b>	<b>Permit/Approval/Review</b>
<b>West Virginia</b>	
West Virginia Department of Environmental Protection	Section 401 Water Quality Certification
	Construction Stormwater General Permit
	Hydrostatic Test Discharge Permit
	Existing Air Permit Modification
West Virginia Division of Natural Resources	Consultation on Threatened and Endangered Species
West Virginia Division of Culture and History	Consultation under Section 106 of the National Historic Preservation Act
<b>Pennsylvania</b>	
Pennsylvania Department of Environmental Protection	Section 401 Water Quality Certification
	Wetlands & Waterbody & Crossing Encroachment Permit
	Erosion and Sediment Control General Permit (ESCGP-1)
	Hydrostatic Test Water Discharge
	Modification to Existing Air Permit
Pennsylvania Game Commission	Consultation on Threatened and Endangered Species
Pennsylvania Game Commission	Consultation on Threatened and Endangered Species
Pennsylvania Fish and Boat Commission	Consultation on Threatened and Endangered Species
Pennsylvania Department of Conservation and Natural Resources	Consultation on Threatened and Endangered Species
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation	Consultation under Section 106 of the National Historic Preservation Act
Tioga County Conservation District	Erosion and Sediment Control General Permit

## **6.0 CONSTRUCTION, OPERATION, AND MAINTENANCE PROCEDURES**

DTI would construct, operate, and maintain the proposed Project in compliance with all applicable federal and state permit requirements, regulations, and environmental guidelines. The key relevant federal regulations are those of the U.S. Department of Transportation (DOT) under 49 CFR 192 - *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*. These regulations ensure adequate protection for the public and prevent natural gas facility accidents and failures. In addition, DTI must comply with our regulations in 18 CFR 380.15, *Siting and Maintenance Requirements*.

DTI anticipates that construction of the Project would begin in early 2013, with an in-service date of November 2014. Construction of the various facilities would be staggered over the 20-month period with construction of any one facility ranging between 4 and 6 months. DTI would implement our *Upland Erosion Control, Revegetation, and Maintenance Plan* (Plan) and *Wetland and Waterbody Construction and Mitigation Procedures* (Procedures) during construction and restoration of the Allegheny Storage Project. During construction, DTI would also implement

its *Spill Prevention Control and Containment Plan* (SPCC Plan) in accordance with the Procedures (and state construction stormwater permits) to ensure proper handling of lubricants, fuel, or other potentially toxic materials and prevent spills. In addition, during operation, DTI would prepare and implement station-specific SPCC Plans at its new compressor stations designed to comply with EPA requirements under the Clean Water Act.

### Pipeline Construction Techniques

DTI will install the Myersville and Mullett Suction/Discharge pipelines using standard pipeline construction techniques where installation of the pipeline moves down the construction right-of-way as a moving assembly line. The construction work areas will consist of the permanent and temporary construction right-of-way, and additional temporary work space and temporary access roads if required. Following construction, the permanent right-of-way (or easement) will be maintained for operation of the pipelines. For the Sabinsville Replacement pipelines, construction will include excavation and removal of the existing pipelines before installation of the new pipelines in approximately the same location as the original pipeline.

The typical upland pipeline construction procedure involves the following activities:

Surveying – Surveying and staking of the outside limits of the construction work areas, centerline location of the pipeline, road crossings, and any temporary extra workspace, such as lay down areas or at stream crossings. The “One Call” system of each state will be contacted and underground utilities (e.g., cables, conduits, and pipelines) will be located and flagged. Affected landowners will be notified prior to surveying and staking of the centerline and workspaces.

Clearing – Following surveying, the right-of-way will be cleared of large obstacles such as trees, rocks, brush, and logs will be removed. Fences will be cut and braced along the right-of-way and temporary gates will be installed to control livestock and limit public access. The construction work areas will then be graded where necessary to create a reasonably level working surface to allow safe passage of construction equipment and materials, and for operation of pipe fabrication and installation equipment. Temporary erosion control measures, such as silt fencing and interceptor dikes, will be installed during topsoil and subsoil removal. Conserved topsoil will typically be stockpiled along one side of the right-of-way, allowing the other side to be used for access, material transport, and pipe assembly.

Trenching – A trench will be excavated using track-mounted backhoe or similar equipment. The trench will be excavated to a sufficient depth to allow a minimum of 3 feet of soil cover between the top of the pipe and the final land surface after backfilling. Excavated soil will typically be stockpiled along the trench (the “spoil” side) and away from the construction traffic and pipe assembly area (the “working” side).

Stringing – Steel pipe will be procured in nominal 40-foot and 80-foot lengths, or “joints” and protected with an epoxy coating applied at the factory. The individual joints will be transported to the construction right-of-way by truck and placed along the excavated trench in a single, continuous line, easily accessible to the construction personnel on the working side of the trench, typically opposite the spoil side.

Pipe Bending – The pipe will be delivered to the construction right-of-way in straight joints. Some induction bends may be used, and some bending of pipe may be required to allow the pipeline to follow natural grade changes and direction changes of the right-of-way. Prior to welding, selected joints will be bent in the field by track-mounted hydraulic bending machines.

Pipe Assembly and Welding – Following stringing and bending, the joints of pipe will be placed on temporary supports, adjacent to the trench. The pipe joints will be aligned and welded together using multiple passes for a full penetration weld. Only qualified welders will be allowed to perform the welding and all welding will be in accordance with applicable standards and specifications. Following welding, the uncoated ends of the pipe at the joints will be cleaned and coated, field welds will be inspected and any damaged areas will be repaired.

Pipe Lowering and Backfilling – The completed section of pipe will then be lifted off the temporary supports and lowered into the trench by side-boom tractors or equivalent equipment. After the pipe is lowered into the trench, the trench will be backfilled. Previously excavated materials will be pushed back into the trench using bladed equipment or backhoes. Any segregated topsoil will be placed after backfilling the trench with subsoil.

Cleanup and Restoration – Following hydrostatic testing, all disturbed areas will be finish-graded, and construction debris will be disposed of properly. The surface of the right-of-way disturbed by construction activities will be graded to match original contours and to be compatible with surrounding drainage patterns. Temporary and permanent erosion and sediment control measures will be installed and fences, gates, driveways, and roads that have been disturbed by the pipeline construction will be restored to original or better condition.

### Aboveground Station Techniques

During construction, DTI would clear and grade the sites for the aboveground facilities. Erosion control devices would be installed as needed to prevent erosion and offsite impacts in accordance with our Plan and Procedures, and applicable state permit requirements. Access to the aboveground facilities would be provided by extension/modification of existing access roads. One new access road would be installed for the proposed Myersville Valve Site. After construction, all temporary workspaces would be revegetated in accordance with the Plan. In addition, fencing would be placed around aboveground facilities for security purposes.

### Special Construction Techniques

Pipeline construction across waterbodies, wetlands, and roads would require special construction techniques as described below.

Waterbodies – A total of 13 waterbodies would be affected by the proposed project, including two perennial streams, seven intermittent streams, and four ephemeral streams. DTI would use a dry construction crossing technique (e.g., dam and pump or flume) if there is flowing water. However, to facilitate construction and reduce the need for tie-in crews, DTI plans to trench across all intermittent and ephemeral streams, then install a soft or hard plug at either end of the drainage, or a flume pipe, to carry water during precipitation events. When the pipe string is lowered into the trench, the soft or hard plugs, and/or flume would be removed, the pipe string lowered into the trench and backfilled. Use of this procedure would expedite construction, while

still minimizing the downstream sedimentation should there be any precipitation events during these phases of construction.

DTI would improve an existing access road for permanent access from Milt Summers Road to the proposed Myersville Compressor Station and would install a new permanent access road from Mt. Tabor Road to the proposed Myersville Valve Site. Each of these access roads would cross minor, intermittent or ephemeral streams. Culverts would be placed under the access roads at the stream crossings to accommodate water flow and would be designed in accordance with federal and state permit requirements related to anticipated stream flows.

Wetlands – A total of five wetlands with a total crossing length of 665 feet would be crossed by the proposed project pipelines. All of the wetlands are emergent (PEM) or scrub-shrub wetlands. The conventional open ditch lay method would be used to install the pipeline in wetlands. If normal construction equipment begins to rut or would result in mixing of wetland topsoil and subsoil, temporary equipment mats would be installed to allow passage of equipment with minimal disturbance of the surface and vegetation. In Section B2.3 below, we discuss DTI's request for a variance for additional workspace.

Roads – The Mullett Suction/Discharge pipelines would cross a town road twice and the Sabinsville West and East replacement pipelines would cross five paved roads and several farm roads. Road crossing permits would be obtained from applicable state, and local agencies for crossings of state or local paved roads. These permits would dictate the specific requirements for the day-to-day construction activities and methods at each crossing.

The open-cut crossing method would primarily be used on farm roads and roads with low traffic densities. The first step for an open-cut crossing would be the installation of traffic control devices. One option would be to temporarily close the road and detour the traffic around the work area onto an adjacent roadway until the crossing is completed. Another option would be to install the road crossing one lane at a time while maintaining the other lane(s) open to traffic. If the road surface is paved, the pavement over the proposed trench would be cut and removed. This would be followed by the excavation of the trench and installation of the pipeline. Trenching would be accomplished using a backhoe augmented by hand-shoveling where necessary to expose and protect existing utilities. Any existing utilities that are exposed during the excavation would be supported at their existing elevations. This support would be maintained throughout the crossing operation until the backfilling is completed.

The bore method would be used to cross roads with higher traffic densities. Boring requires the excavation of bore pits on both sides of the feature to be crossed. Specialized boring equipment is then lowered into the pit on one side of the crossing. The removal of soil and/or rock would be accomplished by a drill that contains a cutting head that cuts through the soil. An auger would be used to remove the cuttings. The final diameter of the bored hole would be slightly larger than the outside diameter of the pipeline to be installed. Once the bore is completed, the pipeline section would be pulled into place.

Residential Areas – Special care would be taken when installing the pipelines near a residence to minimize disruption and control noise and dust to the extent practicable. In general, DTI would follow the measures outlined below when working adjacent to residential areas:

- notify resident 2 weeks in advance of construction activities;
- preserve trees and landscaping;
- ensure piping is welded and installed as quickly as reasonably possible consistent with prudent pipeline construction practices to minimize construction time affecting a neighborhood; and
- backfill the trench and complete final cleanup as soon as the pipe is laid or temporarily place a steel plate over the trench.

DTI would prepare a site-specific construction plan for residences within 50 feet of the construction work.

### Environmental Inspection

DTI would use one Environmental Inspector (EI) at each major Project facility for the duration of Project construction. The EI would be on site during Project construction activities to ensure compliance with the construction procedures contained in our Plan. The EI's responsibilities include:

- ensuring compliance with applicable federal, state, and local environmental permits;
- ordering corrective actions for acts that violate the environmental conditions of the Commission's Certificate, or any other authorizing document;
- ensuring compliance with site-specific construction and restoration plans or other mitigation measures and landowner agreements; and
- maintaining construction status reports.

DTI would conduct environmental training sessions in advance of construction to ensure that all individuals working on the Project are familiar with the environmental mitigation measures appropriate to their jobs and the EI's authority.

## **7.0 LAND REQUIREMENTS**

Construction of DTI's Allegheny Storage Project would disturb a total of about 114.2 acres of land, including 56.4 acres for the aboveground facilities, 46.7 acres for the pipeline facilities, and 11.1 acres for use of temporary access roads and one new permanent access road, and one pipe/contractor yard.

## **8.0 FUTURE PLANS AND ABANDONMENT**

DTI has no plans for future expansion of the proposed facilities. Any future expansion would require a separate review and approval from the Commission, as well as the appropriate authorizations/permits from applicable state and federal agencies. In addition, DTI stated that there are no plans to abandon the facilities described in this EA.

A number of commenters in Frederick County, Maryland commented that the proposed Myersville Compressor Station would be expanded beyond that proposed in DTI's application. DTI stated that the station has been designed to only meet current contractual demand. There has been no excess capacity built into the design.

## **B. ENVIRONMENTAL ANALYSIS**

### **1.0 GEOLOGY AND SOILS**

#### **1.1 Geology**

##### Frederick County, Maryland

The proposed Myersville Compressor Station, Suction/Discharge pipelines, and Valve Site facilities are within the Blue Ridge Province while the existing Tuscarora M&R Station is located in the Lowland Section of the Piedmont Province. The Blue Ridge Province is characterized by ridges partly dissected by deep valleys. The local relief ranges from several hundred feet to 1,540 feet above mean sea level (amsl). In western Frederick County, folded and faulted sedimentary rocks are exposed in a large anticlinal fold. Limbs or flanks of the anticline are represented by Catoctin Mountain and South Mountain located to the east and west of Myersville. These two ridges are formed by Lower Cambrian quartzite, which is extremely resistant to weathering and erosion. The Catoctin River valley and Myersville are located between these two ridges in the core of the anticline. The valley is underlain by Precambrian volcanic rock.

The Lowland Section of the Piedmont Province in southern Frederick County exhibits low relief and is underlain by limestone of the upper Cambrian Frederick Formation. Relief in this area typically ranges from 60 to 80 feet. At the southern end of the low valley, where the existing Tuscarora M&R Station is located, the Potomac River and its narrow floodplain flows southeast across the northeast-southwest regional trend of the Piedmont Province.

The bedrock underlying the Maryland facilities are mapped as metabasalt unit of the Catoctin Formation and the Rocky Springs Station Member of the Frederick Formation, respectively. The surficial geology is comprised of alluvium that consists of unconsolidated clay, silt, sand, and gravel.

Commenters on the Maryland facilities noted that a fault line is located along the South Mountain ridge less than one mile from the proposed compressor station site and the site is underlain by a geologic formation known as the Middletown Gneiss. Given this, concerns have been raised with the geologic stability of the area and the potential risks to public health and safety from earthquakes.

As stated above, the bedrock geology beneath the proposed Myersville Compressor Station site has been mapped and identified by the USGS as a metabasalt unit of the Catoctin Formation. Neither of the current maps prepared by the USGS or the Maryland Geological Survey refer to the presence of Middletown Gneiss occurring beneath the Myersville Compressor Station site. Geologic faults are shown on the USGS (Frederick quadrangle map) or Maryland Geological Survey (Myersville and Smithburg quadrangle maps) and both indicate the South Mountain Fault is located approximately 3.5 miles west of the proposed compressor station site. The northern terminus of a shorter, thrust fault segment is located approximately 1.5 miles due south of the proposed compressor station and occurs in the metabasalt unit of the Catoctin Formation (Zcm) that underlies the site. This fault is interpreted to have formed more than 400 million years ago in the early Paleozoic and may be even older. Subsequent tectonics during the late Paleozoic Alleghanian Orogeny that encompassed and folded the Short Mountain Fault would suggest

tectonic activity responsible for the origin of faults in the vicinity of the compressor station no longer exists.

The last earthquake in Maryland was recorded on Friday, July 16, 2010 and had a magnitude of 3.6. The earthquake epicenter was estimated to be located in Montgomery County approximately 10 miles northwest of Rockville, Maryland and approximately 20 miles southwest of the proposed compressor station site in a different physiographic province. Another widely felt and reported earthquake with a magnitude of 5.8 was experienced in the National Capital Area on August 23, 2011. The epicenter for this earthquake occurred near Louisa and Mineral, Virginia and is approximately 125 miles south of the proposed compressor station site. The occurrence of neither of these earthquakes is therefore representative of faults or earthquake activity at the proposed site.

#### Monroe County, Ohio

The proposed Mullett Compressor Station, Suction/Discharge pipelines, and the existing M&R station are located in the Little Switzerland District of the Allegheny Plateau Section of the Appalachian Physiographic Province, which is characterized by a high plateau on the west side of the Ohio River that ranges from 1,200 to 1,300 feet amsl. The highly dissected plateau has a relief between 450 and 700 feet and is incised by high-gradient shale bottom streams. The bedrock underlying the Ohio facilities is mapped as the Dunkard Group that can be more than 600 feet thick. The surficial geology is comprised of alluvium that consists of unconsolidated clay, silt, sand, and gravel.

#### Lewis County, West Virginia

The existing Wolf Run Compressor Station is in the Appalachian Plateau Province. Relief in this area ranges from 200 to 400 feet and rock formations are relatively flat lying and unfolded. The bedrock geology is mapped as the Dunkard Group and includes the Greene, Washington and Waynesburg Formations that can reach a thickness of more than 450 feet. The surficial geology is comprised of alluvium that consists of unconsolidated clay, silt, sand, and gravel.

#### Tioga County, Pennsylvania

The existing Sabinsville Storage Station and replacement pipelines are located in the Glaciated High Plateau Section of the Appalachian Plateaus Physiographic Province of Pennsylvania. Topography in this area consists of broad to narrow, rounded to relatively flat, elongate uplands dissected by steep to shallow valleys. The elongate uplands correspond to synclines, or fold in underlying bedrock where strata dips inward or towards the axis that trends or is aligned northeast-southwest through Sabinsville. The bedrock geology underlying the Pennsylvania facilities is the Lock Haven Formation. The surficial geology is comprised of a relatively thin layer of unconsolidated material including pebbles, cobbles and boulders.

#### Mineral Resources

The Allegheny Storage Project facilities are not located near mineral resources, surface or coal mining operations and would not affect oil or gas wells. Seismic risk and soil liquefaction are not a significant concern for the Project. Landslide susceptibility/incidence is high for the

Myersville facilities in Maryland and Wolf Run in West Virginia, moderate for the Pennsylvania facilities, and low for the existing Tuscarora M&R Station in Maryland. Karst topography and land subsidence due to underground materials extraction are not considered to be a significant concern to the Project.

## Blasting

No blasting is anticipated during construction; however, if blasting is required, it would be conducted in accordance with applicable state blasting codes and any local blasting requirements. DTI would be required to file a blasting plan with the Commission prior to conducting such operations.

### **1.2 Soils**

#### Fredrick County, Maryland

The proposed Myersville Compressor Station site includes the Catoctin-Spoolsville Complex and Myersville silt loam. Catoctin soils are found on ridges and side slopes, are well drained, and have a depth to bedrock from 20 to 40 inches. Spoolsville soils are found on low ridge summits and valley areas, consist of silt loam to sandy loam, are well drained, and have a depth to bedrock within 40 to 60 inches of the surface. They are considered a U.S. Department of Agriculture's National Resources Conservation Service (NRCS) prime farmland soil. Myersville silt loam are found on nearly level to very steep uplands, are moderately well drained, and weathered bedrock is present at 40 to 60 inches from the surface. They are considered a NRCS prime farmland soil of statewide importance.

In addition to the soils described above, the Myersville Suction/Discharge pipelines also include the Codoras and Hatboro silt loams, Highfield gravelly silt loam, and Mt. Zion gravelly silt loam. These soils are considered a NRCS prime farmland soil and prime farmland soil of statewide importance and the Codoras and Hatboro soils have a high compaction potential.

Duffield-Ryder silt loam underlies the existing Tuscarora M&R Station, which are on nearly level to steep uplands, have silty textures, are well drained, and depth to bedrock ranges from 20 to 40 inches.

Commenters on the Maryland facilities also noted concerns with sinkholes. Although sinkholes are abundant in the Frederick Valley, these karst features occur in areas underlain by dolomite or limestone such as Ordovician age Grove Formation and more abundantly in the Cambrian age Frederick Formation (Brezinski et al., 2003). The proposed compressor station site is underlain by the metabasalt unit of the Catoctin Formation which is not susceptible or vulnerable to being dissolved by groundwater or subsequent collapse. This is also confirmed by mapping of the Myersville area by the Maryland Geological Survey which identifies no sinkholes in the Catoctin Formation but instead shows the nearest sinkhole to be more than 4 miles northwest of the site in an area underlain by dolomite of the Tomstown Formation (Brezinski, 2009).

### Monroe County, Ohio

The proposed Mullett Compressor Station includes the Gilpin-Upshur Complex, Gilpin-Westmoreland silt loams, and Guernsey-Westmore soils. The Gilpin-Upshur Complex is well drained with fractured bedrock present at a depth of 20 to 40 inches and depth to weathered bedrock between 40 inches and greater than 72 inches. Gilpin-Westmoreland silt loams are well drained with depth to bedrock between 40 inches and greater than 72 inches. Guernsey-Westmore soils are moderately well drained with a depth to bedrock or weathered bedrock deeper than 48 inches. All of these soils have a high erosion potential for water.

The Mullett Suction/Discharge pipelines cross the previously described Gilpin-Upshur Complex, Gilpin-Westmoreland silt loams, Guernsey-Westmore silt loams, and Dekalb loam. Dekalb loam soils range from somewhat excessively drained to well drained with a depth to bedrock from 20 to 40 inches. It has a high erosion potential for water. Gilpin-Westmoreland silt loams underlie the existing Mullett 1 M&R Station.

### Lewis County, West Virginia

The soils that underlie the existing Wolf Run Compressor Station consist of the Gilpin-Upshur Complex, which is described above.

### Tioga County, Pennsylvania

The existing Sabinsville Storage Station is underlain by six soil types including the Chenango gravelly loam, Mardin channery silt loam, Oquaga and Lordstown soils, Orrville silt loam, Pope soils, and Volusia channery silt loam. Depth to bedrock ranges between 20 inches to greater than 60 inches. The Mardin channery silt loam and Volusia channery silt loam have dense fragipans at depths between 10 inches and 26 inches. Drainage classes range from somewhat poorly drained to somewhat excessively drained. The Oquaga and Lordstown soils and Volusia channery silt loam have a high erosion potential for water. The Chenango, Pope, and Mardin (MaB) soils are considered a NRCS prime farmland soil and the Orrville, Volusia, Mardin (MaC) are considered prime farmland soil of statewide importance. In addition, the Orrville and Volusia soils have a high compaction potential.

The Sabinsville Replacement pipelines cross the previously described Chenango gravelly loam, Mardin channery silt loam, Volusia channery silt loam, Lordstown channery loam, Orrville silt loam, Pope soils, and Oquaga and Lordstown soils, and Chippewa silt loams. Chippewa silt loams are found in upland depressions and include poorly drained and very poorly drained soils. A dense fragipan is present from 8 to 20 inches and bedrock is deeper than 60 inches. In addition, the Orrville, Volusia, and Chippewa soils have a high compaction potential.

### Prime Farmland Soils

The Project compressor and storage stations would temporarily affect approximately 12.5 acres of prime farmland soils and 3.4 acres would be permanently affected; however, 11.6 acres of the temporary impacts and 1.4 acres of the permanent impacts would be within the existing Sabinsville Storage Station fence line, which is not available for agricultural use. DTI would

implement our Plan and Procedures to minimize soil disturbance, transportation of sediments outside of the construction work areas, and protection of sensitive resources during construction.

Commenters on the Maryland facilities noted that the proposed Myersville Compressor Station is in close proximity to a Maryland State Agricultural Preservation Program Priority Preservation Area and the Installment Purchase Program/County Easements. These easements contain significant prime farmland, including two of the three best farmland soils in the county (Myersville and Fauquier loams). Because the proposed compressor station is an industrial facility, commenters stated that it would be in clear contradiction to the Maryland and Frederick County initiatives for these programs.

Based on mapping prepared by the Frederick County Division of Planning, the Myersville facilities are located within a Priority Preservation Area, within a Rural Legacy Area Boundary, and are adjacent to Installment Purchase Program/ County Easements. NRCS mapping identifies prime farmland soils at the Myersville Compressor Station site and along the Suction/Discharge pipelines. Approximately 2.03 acres of prime farmland soils (Myersville series) would be permanently removed from agricultural production for operations of the Myersville Compressor Station. However, these soils are not currently used for agriculture production. Of the proposed 21-acre site, only about 7.7 acres would be permanently developed and the remainder of site would be left in a natural state consisting of open land and woodlands. This would be consistent with the preservation of rural conditions.

Prime farmland soils mapped by the NRCS along the proposed Myersville Suction/ Discharge pipelines include the Highfield, Mt. Zion, and Myersville soil series. Approximately 2,092 linear feet of prime farmland soils, crossed by the Suction/Discharge pipelines, would be temporarily impacted during construction. Temporary soil impacts would be mitigated through topsoil segregation and best management practices (BMPs) included in the Plan and Procedures. Following construction, these soils would be returned to agriculture use and livestock production.

In summary, permanent impacts to prime farmland soils in Maryland would be limited to an area of approximately 2.03 acres of soils not currently used for agricultural production, and temporary impacts would be mitigated through the implementation of best management practices.

## **2.0 WATER RESOURCES**

### **2.1 Groundwater Resources**

There are no designated sole source aquifers underlying any of the Project areas in Maryland, Ohio, West Virginia or Pennsylvania and none of the Project facilities are located adjacent to wellhead protection areas. One domestic and two test wells are located at the proposed Myersville Compressor Station site. One domestic well is located at the proposed Mullett Compressor Station site and approximately 125 feet northeast of the Mullett Suction/Discharge pipeline at Station 21+19 and one livestock well (spring) is located approximately 50 feet north of the Mullett Suction/Discharge pipelines at Station No. 18+00. One domestic well is located at the existing Sabinsville Compressor Station to serve station needs.

Accidental spills of fuels, lubricants, and other petroleum products could occur during construction activities. However, DTI has prepared a SPCC Plan that includes spill avoidance measures as well as measures to contain and cleanup materials in the event of a release.

## **2.2 Surface Water**

Thirteen freshwater, surface waterbodies would be affected by construction of the Allegheny Storage Project. This includes four ephemeral, two intermittent, and one perennial waterbody associated with the Myersville facilities in Maryland; one intermittent waterbody in Ohio along the Mullett Suction/Discharge pipeline; and four intermittent and one perennial waterbody in Pennsylvania along the Sabinsville West Replacement pipeline. In Maryland, three ephemeral and one intermittent waterbody would be crossed by access roads and would be culverted.

A number of commenters in Frederick County, Maryland raised concerns regarding potential contamination of groundwater and surface water supplies from spills or contamination from construction or operation of the proposed Myersville Compressor Station. During construction, DTI would implement BMPs included in the Plan and Procedures and the MDE's Construction Stormwater Permit requirements to prevent construction-related spills and materials from reaching the ground, and, ultimately, to surface in groundwater. After construction is complete and before the facility becomes operational, DTI will prepare and implement a station-specific SPCC plan, designed to comply with U.S. Environmental Protection Agency (EPA) requirements under the Clean Water Act, and to prevent stored or used petroleum products from being released or spilled and reaching surface or groundwater during station operation.

DTI has incorporated secondary containment with a sump system within the compressor building, as well as secondary containment for the drum storage building and two above-ground storage tanks (wastewater and gas liquids) into the station design. The planned compressor station would include a gas filter-separator to remove condensed water and/or hydrocarbons from the natural gas prior to compression. The liquids separated by this vessel would be pumped to a small hydrocarbon storage tank that includes secondary containment for storage as well as for the transfer of the fluids to a tanker truck for off-site disposal. The only other primary chemicals used at the station would consist of lubricating oil and coolants and the potential for spills of these chemicals would be minimized by implementation of the station-specific SPCC Plan.

Another concern raised was impacts on scarce water supplies. No process water would be used at the station, only water for sanitary purposes, so there would be no large withdrawals from groundwater.

### Hydrostatic Testing

DTI would hydrostatically test all pipelines in accordance with DOT pipeline safety regulations. Hydrostatic testing involves filling the pipeline facilities with water and pressurizing the pipeline facilities above their maximum allowable operating pressure. The pressure in the facilities is then monitored for several hours. If a drop in pressure is recorded, then the pipeline facilities would be examined to determine if any leaks have occurred and necessary repairs would be made. DTI would obtain a total of approximately 479,530 gallons of hydrostatic test water

from public water supplies or nearby surface water sources for its Project facilities as listed in Table 4.

<b>Table 4: Hydrostatic Withdrawal and Discharge Locations</b>	
<b>Facility</b>	<b>Approximate Volume (gallons)</b>
<b>Compressor and Storage Stations</b>	
Myersville Compressor Station	22,000
Mullett Compressor Station	18,000
Wolf Run Compressor Station	900
Sabinsville Storage Station	9,000
<b>M&amp;R Stations</b>	
Tuscarora M&R	400
Mullett 1 M&R	230
<b>Pipelines</b>	
Myersville Suction/Discharge pipelines	216,000
Mullett Suction/Discharge pipelines	36,000
Sabinsville Replacement pipelines	177,000
<b>Total</b>	<b>479,530</b>

In accordance with our Procedures, measures would be implemented to avoid fish entrainment and disturbance of sediments such as screening the intake and employing velocity controls. DTI would discharge hydrostatic test water in a well vegetated upland area in accordance with our Procedures, or transport it to an appropriate disposal facility.

### **2.3 Wetlands**

No wetlands would be impacted at the existing Tuscarora and Mullett 1 M&R stations or the Wolf Run Compressor Station. Based on field surveys and project design, wetlands would be affected along the Myersville Suction/Discharge pipelines (0.07 acre), Mullett Suction/Discharge pipelines (0.03 acre), Sabinsville West Replacement pipeline (0.85), and Sabinsville East Replacement pipeline (0.51 acre).

In accordance with the Procedures, no refueling or storage of hazardous materials would be permitted within 100 feet of wetlands and specialized construction techniques would be used to minimize impacts from compaction or rutting of the wetland.

The Procedures require that the construction right-of-way in wetlands be limited to 75 feet or less unless prior written approval is obtained from the FERC. DTI has requested a variance from this requirement and approval to use additional temporary work space for wetland crossings along the Myersville suction/discharge pipelines and Sabinsville Replacement due to the need to install two pipelines (a suction and a discharge pipeline located approximately 15 feet apart) within the same construction right-of-way at Myersville and the need to remove and replace the pipeline

at Sabinsville. Specifically, DTI requested an additional 15 feet of temporary construction right-of-way on the Myersville Suction/Discharge pipeline (affecting an additional 0.03 acre of wetland) and an additional 30 feet for two wetland crossings on the Sabinsville Replacement pipeline (affecting a total of 0.38 acre of wetlands). No forested wetlands would be affected.

### **3.0 VEGETATION AND WILDLIFE**

#### **3.1 Vegetation**

DTI's proposed Myersville and Mullett compressor stations would affect 12.9 and 10.5 acres of vegetation, respectively. The Myersville Compressor Station would affect 8.2 acres of agricultural, pasture, open land and 4.7 acres of forest/woodland while the Mullett Compressor Station would affect 10.5 acres of agricultural, pasture, open land. The remaining Allegheny Storage Project facilities would affect 42.7 acres of agricultural, pasture, open land and 4.7 acres of forest/woodland. Agricultural, pasture, open land consists of various species of grasses and forbes and the forest/woodlands consist of species such as oaks, hickories, red maple, beech, tulip poplar, white ash, and birch.

The existing Tuscarora M&R Station is located in an open field that the Maryland Department of Natural Resources (MDNR) identifies as sensitive species area; however, because all construction activities would take place within the existing, fenced station site, no impacts to this sensitive species area are anticipated. No other sensitive vegetation types or habitats of concern would be impacted by the Allegheny Storage Project. After construction is complete, DTI would revegetate all temporary construction areas in accordance with our Plan. Therefore, the Project would not result in any significant impacts on vegetation.

#### **3.2 Wildlife**

The Project areas consist of agricultural, pasture, open land; forest/woodland, and developed commercial land. Common wildlife species inhabiting these areas include white-tailed deer, eastern gray squirrel, eastern fox squirrel, eastern cottontail, red fox, common gray fox, eastern coyote, common raccoon, Virginia opossum, long-tailed weasel, woodchuck, wild turkey, ruffed grouse, northern bobwhite, mourning dove, warblers, sparrows, smooth green snake, eastern fence lizard, and eastern box turtle. There are no unique or significant habitat types found within areas affected by the Project.

Potential impacts on wildlife include habitat loss and construction-related ground disturbance and noise. Some less mobile individuals could be inadvertently injured or killed by construction equipment. However, more mobile species such as birds and mammals would relocate to other suitable nearby habitat once construction activities begin. The temporary disturbance of local habitat would not have a population-level impact on wildlife because the amount of habitat disturbed represents a small portion of the available habitat throughout the Project area.

Migratory birds are species that nest in the United States and Canada during the summer and then migrate to and from the tropical regions of Mexico, Central and South America, and the Caribbean for the non-breeding season. Migratory birds are protected under the Migratory Bird Treaty Act ([MBTA]-16 U.S. Code 703-711) and Bald and Golden Eagles are additionally

protected under the Bald and Golden Eagle Act (16 U.S. Code 668-668d). The MBTA, as amended, prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Executive Order 13186 (66 FR 3853) was enacted in 2001 to, among other things; ensure that environmental analyses of federal actions evaluate the impacts of actions on migratory birds. Executive Order 13186 directs federal agencies to identify where unintentional take is likely to have a measurable negative effect on migratory bird populations and avoid or minimize adverse impacts on migratory birds through enhanced collaboration with the U.S. Fish and Wildlife Service (FWS). The environmental analysis should further emphasize species of concern, priority habitats, key risk factors, and that particular focus should be given to population-level impacts.

Construction activities would occur during the nesting season for migratory birds (generally April 1- August 31). Therefore, direct and indirect impacts on non-sensitive migratory birds could result from construction. Examples of potential impacts include habitat loss, disruption of foraging adults, and abandonment or destruction of active nests. The proposed Project may have a short-term impact on migratory species of birds that may nest in or near the construction areas. Clearing of trees during construction activities could result in direct impacts on tree-nesting birds. However, the proposed construction areas represent a small portion of the available nesting habitat in the vicinity and no species of special concern were identified in the Project area.

### **3.3 Special Status Species**

DTI consulted with the FWS Annapolis Field Office, Maryland; Columbus Field Office, Ohio; Elkins Field Office, West Virginia; and State College Field Office, Pennsylvania and the MDNR, Ohio Department of Natural Resources (ODNR), Pennsylvania Game Commission (PGC), Pennsylvania Fish and Boat Commission (PFBC), and Pennsylvania Department of Conservation and Natural Resources (PDCNR) regarding threatened and endangered species in the Project area.

#### Fredrick County, Maryland

The FWS Annapolis Field Office indicated that, except for occasional transient individuals, no federally proposed or listed endangered or threatened species are known to exist within the and, therefore, no further consultation with the FWS is required (FWS, 2011a, 2011b).

#### Monroe County, Ohio

The FWS Columbus Field Office reported that that there are no federal wildlife refuges, wilderness areas, or critical habitat in the vicinity of the Ohio Project facilities; however, the Mullett facilities lie within the ranges of the Indiana bat, eastern hellbender and two freshwater mussels that are currently proposed for listing as federally endangered, sheepsnose mussel and snuffbox mussel (FWS, 2011c).

DTI is currently evaluating the area affected by the Mullett Compressor Station and Suction/Discharge pipelines to determine if potential habitat for the Indiana bat is present. The Mullett Suction/Discharge pipelines would cross one headwater intermittent stream between the Mullett Compressor Station and the existing Mullett 1 M&R Station; however, this stream does

not meet the habitat criteria for the eastern hellbender and, as such, is unlikely to support this species. The FWS reported that due to the type of project, its location, and on-site habitat, the sheepnose mussel and snuffbox mussel would not be expected and no impacts to these species are expected.

#### Lewis County, West Virginia

The FWS Elkins Field Office indicated that suitable habitat for the Indiana bat is present in the Project action area; however, because there would be no tree clearing impact to this species would not occur. Therefore, no Biological Assessment or further consultation with the FWS is required (FWS, 2011d, 2011e).

#### Tioga County, Pennsylvania

Based on DTI's review of the Pennsylvania Natural Diversity Inventory (PNDI), no known locations of federal or state threatened or endangered species, or designated critical habitats were identified. The PDCNR has concurred with that conclusion (PDCNR, 2011). To date, the FWS, PBC, and PGC have not yet provided comments.

### **4.0 CULTURAL RESOURCES**

DTI conducted cultural resources surveys for the proposed Myersville Compressor Station, Myersville Suction/Discharge pipelines, and the Myersville Valve Site and access road in Frederick County, Maryland; the proposed Mullett Compressor Station and Mullett Suction/Discharge pipelines in Monroe County, Ohio; and the Sabinsville West and Replacement pipelines in Tioga County, Pennsylvania. No surveys were conducted at the existing Tuscarora and Mullett 1 M&R stations, Wolf Run Compressor Station, or Sabinsville Storage Station because all modifications would take place within areas previously disturbed for construction and operation of these existing facilities.

The resulting reports were provided to the FERC and the Maryland, Ohio, and Pennsylvania State Historic Preservation Offices (SHPO), respectively. DTI is awaiting responses from the SHPO's.

DTI contacted the Absentee Shawnee Tribe of Indians of Oklahoma; Delaware Tribe of Indians, Oklahoma; Delaware Nation, Oklahoma; Eastern Shawnee Tribe of Oklahoma; Seneca-Cayuga Tribe of Oklahoma; Seneca Nation of Indians; Shawnee Tribe; and Tonawanda Band of Seneca Indians of New York. No responses have been received to date.

### **5.0 LAND USE, RECREATION, AND VISUAL RESOURCES**

#### **5.1 Land Use**

Construction of the Allegheny Storage Project would disturb about 114.2 acres of land, of which, 24.2 acres of land would be permanently affected by the facilities. The remaining 90.0 acres would revert to its previous use following restoration. The Project would affect agricultural, pasture, open land; forest/woodland, and developed commercial land (see Table 5). The Project would result in the conversion of 4.5 acres of forest/woodlands and 19.7 acres of agricultural, pasture, open land to industrial land use. .

Table 5: Land Use Affected by DTI's Allegheny Storage Project							
County, State, Facility	Land Affected by Construction (acres) <u>a/</u>			Land Affected by Operation (acres) <u>a/</u>			Notes
	Open	Forest	Commercial	Open	Forest	Commercial	
<b>Fredrick County, Maryland</b>							
Myersville Compressor Station	8.2	4.7	0	4.4	3.3	0	7.7 acres to be maintained for operation.
Myersville Suction/Discharge pipelines	5.6	0.9	0	2.7	0.7	0	3.4 acres to be maintained as permanent easement.
Myersville Valve Site	1.5	0	0	1.5	0	0	1.5 acres to be maintained for operation.
Myersville Valve Access Road	0.7	0.2	0	0.7	0.2	0	0.9 acre to be maintained for operation.
Tuscarora M&R Station	0	0	1.0	0	0	0	1.0 acre currently maintained for existing operations.
<b>Monroe County, Ohio</b>							
Mullett Compressor Station	10.5	0	0	8.2	0	0	8.2 acres to be maintained for operation.
Mullett Suction/Discharge pipelines	3.6	0.4	0.5	2.2	0.3	0	2.5 acres to be maintained as permanent easement.
Mullett 1 M&R Station	0	0	0.6	0	0	0	0.1 acre currently maintained for existing operations.
<b>Lewis County, West Virginia</b>							
Wolf Run Compressor Station	0	0	4.6	0	0	0	4.6 acres currently maintained for operations.
<b>Tioga County, Pennsylvania</b>							
Sabinsville Storage Station	0	0	25.3	0	0	0	25.3 acres currently maintained for existing operations.
Sabinsville Replacement pipelines	31.3	3.2	1.2	0	0	0	25.4 acres currently maintained for operations.
Access Roads	0	0	3.8	0	0	0	
Pipe/Contractor Yard <u>b/</u>	0	0	6.4	0	0	0	
<b>Total</b>	<b>61/4</b>	<b>9.4</b>	<b>43.4</b>	<b>19.7</b>	<b>4.5</b>	<b>0</b>	
<u>a/</u> The totals shown in this table may not equal the sum of addends due to rounding.							
<u>b/</u> DTI is developing this pipe/contractor yard is being developed as part of a concurrent project that was filed with the Commission on November 21, 2011 under Docket CP12-20 (Sabinsville to Morrisville Project). DTI would use this yard for the Allegheny Storage Project.							

DTI would use existing public and private roads to access the Project workspaces. However, one new permanent access road would be built from Mt. Tabor Road to the proposed Myersville Valve Site. This road would be approximately 0.2 mile long, 20 feet wide, and would be maintained within a 30-foot-wide permanent easement. The access road would be located

along the edge of an agricultural field and would involve clearing of approximately 0.2 acre of trees.

We received a number of comments regarding the zoning at the proposed Myersville Compressor Station site in Frederick County, Maryland. The proposed site, which is adjacent to Interstate 70 (I-70), is currently zoned Commercial with a Highway Employment Overlay. Commenters noted the station (e.g., an industrial facility) would not create any highway-related commerce and, as such, is not a compatible use. DTI's stated that its understanding of the Town of Myersville overlay zoning districts, as explained by local officials, is that these types of zoning districts may be superimposed on other zoning districts to permit uses otherwise disallowed in a particular district or to impose supplemental restrictions on uses in the district. The Highway Employment Overlay district may only be superimposed in the General Commercial zoning district. Therefore, the proposed use is allowed, but must meet requirements and special conditions consistent with the Town of Myersville Comprehensive Plan. It is DTI's intent to fully comply with all the requirements of the Town of Myersville and Frederick County as necessary to receive local permits and construction authorization for the planned facility.

There are no residences within 50 feet of any construction work areas, except for one residence on the Sabinsville East Replacement pipeline on the west side of S Road at approximate Station 34+00. It is approximately 15 feet from the southern edge of the construction right-of-way. However, DTI would implement its residential mitigation measures to minimize impacts on this residence during construction. There are no known planned residential or commercial developments in the vicinity of the Project facilities.

The construction right-of-way for the Sabinsville West Replacement pipeline would be along southern edge of commercial facility property at approximate Station 10+00. DTI would work with the owner to minimize disruption to commercial operations.

To the extent feasible, existing public and private road crossings in the Project areas will be used as the primary means of accessing the aboveground facilities and pipeline rights-of-way. Existing station access roads will be used for access to the Tuscarora and Mullett 1 M&R Stations, Wolf Run Compressor Station, and Sabinsville Storage Station. Table 8.2-4 lists all access roads that would be used for construction. Acreage impacts are not tabulated separately for access roads within the property boundaries for the new compressor station facilities at Myersville and Mullett as these impacts are included within the station operations footprint. Not included are acreage impacts for access roads to the existing stations as these are currently used on a regular basis for station operations.

Table 6: Access Roads						
Access Road #	Existing	Use (Permanent / Temporary)	Existing Road Surface	Upgrades Required	Approximate Length (feet)	Acres Affected
<b>Frederick County, Maryland</b>						
Myersville Compressor Station	Yes	Permanent	Dirt / gravel	Yes	826	<u>a/</u>
Myersville Valve Site	No	Permanent	--	New	1,293	0.89
Tuscarora M&R Station	Yes	Permanent	Gravel	No	65	<u>b/</u>
<b>Monroe County, Ohio</b>						
Mullett Compressor Station	Yes	Permanent	Dirt / gravel	Possibly	350	<u>a/</u>
Mullett 1 M&R Station	Yes	Permanent	Gravel	No	1,272	<u>b/</u>
<b>Lewis County, West Virginia</b>						
Wolf Run Compressor Station	Yes	Permanent	Gravel	No	1,695	<u>b/</u>
<b>Tioga County, Pennsylvania</b>						
Sabinsville Storage Station	Yes	Permanent	Paved	No	0	<u>b/</u>
Sabinsville Replacement						
TAR-1	Yes	Temporary	Gravel	No	882	0.4
TAR-2	Yes	Temporary	Gravel	No	1,019	0.47
TAR-3	Yes	Temporary	Gravel	No	2,753	1.26
TAR-4	Yes	Temporary	Gravel	No	993	0.46
TAR-5	Yes	Temporary	Gravel	No	170	0.08
TAR-6	Yes	Temporary	Gravel	No	547	0.25
TAR-7	Yes	Temporary	Gravel	No	840	0.39
TAR-8	Yes	Temporary	Gravel	No	719	0.33
TAR-9	Yes	Temporary	Gravel	No	417	0.19
<u>a/</u> Acreage impacts included within compressor station operations footprint.						
<u>b/</u> Acreage impacts not included as these roads are used regularly for station operations.						

During construction, DTI anticipates employing a work force of approximately 75 workers at each of the proposed Myersville and Mullett compressor station sites, 30 workers at the existing Wolf Run Compressor Station, and 35 workers at the existing Sabinsville Storage Station. Upgrades at the existing Tuscarora and Mullett 1 M&R Stations would require approximately 10 workers each. A total of 125 workers would be required at the Myersville Suction/Discharge pipelines (40 workers), Mullett Suction/Discharge pipelines (35 workers), and Sabinsville Replacement pipelines (50 workers). Therefore, while construction would increase the amount of traffic on local roads within the Project areas, only minor, temporary increases in traffic would be expected, and traffic levels would return to normal levels once construction is complete.

DTI would employ one to two full-time workers for operation at each of the new compressor stations.

## **5.2 Recreational Resources and Special Interest Areas**

The closest recreational areas to the Project area include the: Chesapeake and Ohio Canal National Historical Park (Park) located approximately 0.25 mile south of the Tuscarora M&R Station in Frederick County, Maryland; West Virginia Department of Natural Resource's Smoke Camp Wildlife Management Area (WMA) located approximately 0.4 miles north of the Wolf Run Compressor Station in Lewis County, West Virginia. Because work associated with the existing Tuscarora M&R Station and Wolf Run Compressor Station would occur within existing, DTI fenced property, there would be no effects on the Park or WMA.

We received a number of comments regarding the proposed Myersville Compressor Station and its potential impact on the Maryland Rural Legacy Program. The Maryland Rural Legacy Program Area was created in 1997 to protect large, contiguous tracts of Maryland's cultural and natural resource lands through grants made to local applicants. The proposed Myersville facilities would lie within the boundaries of the Mid-Maryland Frederick Rural Legacy Area that is bordered on the east by the South Mountain and includes an area extending south from U.S Route 40, north of Myersville, to Interstate 340 north of the Potomac River. The area is built on protecting two contiguous blocks of preserved land near Myersville and the historic village of Burkittsville, and includes Frederick County's most productive agricultural lands, such as dairy operations and livestock farms, to assure their protection and promotion of the resource based economy of the area. The proposed Myersville Compressor Station site is zoned as general commercial, is not included as an easement or conservation area in the program, is not currently in use for dairy operations or livestock farms, and contains no cultural or historic resources or significant natural resources. Therefore, while the site lies within the boundaries of Mid-Maryland Frederick Rural Legacy Area, it is not a high priority tract for inclusion within this program. Because the station will be screened from public view, it should not significantly alter the character of the landscape.

## **5.3 Visual Resources**

The aboveground facilities (compressor station buildings, fencing, and aboveground piping) associated with the Allegheny Storage Project could result in a permanent change in the visual character within affected areas and result in long-term impacts on visual resources. The magnitude of these impacts depends on factors such as the existing landscape, the remoteness of the location, and the number of viewpoints from which the facility could be seen.

Construction would result in temporary visual impacts including increased numbers of company and contractor personnel, presence/storage of additional equipment and materials, removal of vegetative and woody cover, and disturbance of soils. These impacts would generally cease following the completion of construction and successful restoration.

We received a number of comments regarding potential visual impacts associated with development of the Myersville Compressor Station. As proposed, the compressor station is located on an undeveloped property along the south/east bound lane of I-70, just west of the I-70/Route 17 interchange. The site consists of a mix of open land and forested land use types. Existing land uses within 0.25 mile of the Project site include active agricultural operations (livestock pasture and cropland), isolated residences, a municipal property (e.g., the Myersville waste water treatment plant), and businesses located south and southeast of the Project site along

Milt Summers Road and Myersville Road (Route 17) including gas stations, a heavy equipment and tractor business, fast food restaurants, a bank, and medical and laboratory buildings.

DTI plans to develop approximately 7.7 acres within the approximate 21-acre property and would maintain existing trees and woodlands along the property boundaries. DTI completed visual simulations of the proposed Myersville Compressor Station to assess potential visual impacts from viewpoints along I-70 and adjacent roadways and identified no areas where the station would be visible. DTI proposes to complete a second visual analysis during winter 2012 during leaf-off conditions. If, following a review of the results of the planned winter visual analysis, it is determined that the natural vegetative screening is not adequate to screen the facility during winter conditions, DTI would develop a supplemental screening plan to minimize visual impacts from public viewpoints.

We also received several comments regarding the proposed Myersville Compressor Station and its potential to degrade views from nearby parks, including the Washington Monument State Park (located approximately 4.5 miles west of the station), Gambrill State Park (located approximately 7.5 miles southeast of the station), Greenbriar State Park and South Mountain State Park (located approximately 7 and 8 miles northwest of the station, respectively), Gathland State Park (located approximately 12 miles southwest of the station). In addition, the nearest point on the Appalachian Trail would be approximately 4.5 miles west of the station. The proposed compressor station facilities would not be visible at these distances.

The Tuscarora M&R Station in Frederick County, Maryland is located approximately 0.25 mile north of the Chesapeake and Ohio Canal National Historical Park, which is located along the Potomac River. Since modifications to the existing Tuscarora M&R Station will occur within the fenced property, there will be no effects on this historical park.

The proposed Mullett Compressor Station would be located on a ridge top in an area that is dominated by agricultural and forest land uses, scattered residences and farm buildings. There are several industrial facilities in the local viewshed of the compressor station site including the existing Mullett 1 and 2 M&R Stations to the west, the Rockies Express Pipeline LLC (REX) facilities that are adjacent to the Mullett M&R stations, and stacks from a nearby power plant to the east. The construction of the proposed compressor station would be a noticeable addition to the local viewshed but is not anticipated to result in a significant degradation of the overall aesthetic quality of the area.

Modifications at the existing Wolf Run Compressor Station would not significantly alter the station facilities. Therefore, there would be no visual impacts at this location. The proposed aboveground facilities at the existing Sabinsville Storage Station would be installed within the existing facility fence line and would not substantially change the current viewshed.

The Myersville and Mullett Suction/Discharge pipelines and the Sabinsville Replacement pipelines would be located entirely underground and would not result in significant changes to the existing visual environment.

## 6.0 AIR QUALITY AND NOISE

### 6.1 Air Quality

Air quality can be affected by both construction and operation of the proposed facilities. The EPA has established National Ambient Air Quality Standards (NAAQS) for criteria pollutants for the purpose of protecting human health (primary standards) and public welfare (secondary standards). The EPA set NAAQS for the following air contaminants designated as “criteria pollutants”: nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>), sulfur dioxide (SO<sub>2</sub>), lead, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM<sub>2.5</sub>). These NAAQS reflect the relationship between pollutant concentrations and health and welfare effects, and are supported by sound scientific evidence.

The NAAQS apply in all Project areas. While states and municipalities are free to adopt standards that are more stringent than the NAAQS, Maryland, Ohio, West Virginia, and Pennsylvania have chosen to adopt all of the NAAQS and have not implemented more stringent ambient air quality standards for criteria pollutants. The Maryland Department of the Environment (MDE) however, has implemented other ambient air quality standards in addition to the NAAQS adopted for criteria pollutants. Some states implement and enforce the NAAQS through State Implementation Plans (SIP), which must be approved by the EPA.

Air quality control regions (AQCR) are areas established for air quality planning purposes in which SIPs describe how ambient air quality standards would be achieved and maintained. AQCRs were established by the EPA and local agencies, in accordance with section 107 of the Clean Air Act of 1970 and its amendments (CAA), as a means to implement the CAA and comply with the NAAQS through SIPs. The CAA is the basic federal statute governing air pollution. AQCRs are intra- and interstate regions such as large metropolitan areas where improvement of the air quality in one portion of the AQCR requires emission reductions throughout the AQCR. Each AQCR, or portion thereof, is designated based on compliance with the NAAQS. AQCR designations fall under three categories as follows: “attainment” (areas in compliance with the NAAQS), “nonattainment” (areas not in compliance with the NAAQS), or “unclassifiable/attainment” (areas that cannot be classified on the basis of available information as meeting or not meeting the NAAQS). Areas in nonattainment with the NAAQS for any criteria pollutant are held to more restrictive air emissions limits when determining whether the facility is a major source under federal programs.

The discussion below focuses on the stations with air emissions impacts (e.g., the new Myersville and Mullett Compressor Stations, and the existing Wolf Run Compressor Station).

The proposed Myersville Compressor Station is located in the Washington DC / Maryland / Virginia region for ozone and the PM<sub>2.5</sub> annual standard, but is also part of AQCR 112, Central Maryland Intrastate, for CO and the PM<sub>2.5</sub> 24-hour standard. The proposed new Mullett and existing Wolf Run Compressor Stations are located in AQCRs defined by their respective counties; Monroe County, Ohio and Lewis County, West Virginia.

Maryland is located within the Northeast Ozone Transport Region (OTR). Additionally, the location for the Myersville Compressor Station is located in a moderate nonattainment area for

ozone and PM<sub>2.5</sub>. An OTR is a region where the transfer of air pollutants from one or more states contributes significantly to a violation of the NAAQS in one or more other states.<sup>2</sup> O<sub>3</sub> forms when there is a reaction between nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOC); as a result, O<sub>3</sub> formation cannot be directly controlled. Limiting NO<sub>x</sub> and VOC emissions would result in a lower potential for O<sub>3</sub> formation. Pipeline facilities in nonattainment areas are held to more restrictive air permitting standards.

### Air Quality Construction Impacts and Mitigation

Construction at the compressor stations would take approximately 6 months at each facility. Air quality impacts associated with construction would result from mobile source emissions from fossil-fueled construction equipment and fugitive dust. The earth moving and other construction equipment would be powered by diesel or gasoline engines that emit a number of pollutants including NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. Fuel consumption and combustion-related emissions during construction would depend on the type of construction activity and terrain. Estimates of the potential combustion emissions from construction equipment for use of nonroad engines and on-road construction activities are detailed in Table 7. Emissions are shown in tons per year (tpy).

<b>Table 7: Estimated Construction Air Emissions (tpy)</b>						
<b>Compressor Station, State</b>	<b>NO<sub>x</sub></b>	<b>VOC</b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub></b>	<b>PM<sub>2.5</sub></b>
<b>Estimate of Emission from Construction for Non-Road Engines</b>						
Myersville, Maryland	5.97	0.50	1.60	0.18	0.41	0.40
Mullett, Ohio	5.97	0.50	1.60	0.18	0.41	0.40
Wolf Run Station, West Virginia	1.49	0.13	0.40	0.04	0.103	0.100
<b>Estimate of Emission from Construction for On-Road Vehicles</b>						
Myersville, Maryland	0.37	0.462	7.72	0.005	0.004	0.003
Mullett, Ohio	0.37	0.462	7.72	0.005	0.004	0.003
Wolf Run Station, West Virginia	0.09	0.114	1.90	0.0013	0.0009	0.0008
<b>Total</b>	<b>14.26</b>	<b>2.168</b>	<b>20.94</b>	<b>0.4113</b>	<b>0.9319</b>	<b>0.9068</b>

Construction activities including land clearing, grading, excavation, and vehicle traffic on paved and unpaved would also generate fugitive dust and impact air quality in the vicinity of the construction sites. The amount of fugitive dust depends greatly on the type of material being moved, its moisture content, and the wind speed. Estimates of the fugitive dust emissions from construction of the proposed projects are detailed in Table 8.

<sup>2</sup> Title 42 of the United States Code, chapter 85, part D, subpart 1, section 7506(a).

<b>Table 8: Fugitive Dust Estimate from Construction</b>			
<b>Compressor Station, State</b>	<b>Duration (months)</b>	<b>PM<sub>10</sub> (tons) <u>b/</u></b>	<b>PM<sub>2.5</sub> (tons) <u>g/</u></b>
Myersville, Maryland	8	17.6	1.76
Mullett, Ohio	8	17.6	1.76
Wolf Run, West Virginia	4	0.88	0.088
<p><u>a/</u> The PM<sub>10</sub> emission factor used for estimating geologic dust emissions from construction activities is 0.11 tons PM<sub>10</sub>/acre-month of activity. Western area Regional Partnership (WARP) Fugitive Dust Handbook, Chapter 3, "Construction and Demolition"</p> <p><u>b/</u> The PM<sub>2.5</sub>/PM<sub>10</sub> ratio for fugitive dust from construction and demolition activities is 0.1 based on the analysis conducted by MRI on behalf of WRAP (MRI, 2006 Background Document for Revisions to Fine Fraction Ratios Used for AP-42 Fugitive Emission Factors, prepared for the WRAP by Midwest Research Institute, Project No. 110397, February 1.)</p> <p><u>Note:</u> The construction emission factor is assumed to include the effects of routine dust suppression measures such as watering or other typical dust suppression chemicals.</p>			

In order to minimize fugitive dust emissions, DTI committed to implementing mitigation measures such as: spraying water to dampen the surfaces of dry work areas and/or by applying calcium chloride or other dust suppressants, as needed

Emissions from construction equipment exhaust would be temporary in nature. Once construction activities in the project area are completed, fugitive dust and construction vehicle/equipment emissions associated with the facilities would subside.

#### Air Quality Operation Impacts and Mitigation

Long-term air emissions would result from operation of the proposed units at the Myersville, Mullett, and Wolf Run compressor stations.

The proposed Myersville Compressor Station would include one Solar Mars 100 natural gas-fired turbine compressor unit with a rated output of 16,000 hp and ancillary systems and equipment including one 3.0 million British thermal units per hour (MMBtu/hr) gas-fired heater and one 440 hp auxiliary generator. The new compressor unit would employ SoLoNO<sub>x</sub> combustion technology to limit NO<sub>x</sub> emissions and would be fitted with an oxidation catalyst system to control CO and VOC emissions.

The proposed Mullett Compressor Station would include a Caterpillar G3612 reciprocating engine/compressor package with a rated output of 3,550 hp and ancillary systems, 3.0 MMBtu/hr gas-fired heater, and one 585 hp auxiliary generator. The new engine compressor would employ combustion technology to limit emissions of NO<sub>x</sub> and would be fitted with an oxidation catalyst system to control CO emissions.

DTI currently operates the Wolf Run Compressor Station that includes four Caterpillar G3606Le natural gas fired engines, nine Capstone C65 natural gas fired microturbines, a natural gas fired boiler and reboiler, and a glycol dehydration unit rated at 110 million standard cubic feet per day (mmcf/d) with an incinerator system. DTI proposes to add 110 mmcf/d of additional

glycol dehydration at this site and emissions would be controlled through use of an incinerator system.

Table 9 provides a summary of the potential-to-emit (PTE) emissions of criteria pollutants and hazardous air pollutants (HAP) for each compressor station. The PTE emissions represent the maximum capacity of a stationary source to emit criteria pollutants, although actual operational emissions may be less.

<b>Table 9: Total Operational Emission Summary for DTI's Allegheny Storage Project (tpy)</b>							
<b>Source</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>	<b>SO<sub>2</sub></b>	<b>PM<sub>10</sub> / PM<sub>2.5</sub></b>	<b>HAPs <u>a/</u></b>	<b>CO<sub>2e</sub> <u>b/</u></b>
Myersville Compressor Station	23.53	5.32	1.14	0.25	2.83	0.93	53,892
Mullett Compressor Station	24.48	9.13	24.26	0.07	1.13	2.59	16,461
Wolf Run Compressor Station	52.48	23.07	87.14	0.14	0.46	---	---
<u>a/</u> Hazardous air pollutants.							
<u>b/</u> Estimate of greenhouse gas emissions.							

We received a number of comments regarding air emission impacts associated with the proposed Myersville Compressor Station, including emissions of VOCs, HAPs, greenhouse gases (GHG), and NO<sub>x</sub>. The proposed Myersville Compressor Station would combust clean-burning natural gas in a highly-efficient combustion turbine equipped with state-of-the-art combustion technology to minimize production of VOCs, and would be equipped with an oxidation catalyst to destroy the majority of the VOCs before they exit the stack. The combustion turbine is equipped with a tall stack to assure that pollutants disperse rapidly and thoroughly in the air. Unlike VOCs that can accumulate indoors, resulting in elevated concentrations, VOCs released outdoors from a tall stack disperse rapidly and break down in the atmosphere.

Commenters were also concerned about the release of HAPs and potential health impacts. The oxidation catalyst for the proposed Myersville combustion turbine would control emissions of HAPs, including carcinogens. As a result, there would be a lower emission rate per unit of fuel combusted for the station than for typical gas-burning facilities, such as furnaces and boilers. Under standards developed by the EPA and the MDE to protect the public, the proposed Myersville Compressor Station would be classified as a minor source of HAPs.

The proposed Myersville Compressor Station would burn natural gas, which has the lowest GHG emissions per unit of energy of any fossil fuel. Based on annual fuel consumption for a maximum permit limit equivalent to 6,000 hours per year under full operation, the station has the potential to emit 47,409 tpy of CO<sub>2e</sub> and would be classified as a minor source of GHG under state and federal rules.

Regarding ozone, states must prepare and maintain State Implementation Plans (SIP) that define the measures to achieve compliance with the federal air quality standards. EPA reviews and approves SIPs. Since Frederick County is included in the ozone SIP for the Washington DC / Maryland / Virginia Region, the MDE may not issue an air permit that conflicts with the SIP.

Emissions contributing to ozone levels for the proposed compressor station are below the standards the levels that would conflict with the SIP.

### Federal and State Air Quality Regulations

During operation, the compressor station facilities would emit quantities of regulated air pollutants and would be subject to federal and state air quality regulations that are driven by the CAA. The federal regulations established as a result of the CAA that are potentially applicable to the projects are as follows:

- Non-attainment New Source Review/Prevention of Significant Deterioration;
- Federal Class I Area Protection;
- Title V Operating Permits;
- New Source Performance Standards;
- GHG Mandatory Reporting Rule and Tailoring Rule;
- General Conformity;
- National Emission Standards HAPs; and
- State Air Quality Regulations.

### Nonattainment New Source Review and Prevention of Significant Deterioration

New Source Review (NSR) refers to the pre-construction permitting programs under Parts C and D of the CAA that must be satisfied before construction can begin on new major sources or major modifications are made to existing major sources located in attainment or unclassified areas. This review may include a Prevention of Significant Deterioration (PSD) review. This review process is intended to prevent new air emission sources from causing existing air quality to deteriorate beyond acceptable levels as codified in the federal regulations. For sources located in non-attainment areas, the Nonattainment New Source Review (NNSR) program is implemented for the pollutants for which the area is classified as non-attainment with the NAAQS.

The PSD review regulations are intended to preserve the air quality in areas where criteria pollutant levels are below the NAAQS that major new or modified stationary sources may contribute to. The PSD regulations apply to new major sources or major modifications of existing major sources located in an attainment area. The PSD regulations (40 CFR 52.21) define a “major source” as any source type belonging to a list of named source categories that emit, or have the PTE, 100 tpy or more of any regulated criteria pollutant. A major source under PSD can also be defined as any source not on the list of named source categories with a PTE equal to or greater than 250 tpy for criteria pollutants. The PSD major source threshold for all regulated NSR pollutants except for GHG is 100 tpy for 28 specifically listed source categories. For unlisted source categories, such as natural gas pipeline compressor stations, the PSD major source threshold is 250 tpy of potential emissions of any air regulated NSR pollutant.

The State of Maryland identifies that that major threshold for NO<sub>x</sub> and VOC emissions in Frederick County is 25 tpy. For PM<sub>2.5</sub>, the pre-construction review requirements for major new sources are triggered for sources with actual or potential emissions of 100 tpy. Because Project emissions would be capped below these levels, a NNSR would not apply.

The proposed Mullett Compressor Station in Ohio is located in an attainment area for all pollutants and is not within the OTR. Therefore, the lower NNSR major source thresholds are not applicable. Because the new emissions at this compressor station are below the PSD major source thresholds, PSD permitting requirements would not be triggered.

The existing Wolf Run Compressor Station in West Virginia is located in an attainment area for all pollutants and is not within the OTR. Therefore, the lower NNSR major source thresholds are not applicable. With regard to PSD, this existing compressor station is a minor source because its potential to emit NO<sub>x</sub> is less than or equal to 250 tpy. Under West Virginia Department of Environmental Protection's (WVDEP) regulations implementing the federal NSR requirements, a proposed modification at an existing minor source is considered a major modification if it causes both a significant emissions increase and also a significant net emissions increase. The proposed emissions increases at the Wolf Run Compressor Station would be below levels that are defined as significant. Therefore, modifications at the Wolf Run Compressor Station would not be a major modification and the federally mandated major NSR permitting requirements would not apply.

#### Federal Class I Area Protection

Congress designated certain lands as Class I areas in 1977. Class I areas were designated because the air quality was considered a special feature of the area (e.g., national parks or wilderness areas). These Class I areas are given special protection under the PSD program. The PSD program establishes air pollution increment increases that are allowed by new or modified air pollution sources. If the new source is required to demonstrate compliance with the PSD program requirements and is near a Class I area, the facility is required to demonstrate compliance with the PSD Class I increments. The source is also required to notify the appropriate federal land managers for the nearby Class I areas. The nearest federal Class I Areas to the proposed compressor stations are the Dolly Sods, West Virginia and Shenandoah, Virginia Class I Areas located approximately 165 kilometers of the Myersville Compressor Station and the Otter Creek, West Virginia Class I Area located approximately 140 kilometers of the Mullett Compressor Station. Because the proposed compressor stations are more than 100 kilometers from the nearest Class I Area, DTI would not be required to demonstrate compliance with the PSD Class I increments. The existing Wolf Run Compressor Station is located 80 kilometers of the Otter Creek, West Virginia Class I Area; however, the proposed modifications at this compressor station would not be a major modification and Class I modeling would not be required.

#### Title V Operating Permit

The Title V Operating Permit Program, as described in 40 CFR 70, requires major sources of air emissions and certain affected non-major sources to obtain a federal operating permit. If a facility's PTE exceeds the criteria pollutant or HAP thresholds, the facility is considered a major source. The major source threshold level for an air emission source is 100 tpy for criteria pollutants. The major source HAP thresholds for a source are 10 tpy of any single HAP or 25 tpy of all HAPs in aggregate.

The proposed Myersville and Mullett compressor stations and the existing Wolf Run Compressor Station would have emissions below the major source thresholds for the Title V permit program and would not be required to obtain a Title V Operating Permit.

## New Source Performance Standards

New Source Performance Standards (NSPS), codified at 40 CFR 60, establish emission limits and requirements for monitoring, reporting, and record keeping for specific emission source categories. NSPS apply to new, modified, or reconstructed sources. NSPS regulations are issued for categories of sources that cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare.

Subpart KKKK, *Standards of Performance for Stationary Combustion Turbines*, would apply to the new Solar Turbine that would be installed at the proposed Myersville Compressor Station (Mars 100). Units of this capacity that fire natural gas are subject to a NO<sub>x</sub> emission limit of 25 ppmvd at 15 percent O<sub>2</sub>. These turbines are also subject to either an SO<sub>2</sub> emission limit of 0.90 pounds per megawatt-hour gross output or use fuel that would not result in SO<sub>2</sub> emissions exceeding 0.060 lb/MMBtu. The combustion of pipeline quality natural gas and the resulting emissions from these turbines would be below these emission limits.

Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*, would apply to the 440 hp auxiliary generator that would be installed at the proposed Myersville Compressor Station and the 3,550 hp compressor engine and 585 hp auxiliary generator that would be installed at the proposed Mullett Compressor Station. These auxiliary generators would be subject to NSPS notification and recordkeeping requirements, including records of notifications, maintenance, and documentation that the engines are certified to meet any applicable emissions standards. DTI would meet Subpart JJJJ requirements either by using a certified NSPS compliant engine or by meeting the additional requirements that apply to non-certified engines.

## National Emission Standards for Hazardous Air Pollutants

The EPA established National Emission Standards for Hazardous Air Pollutants (NESHAP) for specific pollutants and industries in 40 CFR Part 61. The Allegheny Storage Project does not include any of the specific sources for which NESHAP have been established in Part 61. Therefore, Part 61 NESHAP requirements would not apply to the Project.

The EPA also established NESHAP requirements in 40 CFR Part 63 for various source categories that apply to certain emission units at facilities that are major sources of HAP. Some NESHAP also apply or may apply in the future to non-major sources (area sources) of HAP. The Project involves some facilities that include units that could potentially be subject to certain Part 63 NESHAP including: Subpart HHH, *Natural Gas Transmission and Storage Facilities*; Subpart YYYY, *NESHAP for Stationary Combustion Turbines*; and Subpart ZZZZ, *NESHAP for Stationary Reciprocating Internal Combustion Engines*. The Allegheny Storage Project does not include any of the specific sources for which Subparts HHH, YYYY, or ZZZZ have been established. Therefore, these NESHAP requirements would not apply to the Project.

## Greenhouse Gases

On September 22, 2009, the EPA issued the final Mandatory Reporting of Greenhouse Gases Rule. It requires monitoring, reporting, and recordkeeping of GHG emissions from suppliers of fossil fuels and facilities that emit greater than or equal to 25,000 metric tons<sup>3</sup> of GHG per year and greater than 30 MMBtu/hr.

GHGs occur in the atmosphere both naturally and as a result of human activities, such as the burning of fossil fuels. These gases are the integral components of the atmosphere's greenhouse effect that warms the earth's surface and moderates day/night temperature variation. The primary GHGs produced by fossil fuel combustion are water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). During construction and operation of this Project, these GHGs would be emitted from non-electrical construction equipment and any compressors, line heaters, and generators. Emissions of GHGs are typically expressed in terms of CO<sub>2</sub> equivalents (CO<sub>2eq</sub>), where the potential of each gas to increase heating in the atmosphere is expressed as a multiple of the heating potential of CO<sub>2</sub>, or its global warming potential.

The EPA has also promulgated the Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule.<sup>4</sup> The first phase-in step of the tailoring rule began on January 2, 2011, and requires application of PSD or Title V requirements for GHG emissions only if the sources are already subject to PSD or Title V due to their non-GHG pollutants. A source is subject to PSD requirements under this first step if GHG emissions increase by at least 75,000 tpy CO<sub>2eq</sub> and also has a significant increase in at least one non-GHG pollutant. For Title V, only sources with a Title V permit, or new sources obtaining a Title V permit for non-GHG pollutants are required to address GHGs in phase I of the Tailoring Rule. The second phase-in began on July 1, 2011. New sources and existing sources not previously subject to Title V that emit at least 100,000 tpy CO<sub>2eq</sub> will become subject to PSD and Title V requirements. Also, sources that have the PTE of at least 100,000 tpy CO<sub>2eq</sub> and that undertake a modification that increases net emissions of GHGs by 75,000 tpy CO<sub>2eq</sub> will be subject to PSD requirements. None of the Allegheny Storage Project facilities are a PSD major source for CO or a Title V major source for NO<sub>x</sub> and CO. Because none of the proposed Project facilities would increase GHG emissions by at least 75,000 tpy; PSD permitting requirements would not apply.

## General Conformity

The General Conformity Rule, as codified in 40 CFR Part 93, Subpart B, requires a federal agency to demonstrate that every action that it undertakes, approves, permits, or supports will conform to the appropriate SIP. The State of Maryland has adopted the federal General Conformity Rule at COMAR Title 26, Subtitle 11, Chapter 26.

The proposed Myersville Compressor Station would operate as an emissions source in accordance with State of Maryland regulations for individual point source emissions. The proposed compressor station site is located in a nonattainment area for 8-hour ozone; however, the compressor station would not exceed the threshold emission rate for those pollutants per Maryland

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<sup>3</sup> A metric ton is 2,205 pounds, or approximately 1.1 tons.

<sup>4</sup> See volume 75 of the federal Register, page 31,514 (June 3, 2010).

regulation COMAR 26.11.17 (i.e., under 25 tons of NO<sub>x</sub> and VOC and under 100 tons PM<sub>2.5</sub>) and would not represent 10 percent or more of the area's emissions inventory for those pollutants. Therefore, no conformity determination under the CAA would be required.

### State Air Quality Regulations

COMAR 26.11 of the State of Maryland, OAC 3745 of the State of Ohio, and Title 45 of the Code of State Regulations (45 CSR) – Series 1 through 42 of the State of West Virginia outline air quality standards that are applicable to the proposed Projects.

## **6.2 Noise**

The ambient sound level of a region is defined by the total noise generated within the specific environment and is usually comprised of natural and artificial sounds. At any location, both the magnitude and frequency of environmental noise may vary considerably over the course of a day and throughout the week. This variation is caused in part by changing weather conditions, the effect of seasonal vegetative cover, and human activities.

Two measurements used by federal agencies to relate the time-varying quality of environmental noise to its known effects on people are the equivalent sound level ( $L_{eq}$ ) and the day-night sound level ( $L_{dn}$ ). The  $L_{eq}$  is an A-weighted sound level containing the same sound energy as instantaneous sound levels measured over a specific time period. Noise levels are perceived differently, depending on length of exposure and time of day. The  $L_{dn}$  takes into account the duration and time the noise is encountered. Late night through early morning (10:00 p.m. to 7:00 a.m.) noise exposures are penalized +10 decibels (dB) to account for people's greater sensitivity to sound during nighttime hours. An  $L_{dn}$  of 55 decibels on the A-weighted scale (dBA) is equivalent to a continuous  $L_{eq}$  noise level of 48.6 dBA.

The EPA has indicated that an  $L_{dn}$  of 55 dBA protects the public from indoor and outdoor activity interference. We have adopted this criterion and use it to evaluate the potential noise impact from operation of compressor facilities. The State of Maryland *Standards for Environmental Noise Requirements* require an  $L_{dn}$  of 55 dBA at residential property lines and an  $L_{dn}$  of 64 dBA at commercial property lines. There are no other known state or local noise regulations that apply to the operation or construction of the Project.

Impacts are determined at receptors known as noise-sensitive areas (NSA). NSAs include residences, schools and day-care facilities, hospitals, long-term care facilities, places of worship, libraries, and parks and recreational areas (e.g., wilderness areas) valued specifically for their solitude and tranquility. Project proponents are required by the Commission to meet an  $L_{dn}$  of 55 dBA at the nearest NSAs. It is presumed that NSAs further from the compressor station than the nearest NSA would experience noise levels less than 55 dBA.

### Construction Activities

Noise would be generated during construction of the proposed Project facilities. While individuals in the immediate vicinity of the construction activities would experience an increase in noise, this effect would be temporary and local. The changing number and type of construction equipment at these sites would result in varying levels of noise. Construction activities associated

with the Project would be performed with standard heavy equipment such as track-excavators, backhoes, bulldozers, dump trucks, and cement trucks. The most prevalent sound source during construction would be the internal combustion engines used to power the construction equipment. Construction would not affect nighttime noise levels as it would be limited to daylight hours for the Project. No significant noise impacts are anticipated during construction.

Compressor Station Operation

DTI conducted an ambient sound survey and noise analyses for the proposed Myersville and Mullett compressor stations. No noise surveys were conducted for the modifications at the existing Wolf Run Compressor Station, Sabinsville Storage Station, or the Tuscarora or Mullett 1 M&R stations as the modifications would not result in an appreciable increase in noise during operation.

The proposed Myersville Compressor Station site is bordered by I-70 (Dwight D. Eisenhower Highway) to the north, State Route 17 (Myersville Road) to the east, and Milt Summers Road to the south. Land uses surrounding the site include residential, agricultural, commercial, and industrial. The proposed Mullett Compressor Station is located east of DTI’s Mullett 1 and 2 M&R stations and the REX facilities, and other pipeline right-of-ways. State Route 7, a north-south highway along the Ohio River is approximately 2.3 miles west of the site. Land uses surrounding the site include residential, industrial (M&R stations), farm fields, and forest.

The estimated noise attributable to operation of the proposed Myersville and Mullett compressor stations at the nearby NSAs is listed in Table 10. Maps of the NSAs maps are included in the appendix as Figures 6 and 7, respectively. The total calculated, future sound levels associated with operation of the proposed Myersville Compressor Station would not change at any of the seven NSAs. The total calculated, future sound levels associated with operation of the proposed Mullett Compressor Station would be below an  $L_{dn}$  of 55 dBA at all eight NSAs and the expected increase in noise levels ranges from 0.2 to 2.2 dBA. The noticeable noise increase threshold for humans is about 3 dB; therefore, this increase would not be considered to be perceptible.

<b>Table 10: Noise Impacts at the Proposed Myersville and Mullett Compressor Stations</b>					
<b>NSA</b>	<b>Distance / Direction from Station</b>	<b>Ambient Sound Level (<math>L_{dn}</math>, dBA)</b>	<b>Estimated Sound Level of Proposed Compressor Equipment (<math>L_{dn}</math>, dBA)</b>	<b>Estimated Combined Sound Level (Ambient + Proposed Equipment) (<math>L_{dn}</math>, dBA)</b>	<b>Estimated Increase (dB)</b>
<b>Myersville Compressor Station (Solar Mars 100 turbine compressor rated at 16,000 hp)</b>					
S1	1,100 (NW)	55.4	35.4	55.4	0
S2	1,850 (NNE)	64.5	30.4	64.5	0
S3	2,750 (SSE)	56.9	25.4	56.9	0
S4	1,900 (S)	51.1	29.4	51.1	0
S5	1,300 (SSW)	55.9	33.4	55.9	0

Table 10: Noise Impacts at the Proposed Myersville and Mullett Compressor Stations					
NSA	Distance / Direction from Station	Ambient Sound Level (L <sub>dn</sub> , dBA)	Estimated Sound Level of Proposed Compressor Equipment (L <sub>dn</sub> , dBA)	Estimated Combined Sound Level (Ambient + Proposed Equipment) (L <sub>dn</sub> , dBA)	Estimated Increase (dB)
S6	2,750 (SW)	52.9	25.4	52.9	0
S7	1,850 (WSW)	51.6	30.4	51.6	0
<b>Mullett Compressor Station (Caterpillar G3612 reciprocating engine/compressor rated at 3,550 hp)</b>					
S1	2,000 (E)	42.3	40.4	44.5	2.2
S2	2,000 (NE)	43.7	40.4	45.4	1.7
S3	2,250 (N)	45.8	38.4	46.5	0.7
S4	2,000 (NW)	52.9	40.4	53.1	0.2
S5 <u>a/</u>	2,200 (WNW)	53.2	38.4	53.3	0.1
S6	4,000 (W)	44.1	31.4	44.3	0.2
S7	3,000 (SSW)	42.5	35.4	43.3	0.8
S8	3,500 (SSE)	46.3	33.4	46.5	0.2
<u>a/</u> Company-owned residence.					

DTI would implement its proposed noise mitigation measures to meet the predicted noise levels presented. Based on the measurements and estimates presented in the ambient sound survey and noise analysis, noise levels attributable to the compressor stations would remain below our criterion of an L<sub>dn</sub> of 55 dBA at nearby NSAs. However, to ensure that the noise attributable to operation of the proposed compressor stations at nearby NSAs would not exceed an L<sub>dn</sub> of 55 dBA, **we recommend that:**

**DTI should file a noise survey with the Secretary no later than 60 days after placing the authorized units at the Myersville and Mullett compressor stations in service. If the noise attributable to the operation of all of the equipment at the Myersville and Mullett compressor stations at full load exceeds an L<sub>dn</sub> of 55 dBA at the nearby NSAs, DTI should install additional noise controls to meet the level within 1 year of the in-service date. DTI should confirm compliance with the above requirement by filing a second noise survey with the Secretary no later than 60 days after it installs the additional noise controls.**

## 7.0 RELIABILITY AND SAFETY

The transportation of natural gas by pipeline involves some incremental risk to the public due to the potential for accidental release of natural gas. The greatest hazard is a fire or explosion following a major pipeline rupture.

Methane, the primary component of natural gas, is colorless, odorless, and tasteless. It is not toxic, but is classified as a simple asphyxiate, possessing a slight inhalation hazard. If breathed in high concentration, oxygen deficiency can result in serious injury or death. Methane has an auto-ignition temperature of 1,000 degrees Fahrenheit and is flammable at concentrations between 5.0 percent and 15.0 percent in air. An unconfined mixture of methane and air are not explosive; however, it may ignite if there is an ignition source. A flammable concentration within an enclosed space in the presence of an ignition source can explode. It is buoyant at atmospheric temperatures and disperses rapidly in air.

The DOT is mandated to provide pipeline safety under Title 49, U.S.C. Chapter 601. The DOT's Pipeline and Hazardous Materials Safety Administration's (PHMSA) administers the national regulatory program to ensure the safe transportation of natural gas and other hazardous materials by pipeline. It develops safety regulations and other approaches to risk management that ensure safety in the design, construction, testing, operation, maintenance, and emergency response of pipeline facilities. Many of the regulations are written as performance standards which set the level of safety to be attained and allow the pipeline operator to use various technologies to achieve safety. PHMSA ensures that people and the environment are protected from the risk of pipeline incidents. This work is shared with state agency partners and others at the federal, state, and local level. Section 5(a) of the Natural Gas Pipeline Safety Act provides for a state agency to assume all aspects of the safety program for intrastate facilities by adopting and enforcing the federal standards, while section 5(b) permits a state agency that does not qualify under section 5(a) to perform certain inspection and monitoring functions. A state may also act as DOT's agent to inspect interstate facilities within its boundaries; however, the DOT is responsible for enforcement actions.

Under a *Memorandum of Understanding on Natural Gas Transportation Facilities* (Memorandum) dated January 15, 1993, between the DOT and the FERC, the DOT has the exclusive authority to promulgate federal safety standards used in the transportation of natural gas. Section 157.14(a)(9)(vi) of the FERC's regulations require that an applicant certify that it will design, install, inspect, test, construct, operate, replace, and maintain the facility for which a Certificate is requested in accordance with federal safety standards and plans for maintenance and inspection, or shall certify that it has been granted a waiver of the requirements of the safety standards by the DOT in accordance with section 3(e) of the Natural Gas Pipeline Safety Act. The FERC accepts this certification and does not impose additional safety standards other than the DOT standards. If the Commission becomes aware of an existing or potential safety problem, there is a provision in the Memorandum to promptly alert DOT. The Memorandum also provides for referring complaints and inquiries made by state and local governments and the general public involving safety matters related to pipelines under the Commission's jurisdiction.

The FERC also participates as a member of the DOT's Technical Pipeline Safety Standards Committee which determines if proposed safety regulations are reasonable, feasible, and practicable.

The compressor stations and aboveground facilities associated with the Project must be designed, constructed, operated, and maintained in accordance with the DOT *Minimum Federal Safety Standards* in 49 CFR Part 192. The regulations are intended to ensure adequate protection for the public and to prevent natural gas facility accidents and failures. For example, Part 192 of 49 CFR specifically addresses natural gas pipeline safety issues, prescribes the minimum standards for operating and maintaining pipeline facilities, and incorporates compressor station design, including emergency shutdowns and safety equipment. Part 192 also requires a pipeline operator to establish a written emergency plan that includes procedures to minimize the hazards in a natural gas pipeline emergency. Key elements of the plan include procedures for:

- receiving, identifying, and classifying emergency events, gas leakage, fires, explosions, and natural disasters;
- establishing and maintaining communications with local fire, police, and public officials, and coordinating emergency response;
- emergency system shutdown and safe restoration of service;
- making personnel, equipment, tools, and materials available at the scene of an emergency; and
- protecting people first and then property, and making them safe from actual or potential hazards.

The DOT also requires that each operator establish and maintain liaison with appropriate fire, police, and public officials to learn the resources and responsibilities of each organization that may respond to a natural gas pipeline emergency, and to coordinate mutual assistance. The operator must also establish a continuing education program to enable customers, the public, government officials, and those engaged in excavation activities to recognize a gas pipeline emergency and report it to appropriate public officials. DTI would provide the appropriate training to local emergency service personnel before the facilities are placed in service..

We received a number of comments regarding security at the proposed Myersville Compressor Station during operation. These are addressed in the following section. Both the proposed Myersville and Mullett compressor stations would be secured with a perimeter chain link fence with locking gates to restrict access, a security alarm system and surveillance cameras to monitor the fence perimeter and detect any intrusion. In addition, the compressor stations would be equipped with the following:

- Three modes of communication for remote operation (wide area network, satellite, and telephone). The manned control center is able to start and stop the station remotely as needed.
- Control systems to ensure proper operation that are designed to detect an upset condition (i.e., vibration, gas, fire, or heat) and implement safe shutdown of the pipeline system.
- The turbine and compressor building are equipped with gas, fire, and heat detection monitoring systems.

- A natural gas-fired backup power generator that provides for continued operation of the station during any commercial power outages.
- Mainline valves with hydraulic operators which can be remotely controlled.

When the facilities are operating, on-site personnel would monitor conditions and have communication capabilities to notify local, regional, and corporate personnel if problems arise. When not in operation, the compressor stations would be fenced and gated and would be monitored remotely. DTI's Gas Control Centers operate 24 hours a day, seven days a week and monitor the pipeline system with sophisticated computer and telecommunications equipment that can detect fluctuations and control flows. The Gas Control Center is aware immediately if the pressure within a pipeline falls and can stop the gas flow to the problem area by selectively isolating sections of the pipeline until inspections are completed to determine the cause of the problem and complete repairs. This constant monitoring and rapid response to change ensures that the pipeline system operates safely and reliably.

Commenters on the Myersville Compressor Station also expressed concern about terrorist threats. DTI states that it maintains a Critical Gas Facilities Security Plan which addresses the assessment of risks to its facilities. This risk assessment process includes sabotage, terrorism, theft and diversion, cyber threats, security breaches, and security incidents. DTI Corporate Security, working with DTI Management, conducts ongoing risk assessment of its facilities utilizing the continual risk management methodology. This risk management methodology assesses historical and projected risks. The security plan implements a security strategy that includes the development of close working relationships with local, state, and federal law enforcement agencies responsible for DTI sites throughout the DTI footprint. These relationships include the sharing of risk/threat information pertaining to DTI facilities. The security strategy also includes an ongoing training program for DTI personnel on the security topics such as the signs of terrorism, sabotage, and suspicious incidents, including reporting of such incidents to DTI Management, DTI Security, law enforcement, and the appropriate state and federal regulatory agencies. The facility will be manned on a daily basis and monitored remotely by DTI security personnel when unmanned.

Commenters on the Myersville Compressor Station expressed concern about plans for emergency response, evacuation, and rerouting of motorists on the adjacent highways in the event of an emergency or explosion. An additional concern was that I-70 serves the western evacuation route for the Washington, DC area and Frederick, Maryland. As required by DOT regulations, DTI must prepare a site-specific Emergency Response Plan for the station that would be implemented at the time the station begins commercial service. DTI would work with Myersville and Frederick County officials to develop an emergency plan that fits into the local community's emergency plans and addresses site-specific issues (such as evaluation routes) that may arise in the event of an emergency or accident. The Emergency Response Plan would include contact information, safety alarms, roles during emergencies, maps, evacuation procedures, and accident investigation procedures.

DTI would develop relationships with fire and rescue agencies, police departments, and public officials. This would include conducting site visits and tours of the compressor station facility, as well as annual education sessions that:

- Allow emergency responders to understand the function of the DTI facilities and what steps are taken to assure that it operates safely;

- Provide emergency responders knowledge of DTI’s capability to respond to an emergency;
- Establish expectations for and identify roles of both DTI personnel and emergency responders; and
- Establish communication channels for coordinating mutual assistance.

When DTI initially communicates with any emergency response units, DTI would indicate the facilities involved, the design and operating parameters, the nature of the product involved and the details of the response to the situation. Normally DTI would dispatch personnel to the area immediately, and would establish and maintain mobile communications with the site until the emergency has been resolved.

Implementation of DTI's Emergency Response Plan would include a call to the local 911 center (or first-responder fire department if there is no 911 service) and/or law enforcement notifying them of the situation and requesting assistance, if necessary. Company employees on the scene or local emergency personnel would notify nearby residents, who would be evacuated if the situation warrants. Nonresident landowners would be notified by phone or mail depending on the situation and the availability of the landowner. County officials, such as the emergency response coordinator, would be notified by company employees, either immediately or as soon as possible.

## 8.0 CUMULATIVE IMPACTS

Cumulative impacts associated with the Allegheny Storage Project would be the result of multiple projects’ impacts on the resources located near the project area. Although the individual impact of the separate projects might be minor, the additive or synergistic effects from multiple projects could be significant. Cumulative impact is the incremental impact on the environment of multiple projects occurring within the same timeframe and vicinity as the proposed action. When evaluating cumulative impacts, we consider past, present, and reasonably-foreseeable future projects within the area affected by the proposed project.

For the proposed Project, a variety of active and pending industrial development projects could contribute to potentially significant cumulative impacts. Table 11 lists any active or reasonably foreseeable developments in the proposed project areas.

The following discussion analyzes the cumulative impacts on the following resources: geology and soils; waterbodies; vegetation and wildlife; land use and visual resources; and air quality and noise.

<b>Table 11: Cumulative Impacts - Active, Recently Completed, and Future Development in DTI’s Project Area</b>			
<b>State, County / Project</b>	<b>Type of Development</b>	<b>Description of Development</b>	<b>Status of Development</b>
<b>Maryland, Frederick County</b>			
Frederick/Carroll County Renewable Waste-to-Energy (WTE) Project	WTE facility	A 1,500-tons-per-day nominal regional WTE facility, located at Frederick County’s McKinney Industrial Park, that will serve the long-term solid waste disposal needs of Frederick and Carroll Counties and produce for sale approximately 45 megawatts of electricity to	Permitting process on schedule. Construction to commence in summer, 2012.

<b>Table 11: Cumulative Impacts - Active, Recently Completed, and Future Development in DTI's Project Area</b>			
<b>State, County / Project</b>	<b>Type of Development</b>	<b>Description of Development</b>	<b>Status of Development</b>
		meet the Counties' governmental energy needs.	
Social Security Administration's National Data Facility Project	National data facility	The U.S. General Services Administration acquired a 63-acre site at the Urbana Corporate Park to construct the Social Security Administration's new, high-security national data facility. The site, located at MD Route 80 (Fingerboard Road), near the I-270 interchange, is currently undeveloped, and zoned for mixed-use development.	Design / construction duration: early 2012 to 2015.
<b>Ohio, Monroe County</b>			
Cochin Marcellus Lateral Pipeline Project	Pipeline	Kinder Morgan Cochin, LLC proposes a 240-mile, 16-inch diameter pipeline that originates in Marshall County, West Virginia and terminates at an interconnect with the Kinder Morgan Cochin Pipeline in Fulton County, Ohio. The pipeline would cross northern Monroe County.	Application filed with the Ohio Power Siting Board on November 22, 2010. Target in service date is mid-2012.
Marcellus Ethane Pipeline System	Pipeline	El Paso Group proposes an approximate 1,100-mile ethane pipeline to transport ethane from the Marcellus shale area to a destination point located in Eunice, LA, Plaquemine, LA., or Mt. Belvieu, TX. The project includes newly constructed facilities and conversion of existing pipelines to ethane service. The pipeline would cross Monroe County.	Project in proposal stage. Expected end date set for 4 <sup>th</sup> Quarter 2014.
Edgemere Drive Bridge Rehabilitation Project	Bridge rehabilitation	Rehabilitation of the Edgemere Drive Bridge over Round Pond Outlet. Water main boring and tie-ins, completed, utilities to be relocated, and bridge to be demolished.	Construction duration: September 6, 2011 to December 15, 2011.
Mill Road Improvements Project Phase II	Road reconstruction	Road reconstruction that involves a one way detour along Mill Road from Manitou Road to North Greece Road.	Construction duration: September 13, 2010 to August 13, 2012.
Lyell Avenue Improvements	Road reconstruction and culvert replacement	A two-season road reconstruction project: 1st season - underground utility work and culvert replacement. Culvert replacement will be progressed under a complete road closure, approximately 10 days in duration. 2nd season - work being progressed under 1-way westbound traffic. Detour for both seasons will utilize Union Street, Route 31 and Gillette Road.	Construction duration: August 1, 2011 to June 30, 2012.
Hill Road Bridge Replacement Project	Bridge replacement	Replace the Hill Road Bridge over Brockport Creek to Town of Parma owned Bridge.	Construction duration: June 15, 2012 to September 3, 2012.
Pinehill Road Resurfacing Project	Road resurfacing	Resurface Pinehill Road, Hinkleyville Road to Gutter Section.	Construction duration: May 5, 2012 to October 10, 2012.
Jefferson Avenue Reconstruction Project	Road reconstruction	Road reconstruction from Ayrault Road to NYS Route 31F. Water main and service, sanitary sewer lateral installations. Storm sewer work continues and roadway excavation underway between. Currently relocating overhead cables to new poles. One way northbound traffic pattern in effect. Southbound traffic detoured 31F to 250 to Ayrault. Two way traffic access provided at north end for businesses.	Construction duration: March 14, 2011 to September 14, 2012.

<b>Table 11: Cumulative Impacts - Active, Recently Completed, and Future Development in DTI's Project Area</b>			
<b>State, County / Project</b>	<b>Type of Development</b>	<b>Description of Development</b>	<b>Status of Development</b>
<b>West Virginia, Lewis County</b>			
Marcellus Assets	Drilling	In December, 2010, a press release appeared announcing that Magnum Hunter Resources Corp. had acquired, through its wholly-owned subsidiary, <i>Triad Hunter, LLC</i> , the operating interest in a portfolio of leased land in Wetzel and Lewis counties from PostRock Energy. The property was referred to as the Marcellus Assets. The Lewis County land was valued at \$11.75 million and the deal was to close in January, 2011. 6,316 net acres were in Lewis County. In total, the sale included 8 proved and developed producing wells, 6 developed wells shut-in, 2 wells behind pipe, and 15 proved yet undeveloped locations.	Drilling on this property expected in early 2011.
Eureka Hunter Pipeline Project	Pipeline	Magnum Hunter formed a joint venture with Colorado-based DCP Midstream to develop the project which is to be completed in two sections: (1) 114 miles passing through nine West Virginia counties, including Lewis and (2) 68 miles traversing central West Virginia.	The project secured its own primary source of financing to complete construction and expand operations of the pipeline through fiscal year 2012.
Skin Creek Arch Bridge Project	Bridge construction	New bridge construction on County Route 30 on Skin Creek Road.	Construction duration: August 22, 2011 to November 1, 2011.
<b>Pennsylvania, Tioga County</b>			
Tioga County Extension Project	Pipeline	On May 19, 2011, Empire Pipeline Inc., a subsidiary of National Fuel Gas Company, received approval from the FERC at Docket No. CP10-493-000 to construct a new, 15-mile, 24-inch diameter natural gas pipeline in Steuben County, NY. and Tioga County, PA with an interconnect to Empire's existing Empire Connector Pipeline at the northern end of the project.	Construction duration: July 2011 to Fall 2011. In service date: November 1, 2011. Remaining restoration, monitor crop yields into the summer of 2012.
State Route (S.R.) S.R. 49 Section 057 Project	Superstructure rehabilitation	Superstructure rehabilitation on S.R. 49 over the Cowanesque River in Westfield Borough.	Construction during the summer of 2012.
S.R. 414-30M Project	Repair of slide area	Repair slide areas along S.R. 414 from Segment 0080, Offset 0000 to Segment 0080, Offset 2549 in Morris Township.	Spring of 2014
S.R. 4017, Section 015 Project	Bridge replacement	Bridge replacement project over Losey Creek and over Monkey Run, the distance between the two structures is approximately 409 feet, in Middlebury Township.	Construction activities scheduled to occur in 2011.

## Geology and Soils

The facilities associated with the Allegheny Storage Project are expected to have a temporary but direct impact on near-surface geology and soils. Impacts on geology and soils could lead to poor revegetation potential and indirectly affect wildlife and aquatic resources as a result of poor vegetative cover and increased erosion and sedimentation. The soil stabilization and revegetation requirements included in our Plan and Procedures would prevent or minimize any indirect impacts. Because the direct effects would be highly localized and limited primarily to the

period of construction, cumulative impacts on geology and soils would only occur if other projects are constructed at the same time and place as the proposed facilities. The construction of some of the projects listed in Table 9 would coincide with the schedule proposed for the Project. While there would be the potential for cumulative impacts on geology and soils if the projects would be in close proximity and constructed concurrently with the Project, any cumulative impact on these resources would be minimized by the implementation of erosion control and restoration measures during the construction and restoration of the projects. Therefore, any potential cumulative impacts on geological resources and soils would be temporary and minor.

### Waterbodies and Wetlands

The Allegheny Storage Project pipelines and/or permanent access roads would cross 13 waterbodies. The Project would not involve the construction of permanent diversions or dams and, therefore, is expected to have only temporary impacts on surface water quality. The greatest potential impacts of pipeline construction on surface waters would result from an increase in sediment loading to surface waters and an increase in internal sediment loading due to channel/floodplain instability as a result of a change in erosion and/or deposition patterns. The level of impact of the proposed Project on surface waters would depend on precipitation events, sediment loads, stream area/velocity, channel integrity, and bed material.

The highest levels of sediment would be generated by the use of the wet open-cut method. Less sediment would be generated where dry crossing techniques such as the flume or dam and pump method are employed. Where the flume or dam and pump method is used, temporary construction-related impacts would be limited primarily to short periods of increased turbidity before installation of the pipeline, during the installation of the upstream and downstream dams, and following installation of the pipeline when the dams are pulled and flow across the restored work area is re-established.

Although there is the potential that cumulative impacts could result if the Project were constructed in addition to other projects listed in Table 9, the geographic extent and duration of disturbances caused by construction of the Project would be minimal and further minimized by the implementation of our Plan and Procedures. As a result, the cumulative effects of these projects on surface water resources are expected to be minor.

Impacts on wetlands would result from construction of the proposed Project and potentially some of the other reasonably foreseeable future projects. The Project would result in the temporary disturbance of approximately 1.46 acres of wetlands. No forested wetlands would be converted to emergent or scrub shrub wetlands as a result of vegetation maintenance of the permanent cleared right-of-way. Construction and operation of the Project would not contribute to cumulative long-term impacts on wetlands within the region.

### Vegetation and Wildlife

When projects are constructed at or close to the same time, they could have a cumulative impact on vegetation and wildlife occurring in the area. Clearing and grading and other construction activities associated with the Project, along with the development projects listed in Table 9 would result in the removal of vegetation; alteration of wildlife habitat; displacement of wildlife; and other potential secondary effects such as increased population stress, predation, and

the establishment of invasive plant species. These effects would be greatest where the other projects are constructed within the same timeframe and area as the proposed Project and where the recovery time of the vegetation/habitat is equal to that of the Project (i.e., long term). Implementation of our Plan and Procedures would promote revegetation of the right-of-way following construction.

### Land Use and Aesthetics

The Project and other foreseeable future projects would result in both temporary and permanent changes to current land uses. Of the 114.2 acres that would be affected by the Project, most is land already developed for the aboveground facilities land or existing pipeline right-of-way (68.0 acres) or open land (36.8 acres). Approximately 9.4 acres of forest clearing would be required, of which 4.5 acres would be maintained in a non-forested state. The development projects listed in Table 9 would disturb hundreds of additional acres of land affecting a variety of land uses.

The visual character of the existing landscape is defined by historic and current land uses such as agricultural, recreation, conservation, and development. The visual qualities of the landscape are further influenced by existing linear installations such as highways, railroads, pipelines, and electrical transmission and distribution lines. Within this context, the compressor station and other aboveground facilities would have the most visual impact, while the pipeline portion of the Project would be visually subordinate to the existing landscape character and would contribute only incrementally to overall visual conditions, particularly after completion of reclamation and the reestablishment of vegetation. The projects listed in Table 9 would have the most impact on visual resources in the area. In addition, adherence with our Plan and Procedures would promote revegetation of the construction work areas with native herbaceous and scrub species.

### Cultural Resources

Past disturbances to cultural resources sites in the Project area are typically related to accidental disturbances; intentional destruction or vandalism; lack of awareness of historical value; and construction and maintenance operations associated with existing roads, railroads, utility lines, and electrical transmission lines. The currently proposed projects listed in Table 9 that are defined as federal actions would include mitigation measures designed to avoid or minimize additional direct impacts on cultural resources. Where direct impacts on significant cultural resources are unavoidable, mitigation (e.g., recovery and curation of materials) would occur before construction. Non-federal actions would need to comply with any mitigation measures required by the affected states

### Air and Noise Quality

The Project and the projects listed in Table 9 would all involve the use of heavy equipment that would generate emissions of air contaminants, fugitive dust, and noise. The majority of these impacts would be minimized because the construction activities would occur over a large geographical area. Any air impacts would be localized and confined primarily to the airsheds in which the projects occur. Cumulative impacts on air quality would be limited primarily to areas

where more than one project is proposed within the same airshed and would be constructed simultaneously.

Because the projects listed in Table 9 would take place over a large area; have varying construction schedules; and adhere to federal, state, and local regulations for the protection of ambient air quality, long-term cumulative impacts on air quality would not be anticipated. Because the impact of noise is highly localized and attenuates quickly as the distance from the noise source increases, cumulative impacts associated with construction or operation would be unlikely unless one or more of the projects listed in Table 9 is constructed at the same time in the same location. However, even short-term additional noise during construction could, for example, create enough disturbance to nesting birds to constitute a potential adverse impact. Although the Project could result in cumulative noise impacts if other projects listed in Table 9 would be constructed within the same timeframe and vicinity, the majority of these impacts would be limited to the period of construction. Operation of the Project compressor stations would be in compliance with the FERC and local noise guidelines and would not contribute to existing ambient noise in the localized area.

### Reliability and Safety

Impact on reliability and public safety would be mitigated through the use of the DOT Minimum Federal Safety Standards in Title 49 CFR Part 192, which are intended to protect the public and to prevent natural gas facility accidents and failures. In addition, DTI's construction contractors would be required to comply with the Occupational Safety and Health Administration Safety and Health Regulations for Construction in Title 29 CFR Part 1926. No cumulative impacts on safety and reliability would be anticipated to occur.

### Conclusion

There are recently completed, ongoing, and planned projects near the Allegheny Storage Project that meet the criteria for inclusion in the cumulative impacts analysis. However, with implementation of federal and state permit requirements and specialized construction techniques and mitigation to minimize and control environmental impacts, the majority of cumulative impacts would be temporary and minor. We have determined that only limited cumulative effects are anticipated when the proposed projects are added to the identified Project in the immediate area.

## **C. ALTERNATIVES**

### **1.0 INTRODUCTION**

In accordance with NEPA and Commission policy, we identified and evaluated alternatives to DTI's Project to determine whether they would be reasonable and environmentally preferable to the proposed action. These alternatives include the no action or postponed action alternative, system alternatives, and aboveground facility site alternatives. Our criteria for selecting potentially environmentally preferable alternatives are: the ability to meet the project objectives; technical and economic feasibility and practicality; and significant environmental advantage over the proposed projects.

## **2.0 NO ACTION ALTERNATIVE**

The no-action alternative would avoid the environmental effects associated with construction and operation of DTI's Project. However, DTI would not have the ability to meet the natural gas capacity needs of and contractual obligations to its customers. Other natural gas transmission companies may be required to increase their capacity and construct new facilities to meet the demand for the additional capacity. Such actions would likely result in the transference of impacts from one location to another, but would not eliminate or significantly reduce impacts.

It is possible that customers of DTI would seek other sources of energy and/or alternative proposals to transport the requested volumes of natural gas. Such alternative projects would likely require the expansion of existing facilities or construction of new facilities. These actions would result in their own set of specific environmental impacts.

Although the no-action alternative would result in the Project not being constructed, this would result in a lost opportunity to create additional natural gas supply diversity and enhanced supply reliability with limited environmental impact. This alternative would not satisfy the purpose and need for the Allegheny Storage Project.

## **3.0 SYSTEM ALTERNATIVES**

System alternatives make use of existing or modified natural gas systems to meet the stated objectives of the proposed action. The purpose of identifying and evaluating system alternatives is to determine if the potential environmental impact associated with construction and operation of the proposed facilities could be avoided or minimized by using another pipeline system. A system alternative could make it unnecessary to construct part, or all, of the proposed project, although modifications or additions to another system may be required. Any alternative systems would need to meet the objectives of DTI's Project. As currently proposed, DTI's proposed Project do make use of existing systems by expanding its current facilities.

We considered the possible use of alternative systems operated by DTI and other companies. DTI's PL-1 pipeline extends south from its Leidy Storage complex in Pennsylvania to its proposed Myersville Compressor Station and Tuscarora M&R Station in Maryland. To meet the Project objectives, approximately 30 miles of loop<sup>5</sup> along DTI's Line PL-1 pipeline would be required. While this system alternative would eliminate the need of the proposed Myersville Compressor Station, the construction of a pipeline loop would cause significantly more environmental disturbance than that of a compressor station. The proposed Myersville facilities would affect 21.81 acres for construction and 13.47 acres for operation whereas a pipeline loop would affect 418.02 acres for construction and 109.1 acres for operation.

The proposed Mullett Compressor Station in Ohio would process gas received from Dominion East Ohio at DTI's existing Mullett 1 M&R Station. In order for Dominion East Ohio to meet the Project's objectives, it would have to deliver storage gas to DTI and a MAOP of 900 pounds per square inch gauge (psig), which is currently not feasible on Dominion East Ohio's

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<sup>5</sup> A loop is a pipeline that is constructed adjacent to another pipeline, typically in the same right-of-way, for the purpose of increasing capacity in this portion of the system.

existing system. Dominion East Ohio would have to upgrade its system facilities to meet the Project objectives and DTI's storage lease agreement would have to be modified.

An additional 100 mmcf/d of dehydration capacity is needed at DTI's existing Wolf Run Compressor Station in West Virginia for the planned storage withdrawal flow requirements. There are no system or facility alternatives that would accomplish this while meeting the Project objectives.

In Pennsylvania, the Sabinsville Storage Station enhancements are needed to ensure that Project-related storage maximum withdrawal rates can be sustained. Replacements of the Sabinsville pipelines are needed to reduce pressure drop and enhance withdrawal capabilities. There are no system or facility alternatives that would accomplish these operations and meet the Project objectives.

#### **4.0 ABOVEGROUND FACILITY ALTERNATIVES**

Because proposed activities associated with the Tuscarora and Mullett 1 M&R stations, Wolf Run Compressor Station, and Sabinsville Storage Station would occur within DTI's property boundaries of existing facilities and existing right-of-way, alternative sites were not evaluated.

##### Myersville Compressor Station

The location for the new compressor station in Maryland required that it be sited within a specific corridor on DTI's existing PL-1 pipeline system. The compression is designed to boost pressure in the PL-1 pipeline to maintain the operating pressure at a level required for peak deliveries. Moving the compression too far south would result in exceeding velocity limitations and would reduce line pack opportunities during transient flows. Moving the compression too far north would not maintain the minimum suction pressure required at the next downstream compressor station (Leesburg Station). It is operationally advantageous to locate incremental compression somewhat equidistant from existing compression in order to take advantage of line pack between such stations during transient flows. Moving the compression too close to the next station does not allow for as much line packing and drafting capabilities.

DTI performed hydraulic studies to determine the most advantageous location for the required peaking compression. This study identified a 6-mile-long corridor along the PL-1 pipeline, 3 miles north and 3 miles south of the hydraulic center. Due to the difficulty of finding acceptable sites, DTI expanded the hydraulic study to the maximum acceptable limits of a 12-mile-long corridor along the PL-1 pipeline, centered on the original hydraulic center.

As a result, DTI evaluated eight sites as alternatives for the proposed Myersville Compressor Station as shown in Figure 8 in the appendix. Of the eight alternative sites considered, three sites (Sites 1, 7, and 8) were eliminated because they were located outside of the expanded 12-mile hydraulic study corridor and were considered to be not practicable alternatives. Two sites (Sites 2 and 3) were eliminated because of potential cultural resource and constructability issues and because they did not offer a relatively secluded industrialized setting. Two sites (Site 5 and Site 6) were considered as viable alternatives and were proposed during review of a prior project (the Factory Storage Project) that was withdrawn due to technical considerations related to that project's new gas storage facilities. Both sites are located in open

agricultural land and, during public review of those sites, the public encouraged DTI to search for a more industrialized location where additional acreage might also be available to minimize visual impact.

DTI selected the current location for the Myersville Compressor Station (Site 4) as its preferred site because it has sufficient acreage (approximately 21.1 acres), provides excellent access, has good constructability qualities, is located in a commercial/industrial area adjacent to the I-70 corridor, is located in the acceptable hydraulic corridor, and provides abundant natural vegetation for screening and noise attenuation.

We received a number of comments from Myersville stating that the proposed site is not appropriate and that the station should be relocated to an industrially zoned area. DTI stated that it had conducted an extensive search for potential sites within its 12-mile hydraulic corridor. There are no properties available within this corridor currently zoned for industrial use. The only property identified within the hydraulic study corridor that is zoned for industrial use is the Albans tractor facility, located on the opposite (south) side of Milt Summers Road and the proposed compressor station site.

Commenters asked that DTI evaluate the East Alcoa site and a Highway 15 site. The East Alcoa site is outside of the limits of DTI's hydraulic study corridor and too far off the PL-1 pipeline corridor to be economically feasible. Based on the location description provided, DTI assumed that the Highway 15 site is located near Point of Rocks that was approved site for a former Duke Energy project in 2002. DTI did investigate this site and determined that it is located more than 5 miles south of the southern limits of DTI's hydraulic study corridor. Therefore, neither of these sites meet project feasibility requirements.

#### Mullett Compressor Station

The two sites that were evaluated as an alternative for the proposed Mullett Compressor Station are shown in Figure 9 in the appendix. DTI determined that installation of this compressor station adjacent to either of its existing Mullett 1 or Mullett 2 M&R stations would not be feasible because of the proximity to an existing M&R station operated by REX and the lack of sufficient and constructible land on which to install the compressor station.

As a result, DTI identified two alternative sites (Location 1 and 2) in the vicinity of the existing Mullett 1 or Mullett 2 M&R stations. Both sites consist of open fields with no evident environmental constraints. However, of the two sites, DTI determined that Location 1 is preferable to Location 2 because of its more favorable topographic relief and a landowner with an interest in selling the property. Because DTI was able to execute a purchase option agreement for Location 1 and this site appears to be environmentally comparable to Location 2, Location 2 was eliminated from further consideration. Based on our analysis of the Mullett Compressor Station alternative, we agree with DTI's selection.

#### **D. CONCLUSIONS AND RECOMMENDATIONS**

Based on the analysis in this EA, we have determined that if DTI construct and operate the proposed facilities in accordance with their application and supplements and the staff's recommended mitigation measures, approval of these proposals would not constitute a major

federal action significantly affecting the quality of the human environment. We recommend that the Commission's Order contain a finding of no significant impact and include the mitigation measures listed below as conditions to any Certificate the Commission may issue.

1. DTI shall follow the construction procedures and mitigation measures described in their applications and supplements (including responses to staff data requests) and as identified in the EA, unless modified by the Order. DTI must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
  - b. justify each modification relative to site-specific conditions;
  - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of OEP before using that modification.
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the projects. This authority shall allow:
  - a. the modification of conditions of the Order; and
  - b. the design and implementation of any additional measures deemed necessary (including stop-work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from project construction and operation.
3. **Prior to any construction**, DTI shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs **before** becoming involved with construction and restoration activities.
4. The authorized facility locations shall be as shown in the EA, as supplemented by filed alignment sheets. **As soon as they are available, and before the start of construction**, DTI shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

DTI's exercise of eminent domain authority granted under NGA section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. DTI's right of eminent domain granted under NGA section 7(h) does not authorize them to increase the size of their natural gas facilities to accommodate future needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. DTI shall file with the Secretary detailed alignment maps and aerial photographs at a scale not smaller than 1: 6,000 identifying all facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/aerial photographs. Each area must be approved in writing by the Director of OEP **before construction in or near that area.**

This requirement does not apply to extra workspace allowed by our Plan and/or minor field realignments per landowner needs and requirements which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
  - b. implementation of endangered, threatened, or special concern species mitigation measures;
  - c. recommendations by state regulatory authorities; and
  - d. agreements with individual landowners that affect other landowners or could affect sensitive environmental areas.
6. **Within 60 days of the acceptance of the Certificate and before construction begins,** DTI shall file an Implementation Plan with the Secretary for review and written approval by the Director of OEP. DTI must file revisions to their respective plans as schedules change. Each plan shall identify:
    - a. how the company will implement the construction procedures and mitigation measures described in its application and supplements (including responses to staff data requests), identified in the EA, and required by the Order;
    - b. how the company will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
    - c. the number of EIs assigned, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
    - d. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
    - e. the location and dates of the environmental compliance training and instructions the company will give to all personnel involved with construction and restoration (initial and refresher training as the project progresses and personnel change);
    - f. the company personnel (if known) and specific portion of the company's organization having responsibility for compliance;

- g. the procedures (including use of contract penalties) the company will follow if noncompliance occurs; and
  - h. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
    - (1) the completion of all required surveys and reports;
    - (2) the environmental compliance training of onsite personnel;
    - (3) the start of construction; and
    - (4) the start and completion of restoration.
7. Beginning with the filing of its respective Implementation Plans, DTI shall file updated status reports with the Secretary on a **monthly basis until all construction and restoration activities are complete**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. an update on efforts to obtain the necessary federal authorizations;
  - b. the construction status of the projects, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally-sensitive areas;
  - c. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);
  - d. a description of the corrective actions implemented in response to all instances of noncompliance, and their cost;
  - e. the effectiveness of all corrective actions implemented;
  - f. a description of any landowner/resident complaints which may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
  - g. copies of any correspondence received by the company from other federal, state, or local permitting agencies concerning instances of noncompliance, and National Fuel's or TGP's response.
8. **Prior to receiving written authorization from the Director of OEP to commence construction of their respective project facilities**, DTI shall file with the Secretary documentation that it has received all applicable authorizations required under federal law (or evidence of waiver thereof).
9. DTI must receive written authorization from the Director of OEP **before placing its projects into service**. Such authorization will only be granted following a determination that rehabilitation and restoration of the areas affected by the projects are proceeding satisfactorily.
10. **Within 30 days of placing its authorized facilities in service**, DTI shall file an affirmative statement with the Secretary, certified by a senior company official:

- a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
  - b. identifying which of the Certificate conditions DTI has complied with or will comply with. This statement shall also identify any areas affected by the project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
11. DTI should file a noise survey with the Secretary **no later than 60 days** after placing the authorized units at the Myersville and Mullett compressor stations in service. If the noise attributable to the operation of all of the equipment at the Myersville and Mullett compressor stations at full load exceeds an  $L_{dn}$  of 55 dBA at the nearby NSAs, DTI should install additional noise controls to meet the level **within 1 year** of the in-service date. DTI should confirm compliance with the above requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls.

## E. REFERENCES

- Brezinski, D.K., Reger, J.P., and Baum, G.R., 2003. *Geologic Mapping as a Basis for Sinkhole Susceptibility Prediction, Frederick Valley, Maryland*: <http://www.mgs.md.gov/geo/pub/geomapsinkh.pdf>.
- Brezinski, D.K., 2009. *Karst Features of the Myersville Quadrangle and Maryland portion of the Smithsburg Quadrangle, Washington and Frederick Counties, Maryland*: Maryland Geological Survey, MY\_SMKST2009\_1, scale 1:24,000.
- U.S. Fish and Wildlife Service (FWS), 2011a. Letter dated October 27, 2011, from Leopoldo Miranda, Supervisor, Chesapeake Bay Field Office, Annapolis, Maryland.
- U.S. Fish and Wildlife Service (FWS), 2011b. Letter dated October 20, 2011, from Leopoldo Miranda, Supervisor, Chesapeake Bay Field Office, Annapolis, Maryland.
- U.S. Fish and Wildlife Service (FWS), 2011c. Letter dated September 2, 2011, from Mary Knapp, Ph.D., Field Supervisor, Ecological Services, Columbus, Ohio.
- U.S. Fish and Wildlife Service (FWS), 2011d. Letter dated November 21, 2011, from Deborah Carter, Field Office Supervisor, West Virginia Field Office, Elkins, West Virginia.
- U.S. Fish and Wildlife Service (FWS), 2011e. Letter dated October 24, 2011, from Barbara Sargent, Environmental Resource Specialist, Wildlife Diversity Unit, West Virginia Field Office, Elkins, West Virginia.
- Pennsylvania Department of Conservation and Natural Resources. Letter dated December 5, 2011, from Adam M. Hnatkovich, Environmental Review Specialist, Harrisburg, Pennsylvania.

**F. LIST OF PREPARERS**

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Appendix

Figures

**Figure 1: Allegheny Storage Project, General Location Map**

**Figure 2: Allegheny Storage Project, Maryland Facilities**

**Figure 3: Allegheny Storage Project, Ohio Facilities**

**Figure 4: Allegheny Storage Project, West Virginia Facilities**

**Figure 5: Allegheny Storage Project, Pennsylvania Facilities**

**Figure 6: Nearest Noise Sensitive Receptors, Myersville Compressor Station**

**Figure 7: Nearest Noise Sensitive Receptors, Mullett Compressor Station**

**Figure 8: Alternate Compressor Station Sites for Myersville Compressor Station**

**Figure 9: Alternate Compressor Station Sites for Mullett Compressor Station**