

ATTACHMENT 14

STORMWATER MANAGEMENT ANALYSIS

The proposed Project has been designed to satisfy Pennsylvania's stormwater management requirements and has incorporated best management practices identified in the Pennsylvania Stormwater Best Management Practices Manual. Stormwater will be managed during construction activities in accordance with the Project's Erosion and Sediment Control Plan. The Project does involve the construction of above ground stations and valve settings that will require grading, permanent access roads, and other impermeable surfaces, however these are all located outside of wetlands, streams, and the FEMA floodway. All of these sites are designed to manage stormwater runoff in accordance with the Pennsylvania Stormwater Best Practices Manual and are discussed and presented within the Project's Erosion and Sediment Control Plan.

Coordination with the local municipalities was initiated with letters and project maps sent between the dates of November 10 and December 22, 2015. As part of that process, the municipalities were requested to respond with any concerns regarding the proposed Project and its consistency with their comprehensive plans and/or ordinances.

FLOODPLAIN MANAGEMENT ANALYSIS

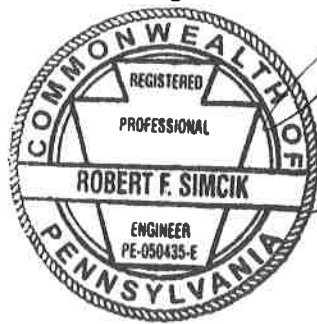
As presented in the Environmental Assessment (Attachment 11), the proposed Project does cross floodways delineated on FEMA maps. However, the Project will not involve the construction of any aboveground structures within these mapped floodways nor will the Project result in any change in the storage capacity of the floodways. All floodways temporarily impacted by the Project will be restored to their pre-existing contours and no additional/new fill will be placed in the floodways. There are no permanent impacts to FEMA floodways as a result of the proposed Project.


Coordination with the local municipalities was initiated with letters and project maps sent between the dates of November 10 and December 22, 2015. As part of that process, the municipalities were requested to respond with any concerns regarding the proposed Project and its consistency with their comprehensive plans and/or ordinances. A summary of the initial stormwater and floodplain management correspondence is included in this attachment as Table 14-1. Following Table 14-1 are copies of the consistency letter requests, delivery confirmations, and responses received to date.

A portion of the proposed Twin Oak Station modification in Delaware County would be located within a PADEP 50-foot floodway. However, this particular floodway is considered waived from a PADEP Chapter 105 permit requirements as it drains less than 100 acres and represents a stormwater drain. The impacts to the 50-foot

floodway are quantified within the aquatic resource impact tables located in Attachment 11. Furthermore, the Project will implement a Post-Construction Stormwater Plan to ensure that increases in runoff or changes in stormwater flows do not occur. As such, Project impacts to the PADEP 50-foot floodway as a result of the Project would not result in adverse effects and would be negligible. A copy of the E&S Plan and PCSP for the Twin Oaks Station expansion is provided Attachment 12.

"I, Robert F. Simcik, do hereby certify pursuant to the penalties of 18 Pa. C.S.A Sec. 4904 to the best of my knowledge, information and belief, that the information above, is true and correct, and is in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection."




Robert F. Simcik, P.E.
Professional Engineer No. PE050435E

**Table 14-1
PPP Summary of Stormwater Plan and Floodplain Consistency Correspondence
for SERO Counties**

County	Municipality	Date Initial Letter Sent	Initial Delivery Confirmation	Follow-up Letter Sent	Follow-up Delivery Confirmation	Response Received	Stormwater Plan Consistent	Floodplain Consistent	
Chester	East Goshen	11/18/2015	11/19/2015	N/A	N/A	12/7/2015	TBD	Y	
	East Nantmeal	11/18/2015	11/19/2015	N/A	N/A	12/7/2015	TBD	TBD	
	East Whiteland	12/3/2015	12/4/2015	2/8/2016	2/9/2016	Pending	TBD	TBD	
	Elverson	11/18/2015	11/19/2015	N/A	N/A	11/25/2015	N	Y	
	Upper Uwchlan	11/18/2015	11/23/2015	2/8/2016	2/9/2016	Pending	TBD	TBD	
	Uwchlan	11/18/2015	11/19/2015	N/A	N/A	12/10/2015	TBD	Y	
	Wallace	11/18/2015	11/19/2015	2/8/2016	2/9/2016	Pending	TBD	TBD	
							3/1/16 - More information requested		
	West Goshen	11/18/2015	11/19/2015	N/A	N/A		TBD	TBD	
	West Nantmeal	11/18/2015	11/23/2015	N/A	N/A	12/17/2015	Y	Y	
	Westtown	11/18/2015	11/19/2015	N/A	N/A	12/7/2015	Y	Y	
						2/17/2016 More information requested			
West Whiteland	11/18/2015	11/19/2015	2/8/2016	2/9/2016		TBD	TBD		
Delaware	Aston	11/18/2015	11/19/2015	2/8/2016	2/9/2016	2/25/2016	Y	Y	
	Brookhaven	11/18/2015	11/19/2015	2/8/2016	2/9/2016	Pending	TBD	TBD	
	Chester	11/18/2015	11/19/2015	2/8/2016	2/9/2016	Pending	TBD	TBD	
							TBD - Requires Grading Permit for Stormwater Management Consistency Review		
	Edgmont	11/18/2015	11/19/2015	N/A	N/A	1/19/2016		Y	
	Middletown	11/18/2015	11/19/2015	2/8/2016	2/9/2016	2/12/2016	N	Y	
	Thornbury	11/18/2015	11/19/2015	2/8/2016	2/9/2016	2/17/2016	TBD	Y	

Notes:

N/A = no additional follow-up was necessary because a response was received prior to follow-up letters going out in February 2016.

TBD = to be determined

Table 14-1
PPP Summary of Stormwater Plan and Floodplain Consistency Correspondence
for SERO Counties

	Upper Chichester	11/18/2015	11/19/2015	N/A	N/A	None Required - No Act 167 Plan	N/A	N/A
--	------------------	------------	------------	-----	-----	------------------------------------	-----	-----

Notes:
N/A = no additional follow-up was necessary because a response was received prior to follow-up letters going out in February 2016.
TBD = to be determined