

## **Requirement N**

### Hydrologic and Hydraulic Analysis

### **Hydrologic and Hydraulic Analysis**

There are no above-ground watercourse fills on the Project in Allegheny County; therefore, a hydrologic and hydraulic analysis is unnecessary.

## **Requirement O**

Stormwater Management Analysis and Consistency Letters  
Findlay and North Fayette Townships

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**Township of Findlay**

1271 Route 30

P.O. Box W

Clinton, Pennsylvania 15026

Phone: (724) 695-0500

Fax: (724) 695-1700

Website: [www.findlay.pa.us](http://www.findlay.pa.us)

November 22, 2017

Mr. Joseph Ryan  
AECOM  
Foster Plaza 6  
681 Anderson Drive  
Pittsburgh, PA 15220

RE: Shell Pipeline  
Falcon Ethane Pipeline  
DEP File E02-1773

Dear Mr. Ryan:

With reference to the Township's stormwater management review for the above referenced project, the plans do appear to conform to the Township Stormwater Management Ordinance.

If you have any questions, please feel free to contact us.

Sincerely,

Christopher J. Caruso  
Township Manager

CJC/kc

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**SOLICITOR**

Vincent A. Tucceri  
519 Court Place, Pittsburgh, PA 15219

November 2, 2017

Mr. Joseph Ryan, PE  
Senior Civil/Environmental Engineer, Oil and Gas  
AECOM  
Foster Plaza 6  
681 Anderson Drive, Suite 400  
Pittsburgh, PA 15220

RE: Shell Pipeline Company's Falcon Ethane Pipeline Project

Dear Joseph:

Thank you for contacting me regarding Shell's Falcon Ethane Pipeline Project, part of which runs through portions of North Fayette Township. So long as the area disturbed for the project will be returned to the original contours once the project is completed and so long as temporary Erosion & Sedimentation Control BMPs are in place during construction (which are approved by the Pennsylvania Department of Environmental Protection (PA DEP) and the Allegheny County Conservation District (ACCD)), an associated stormwater review and grading permit is not required for subject project from North Fayette Township.

Please note that North Fayette Township would like to receive a copy of any related approval letters or correspondence, for our files and records, from the PA DEP and/or ACCD regarding the project.

If you have any questions or need any additional information, please contact me at 724-693-3104 or [lludwig@north-fayette.com](mailto:lludwig@north-fayette.com).

Sincerely,

Laura Ludwig, AICP  
Community Development Director

## **Requirement P**

### Floodplain Management Analysis and Consistency Letters

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**FLOODPLAIN MANAGEMENT ANALYSIS AND CONSISTENCY LETTER**

The Floodplain Consistency Letter for Findlay Township is provided. There are no FEMA Special Flood Hazard Area Designations within North Fayette Township; therefore, no analysis was conducted.

**From:** TrackingUpdates@fedex.com  
**Sent:** Friday, August 10, 2018 11:09 AM  
**To:** Shearer, Natalie  
**Subject:** FedEx Shipment 772914038301 Delivered

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This tracking update has been requested by:

Company Name: AECOM  
Name: Natalie L. Shearer  
E-mail: [natalie.shearer@aecom.com](mailto:natalie.shearer@aecom.com)

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Our records indicate that the following shipment has been delivered:

Invoice number: 70.12  
Purchase order number: 60536988  
Reference: 04104183.1  
Ship date: Aug 9, 2018  
Signed for by: C.REINHART  
Delivery location: CLINTON, PA  
Delivered to: Receptionist/Front Desk  
Delivery date: Fri, 8/10/2018 11:05 am  
Service type: FedEx Standard Overnight®  
Packaging type: FedEx® Envelope  
Number of pieces: 1  
Weight: 0.50 lb.  
Special handling/Services: Deliver Weekday  
Standard transit: 8/10/2018 by 4:30 pm  
  
Tracking number: 772914038301

Shipper Information	Recipient Information
Natalie L. Shearer	Floodplain Manager
AECOM	Findlay Township
681 Andersen Drive, Suite 400	1271 ROUTE 30
Foster Plaza 6	CLINTON
Pittsburgh	PA
PA	US
US	15026
15220	



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Thank you for your business.

August 9, 2018

FINDLAY TOWNSHIP  
FLOODPLAIN MANAGER  
1271 ROUTE 30  
PO BOX W  
CLINTON, PA 15026

**Municipal Floodplain Management Analysis  
Falcon Ethane Pipeline System  
Allegheny County, Pennsylvania**

Dear Sir or Madam:

Shell Pipeline Company LP (SPLC) proposes to build, own, and operate the Falcon Ethane Pipeline System (Project). The Project will consist of an approximately 98-mile common carrier ethane supply pipeline that will be located in southwestern Pennsylvania, Ohio, and West Virginia. The Project will connect three major ethane sources in Houston, Pennsylvania, Scio, Ohio, and Cadiz, Ohio to Shell Chemical's planned Pennsylvania Petrochemical Plant (Plant) located in Monaca, Pennsylvania.

The Project will consist of the following:

- An approximately eleven (11) mile 10-inch diameter steel pipeline that will run from the existing MarkWest Cadiz, Ohio facility to a junction point located two miles southeast of Scio, Ohio.
- An approximately fifty-three (53)-mile 12-inch diameter steel pipeline will stretch from the Utica East Ohio plant in Scio, Ohio to a junction site located four miles southwest of the Monaca, Pennsylvania Petrochemical plant.
- A third 12-inch diameter steel pipeline will originate out of MarkWest's Houston, Pennsylvania fractionation plant and stretch to the junction site that is located four (4) miles southwest of Monaca.
- A 16-inch diameter steel pipeline will stretch approximately (4) four miles from that junction site to the Plant in Monaca, Pennsylvania.

This letter is specific to those activities occurring within Findlay Township as it relates to Federal Emergency Management Agency (FEMA) Special Flood Hazard Areas (SFHA) which are also consider the 100-year floodplain. The 100-year floodplain is the land area covered by the floodwaters of the 100-year flood.

AECOM has completed an analysis of potential impacts to the FEMA SFHAs from the Project in accordance with 25 Pa. Code § 105.13, including, *inter alia*, a visual review of FEMA SFHAs in relation to the planned construction activities. A summary of the proposed impacts related to Findlay Township is provided below for your review and comment.

<b>FALCON ETHANE PIPELINE SYSTEM                      FEMA FLOODPLAIN CROSSINGS                      FINDLAY TOWNSHIP, ALLEGHENY COUNTY, PENNSYLVANIA</b>								
Description of Impact	Structure Type	Resource ID	Resource Name	FEMA Special Flood Hazard Area Designation	Impact area (acres)		Latitude	Longitude
					Permanent	Temporary		
Pipeline Crossing	Equipment access and E&S controls	S-PA-151111-MRK-003	UNT to Potato Garden Run	Zone A	0	0.770	40.48146	-80.295934

The SFHA crossings listed above are depicted on the enclosed plans from the Project’s PADEP Chapter 105 Permit Application.

Please note that based on AECOM’s analysis, construction activities are not expected to create permanent loss of flood storage capacity or hydraulic capacity since the pre-construction surface elevations will be re-established following construction. The temporary and permanent impacts noted above are associated with vegetation management resulting from underground pipe installation only, and do not represent a permanent ground elevation modification or flood storage or hydraulic capacity loss. No permanent aboveground structures or fill are proposed within the FEMA 100-year floodplain and therefore, no increases in 100-year flood elevation are anticipated as a result of temporary impacts for construction activities to install the pipeline. Pipeline construction across waterbodies will be performed in accordance with applicable PADEP Chapter 105 and 102 permit conditions, and SPLC’s approved Soil Erosion Sediment Control (SESC) Plan. The proposed crossing will be restored to preconstruction contours and revegetated within disturbed riparian areas.

On behalf of SPLC, AECOM respectfully requests that Findlay Township review this analysis with respect to your municipality’s respective floodplain management codes and ordinances and, if applicable, provide comments to:

Natalie L. Shearer, M.S., QEP  
 AECOM  
 Foster Plaza 6  
 681 Andersen Drive, Suite 400  
 Pittsburgh, PA 15220

**Please do not send comments directly to the PADEP**, as SPLC must include them with their permit application. Should you have any questions or concerns regarding this request, please contact Natalie Shearer at (412)-503-4595 or via email at [natalie.shearer@aecom.com](mailto:natalie.shearer@aecom.com).

Yours sincerely,



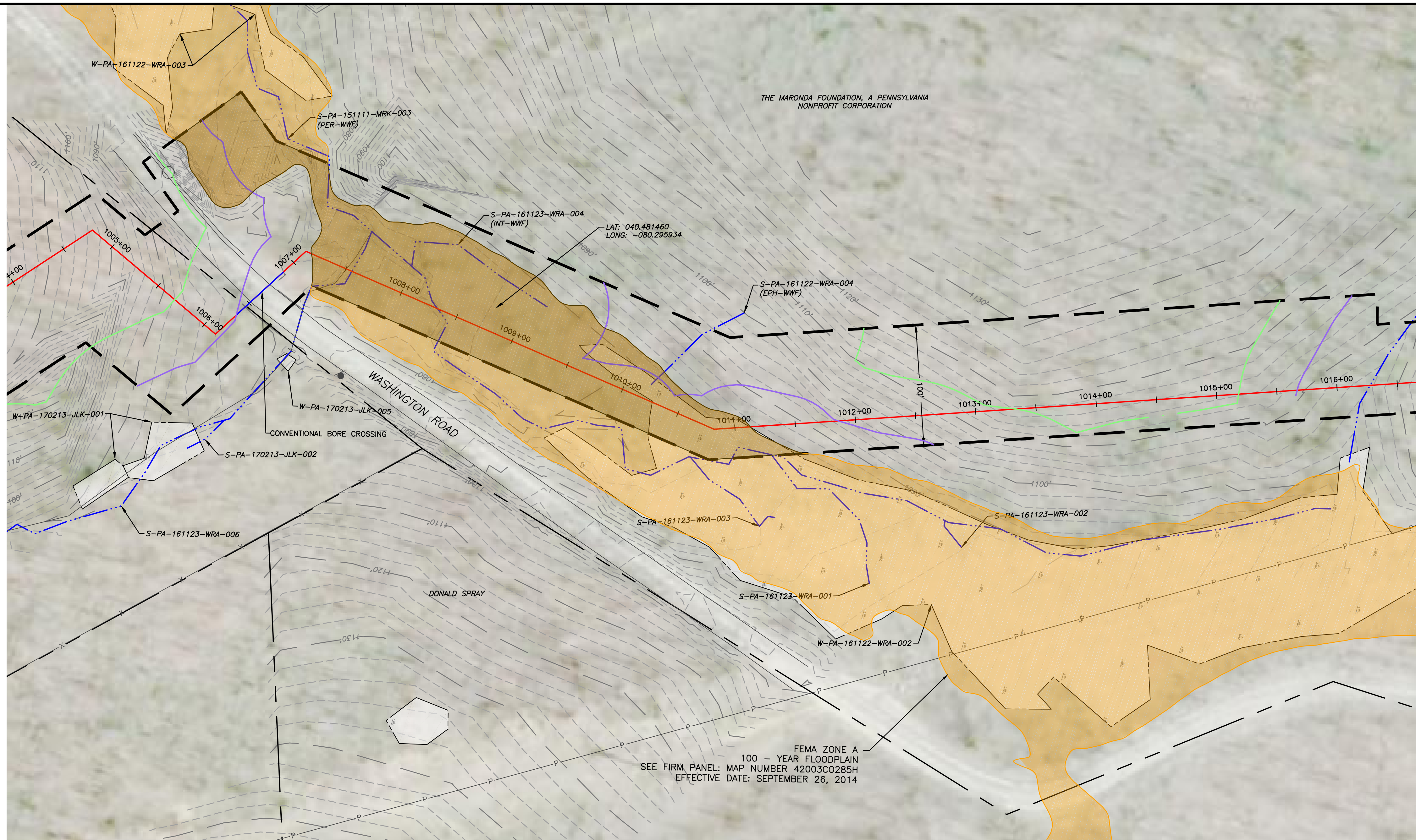
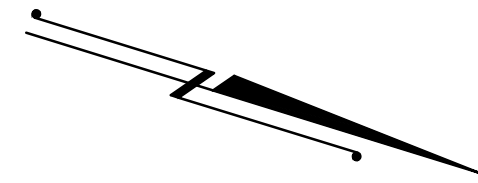
Natalie L. Shearer, M.S., QEP  
Senior Ecologist  
AECOM  
T: 412-503-4595  
M: 412-694-8971  
E: [natalie.shearer@aecom.com](mailto:natalie.shearer@aecom.com)



Brandon M. Walker, PE  
Project Manager  
AECOM  
T: 412-503-4554  
M: 412-522-9566  
E: [brandon.walker@aecom.com](mailto:brandon.walker@aecom.com)

**enclosures:** Erosion and Sediment Control Plan Drawing(s)

**cc:** Doug Scott, PE, SPLC Project Manager  
Robert Wooten, SPLC Land and Permitting Manager



FEMA ZONE A  
100 - YEAR FLOODPLAIN  
SEE FIRM PANEL: MAP NUMBER 42003C0285H  
EFFECTIVE DATE: SEPTEMBER 26, 2014

IMPACT AREA (ACRES)	
PERMANENT	TEMPORARY
0	0.770

REFERENCES:

1. FLOODPLAIN SPECIAL FLOOD HAZARD AREA OBTAINED FROM NATIONAL FLOOD HAZARD LAYER, FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)
2. TOPOGRAPHIC SURVEY DATA PROVIDED BY PERCHERON LLC, 2016-2017
3. WETLAND INVESTIGATION WAS COMPLETED BY AECOM FROM FEBRUARY 2016 TO MAY 2017

File name: \\projects\1747\shelly\40488888 - FALCON-000-WORK\911-ENVIRONMENTAL\20-SHEETS\PENNSYLVANIA\FLOODPLAIN CROSSINGS\FC\_PLAN05.DWG  
 Last saved by: TOSHIMA,MOHONEY (6/8/2018 4:15 PM) Last Plotted: 2018-08-08 (6/8/2018 4:48 PM)

- |       |  |  |                               |
|-------|--|--|-------------------------------|
| 1,550 | EXISTING CONTOURS (INDEX)                    |  | PROPOSED PIPELINE             |
|       | EXISTING CONTOURS (INTERMEDIATE)             |  | PROPOSED LIMIT OF DISTURBANCE |
|       | EXISTING PROPERTY LINE                       |  | ACCESS ROAD CENTERLINE        |
|       | EXISTING STREAM                              |  | WATERSHED BOUNDARY            |
|       | EXISTING WETLAND                             |  | FLOODPLAIN                    |
|       | SOIL TYPE BOUNDARY AND SOIL BOUNDARY         |  | FLOODPLAIN IMPACT             |
|       | LAND USE TYPE BOUNDARY AND LAND USE BOUNDARY |  |                               |
|       | TREE/BRUSH LINE                              |  |                               |

GENERAL NOTES:

REV NO	DATE	DESCRIPTION OF REVISION	CHK	APP

FALCON ETHANE PIPELINE SYSTEM  
HOUSTON TO JUNCTION

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FLOODPLAIN MAP 05		UNT TO POTATO GARDEN RUN	
ALLEGHENY COUNTY		PENNSYLVANIA	
SCALE	1"=50'	DATE	08/07/18
DRAWN	TLM	SPLC-GOM-AE-SD120084	REVISION 0

**Requirement Q**  
Risk Assessment

### **Risk Assessment**

Proper Best Management Practices will be followed during construction to reduce or eliminate issues associated with flooding and sedimentation. The floodplain management analysis did not indicate any degree of increased risk to life, property, or the environment. As a result, the engineers determined that a risk assessment was not necessary for this Project.

## **Requirement R**

### Professional Engineer's Seal and Certification



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**PROFESSIONAL ENGINEER'S SEAL AND CERTIFICATION**

I, Andrew R. Gullone, do hereby certify pursuant to the penalties of 18 Pa. C.S.A., Section 4904 to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications and reports has been prepared in accordance with accepted engineering practice, is true and correct, and is in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection.

The proposed Falcon Ethane Pipeline System within Allegheny County, Pennsylvania involves no permanent water obstructions or encroachments. Temporary impacts are to be limited to stream and wetland crossings of duration only long enough to allow pipeline construction. All wetlands and waterways are to be restored to original contours and land cover to the extent feasible.

Engineer Name (typed): Andrew R. Gullone

Registration Number: PE 078979

Signature:

Date: 18-DEC-2018

