TETRA TECH

December 2, 2016

By FEDERAL EXPRESS

Mr. Edward J. Muzic, P.E.
Civil Engineer Manager
Department of Environmental Protection
Waterways and Wetlands – South Central Regional Offices
909 Elmerton Avenue
Harrisburg, PA 17110

Re: DEP File E21-449
Technical Deficiency Response
Chapter 105 Dam Safety and Waterway Management Joint Permit Application
Sunoco Pipeline L.P. – Pennsylvania Pipeline Project (Mariner East II)
Lower Mifflin, Upper Frankford, Lower Frankford, North Middleton, Middlesex, Monroe, Silver Spring, Upper Allen, Lower Allen Townships, Cumberland County

Dear Mr. Muzic:

On behalf of our client, Sunoco Pipeline L.P. (SPLP), Tetra Tech, Inc. provides the following responses to the Pennsylvania Department of Environmental Protection (DEP) Technical Deficiency letter dated September 6, 2016, regarding the Chapter 105 Joint Permit Application (Joint Permit Application) for the Pennsylvania Pipeline Project (Project or PPP as defined in the application). SPLP has had minor revisions to the proposed workspaces since submittal of the original application. These revisions have occurred as result of preparing a response to these technical deficiencies, landowner requests, further reduction of impacts to aquatic resources, or minor limit of disturbance (LOD) changes to facilitate construction. The supporting attachments represent a revision of the Joint Permit Application that not only addresses the DEP's technical deficiencies, but also provides revised sections that reflect the most current Project areas. The attachment includes all necessary components of a complete application, however, it excludes previously submitted aquatic resource reports. Please consider the previously submitted aquatic resource reports as part of this application revision. We are providing two hard copies and three CDs of the revised application.

For ease of your review, each DEP item is set forth verbatim below, followed by a narrative response with supporting attachments.

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Comments and Responses to September 6, 2016 Technical Deficiency Letter

CU 1	Comprehensive Environmental Evaluation - The following technical deficiencies are related to the overall project comprised by the 17 Chapter 105 Water Obstruction and Encroachment permit applications associated with this pipeline. Please provide the Department with a Comprehensive Environmental Evaluation of the Entire Pipeline Project as a Whole ("Comprehensive Environmental Evaluation") which at a minimum includes the following:	NA – Heading
CU 1.a	Use the Environmental Assessment Form (3150-PM- BWEW0017, 2/2013) as a guide and provide a detailed narrative and other appropriate documentation that comprehensively evaluates the project as a whole under each of the categories therein (Part 1 – Resource Identification; Part 2 – Project Description – including all the analyses listed in the form, as well as in 25 Pa. Code §§ 105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25 Pa. Code § 105.15.	A Comprehensive Evaluation of Compliance and an evaluation of Resources Identification and Project Impacts for the Project has been added to the application materials and is located in Attachment 11, Parts 1 and 2. This Comprehensive Evaluation of Compliance references application materials that apply to each requirement pursuant to 25 Pa. Code § 105.18a and associated referenced regulations, including 25 Pa. Code §§ 105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25 Pa. Code § 105.15.
CU 1.b	The Comprehensive Environmental Evaluation should also provide a detailed narrative and other appropriate documentation that comprehensively evaluates the project as a whole for compliance with the requirements associated with the Department's review of the application listed in 25 Pa. Code § 105.14 in its entirety, with particular emphasis on:	A Comprehensive Evaluation of Compliance for the Project has been added to the application materials and is located in Attachment 11, Enclosure E, Part 1. This Comprehensive Evaluation of Compliance references application materials that apply to each requirement pursuant to 25 Pa. Code § 105.18a and associated referenced regulations, including 25 Pa. Code § 105.14.
CU 1.b.i	Antidegration Analysis - Prepare and submit an analysis and information that addresses consistency with State antidegradation requirements contained in Chapters 93, 95 and 102 (relating to water	An Antidegradation Analysis consistent with 25 Pa. Code § 105.14(b)(11) has been prepared and is provided in Attachment 11, Enclosure E, Part 5.

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	quality standards; wastewater treatment requirements; and erosion and sediment control) and the Clean Water Act (33 U.S.C.A. § § 1251—1376) for this entire project and other potential or existing projects. 25 Pa. Code § 105.14(b)(11).	
CU 1.b.ii	Secondary Impact Analysis – Prepare and submit an analysis and information that addresses secondary impacts associated with but not the direct result of the construction or substantial modification of the water obstruction or encroachment in the areas of the entire project and in areas adjacent thereto and future impacts associated with water obstructions or encroachments, the construction of which would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose. 25 Pa. Code § 105.14(b)(12).	A secondary impact analysis consistent with 25 Pa. Code § 105.14(b)(12) has been prepared and is provided as part of the Resource Identification and Project Impacts in Attachment 11, Enclosure E, Part 2.
CU 1.b.iii	Project Wide Cumulative Impacts Analysis. Prepare and submit an analysis and information that addresses the cumulative impact for this entire project and other potential or existing projects. As part of this analysis please evaluate whether numerous piecemeal changes associated with all the chapter 105 applications related to this pipeline project may result in a major impairment of the wetland resources. The analysis must be undertaken for each alternative prepared for the proposed pipelines and facilities of Mariner East II, on a statewide basis and must be completed for the entire project, as a whole referencing each of the applications for the entire project. 25 Pa. Code §§ 105.14(b)(14); and 105.15.	A stand-alone Cumulative Impacts Analysis has been added to the application materials and is located in Attachment 11, Enclosure E, Part 6.

CU 1.b.iv	Comprehensive Evaluation of Compliance with 25 Pa. Code § 105.18a. Prepare and submit an analysis and information that evaluates the project as a whole with all the requirements found in 25 Pa. Code § 105.18a for each wetland or wetland complex in or along the project area as a whole. 25 Pa. Code § 105.18a.	A Comprehensive Evaluation of Compliance for the Project has been added to the application materials and is located in Attachment 11. This Comprehensive Evaluation of Compliance cross-references the application materials that address each requirement in 25 Pa. Code § 105.18a.
CU 1.b.v	Comprehensive Alternatives Analysis, Avoidance and Minimization and Mitigation. The applicant needs to demonstrate, that the alternative/s chosen for the entire project will avoid cumulative impacts to the maximum extent practicable, and where such impacts are not avoidable, describe in detail with appropriate supporting documentation, how such impacts will be minimized and mitigated to the satisfaction of the Department. [25 Pa Code §§ 105.1, 105.13(e)(1)(viii)-(x); 105.14(b); and 105.15-105.20a.]	A comprehensive Alternatives Analysis has been added to the application materials to address this comment and is located in Attachment 11, Enclosure E, Part 3. An Impact Avoidance, Minimization, and Mitigation Procedures document has also been added to address this comment, in Attchment 11, Enclosure E, Part 4. A Cumulative Impacts Analysis has been added to the application materials to address this comment and is located in Attachment 11, Enclosure E, Part 6.
CU 2	The HDD Inadvertent Return Contingency Plan includes profiles identifying Geotechnical profiles; however, no analysis has been provided on the risk of an inadvertent return occurring. Provide an analysis on the risk of an inadvertent return occurring for all proposed HDD crossings. Include in-depth detail, discussion, and data in the analysis of the risk of a return occurring. [25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(b)(4), 105.18a(b)(5), 105.14(b)(4), 105.14(b)(11)]	The revised Inadvertent Return Assessment, Prevention, Preparedness and Contingency Plan (IR Plan) provided in Attachment 12, Tab 12C includes an IR risk assessment for each of the HDDs.
CU 2.a	Provide information/details on previous HDD activities on the prior Mariner East pipeline project where IRs occurred. At a minimum this should include, a topographic map with locations and	An HDD Risk Assessment is included as part of the revised IR Plan provided in Attachment 12C. The assessment discusses previous inadvertent returns (IR)

	latitude/longitude of each occurrence, description of event, amount of discharge, whether the discharge entered waterways and/or wetlands, mitigation/clean-up measures taken, etc.	and provides the data and analysis requested (see Appendix C of IR Plan).
CU 2.b	A stand-alone attachment should be created to address the pre-boring geologic evaluation of the existence and potential to impact local drinking water supplies or aquifers around the boring location. The plan needs to include what measures will be employed to verify that no supplies or aquifer are impacted (i.e. pre and post water quality and quantity analysis). The plan should specify what notifications and remediation measures will be employed if there are impacts.	Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan: the Water Supply Assessment, Preparedness Prevention and Contingency Plan, the IR Plan, and Void Mitigation Plan for Karst Terrain and Underground Mining. These supplemental plans are provided in Attachment 12. The Water Supply Plan provides for the assessment of the existing public and private water supplies in or along the Project, as well as identifies prevention and preparedness measures to be implemented to protect those supplies. The IR Plan outlines the preconstruction activities implemented to ensure sound geological features are included in the drill profile, the measures to prevent impact, and the preparedness plan if an impact were to occur. These plans are provided in Attachment 12.
CU 3	EV wetlands are defined as EV waters by Chapter 93. Therefore, explain the measures the applicant will implement to comply with the antidegradation requirements of the Department's water quality standards program.[25 Pa Code §93.4c(b); §93.4c(b)(2); §93.1 (defn. of surface water of exceptional ecological significance); §105.14(b)(11); §105.18a(a)(4); 24 Pa.B. 922 (February 12, 1994)(Incorporation of the Department's Existing Wetlands Protection Program into Water Quality Standards Program)].	An Antidegradation Analysis, provided in Attachment 11, Enclosure E, Part 5, fully explains the measures that SPLP will implement to comply with the antidegradation requirements of DEP's water quality standards program.
CU 4	The application states that the second pipeline will be 16 inches in diameter, while other applications	In previous submissions and coordination documents, the diameter of the second pipeline had not yet been

	related to this project state that the second pipeline could be up to 20 inches in diameter. Which is correct? [25 Pa. Code §105.13(e)(1)(iii)(A)]	determined by engineering, but SPLP understood the maximum possible size would be 20 inches in diameter. SPLP has completed the initial engineering details for the necessary capacities of the second line and has determined that the second pipe will be 16 inches in diameter. The application has been revised to reference a 16-inch pipeline.
CU 5	List the types and amounts of emissions to satisfy question 13.0.1 of the General Information Form. [1300-PM-BIT0001 5/2012 Instructions]	Question 13.0.1 of the General Information Form in Attachment 1 has been revised to address this comment. The overall Project will involve operational emissions, but no operational emissions will be emitted in Cumberland County.
CU 6	The Application and GIF have different titles for M.L. Gordon. An application shall be signed by the owners of the dam or reservoir, water obstruction or encroachment, or the persons exercising primary responsibility for the dam or reservoir, water obstruction or encroachment. In the case of a partnership, one or more members of the partnership authorized to sign on behalf of the entire partnership shall sign the application. In the case of a corporation, it shall be signed by the president, vice president or other responsible official empowered to sign for the corporation. Provide consistent titles for Mr. Gordon and demonstrate that he is authorized to sign the Application. [25 Pa. Code §§105.13(i) and 25 Pa. Code §§106.12(f)]	The Application has been revised to provide a consistent title for M.L. Gordon. A "Delegation of Authority" letter authorizing Mr. Gordon to sign the Application on behalf of the partnership is provided with the Joint Application Form in the Application.
CU 7	Provide a PNDI search clearance letter from the Pennsylvania Game Commission for threatened and endangered species under their jurisdiction. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]	The Pennsylvania Game Commission (PGC) provided a PNDI search clearance by letter dated June 8, 2016. A copy of this letter is provided in Attachment 6.

CU 8	Provide clearance or approval from the Pennsylvania Historical and Museum Commission (PHMC) for cultural, archeological, and historic resources for the proposed water obstructions and encroachments and areas necessary to construct the water obstructions and encroachments. [25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(5), 105.15(a), 105.14(b)(4)]	While DEP is required to consider potential impacts to historic resources under 25 Pa. Code Chapter 105 when DEP conducts reviews of a water obstruction, encroachment or dam permit application, none of the regulations or guidance referenced in DEP's comment require SPLP to provide clearance or approval from the PHMC as part of a Chapter 102 or Chapter 105 permit application. Furthermore, as noted in a letter from Alexandra C. Chiaruttini, Esq., DEP's Chief Counsel concerning the SPLP Pennsylvania Pipeline Project, "the [Pennsylvania] History Code does not authorize our agency or any Commonwealth agency to stop the processing of permits solely due to possible or actual presence of archaeological or historic resources, unless the agency's enabling legislation contains specific statutory authorization for such action. DEP does not have such authorization here." A copy of the February 1, 2016, letter from Ms. Chiaruttini is provided in Attachment 4. See also Pennsylvania History Code §508(a)(4). Accordingly, SPLP requests that DEP continue its review of SPLP's applications. SPLP will continue to work with the PHMC to ensure that impacts to cultural resources are avoided where possible. In addition, SPLP has included with its Chapter 102 application a Cultural Resources Unanticipated Discovery Plan to be implemented during construction that outlines the protocols SPLP will follow if SPLP unexpectedly encounters archaeological or historic resources, including notification to DEP and PHMC and cessation of earth disturbance.

CU 9	The project description provided in the Cultural Resource Notice states that the second pipeline is to be installed within 5 years of the first pipeline. The project description provided in the application does not discuss this timeframe. Regarding this item: Revise the application to discuss if the pipelines will be installed at the same time, or on different schedules. [25 Pa. Code §§105.13(e)(1)(iii)(A), 105.13(e)(1)(iii)(B), 105.301(7), 105.15(a), 105.14(b)(4), 105.18a, 105.21(a)(1), 105.13(e)(1)(ix)]	The Project Description in Attachment 9 to the Application has been updated to reflect the timing of the installation of the 20-inch and the 16-inch pipeline. The two pipelines will be installed during the same time period, with the 20-inch pipeline preceding the 16-inch pipeline. For safety purposes, the installation would be staggered by what is estimated to be no more than 60 days. At some HDDs with longer drills, however, the time period between installation of the two pipelines may exceed 60 days. Both pipelines will be installed within the same limit of disturbance so there would be no additional, temporary disturbance resulting from a second separate installation. Any temporary stabilization required would be implemented in accordance with Project's E&S Plans.
CU 9.a	If the pipelines are proposed to be installed at separate times, revise the application to clearly indicate this, and to identify the permanent and temporary impacts from the second pipeline installation. Please be advised that if issued the permit may expire before construction is completed on any second line.	The Project Description in Attachment 9 to the Application has been updated to reflect the timing of the installation of the 20-inch and the 16-inch pipeline and any permanent and temporary impacts from the second pipeline installation.
CU 9.b	If the pipelines are proposed to be installed at separate times, revise your alternatives analysis to evaluate the feasibility of installing the two pipelines concurrently with one another to avoid and minimize impacts.	Both pipelines would be installed during the same construction period, as described above. Accordingly, the Alternatives Analysis has not been revised to evaluate this issue.
CU 9.c	You may need to revise you fee calculation spreadsheets to account for the additional, temporary disturbance resulting from a second, separate installation.	The 20-inch pipeline would be installed first, followed by the 16-inch line. Any temporary stabilization required would be implemented in accordance with the Project's E&S Plans. Both pipelines will be installed within the same limit of disturbance as set forth in the permit

		application, so there will be no "additional, temporary disturbance resulting from a second separate installation". Therefore, no revision of the fee calculation spreadsheet is necessary.
CU 9.d	Your Erosion and Sedimentation Control Permit Application (ESG 05 000 15 001) should also reflect the two construction sequences if two separate construction periods are proposed.	The 20-inch pipeline would be installed first, followed by the 16-inch line. Any temporary stabilization required would be implemented in accordance with the Project's E&S Plans. Both pipelines will be installed within the same limit of disturbance and in the same construction period.
CU 10	Provide a detail that shows how flumes or other in-stream supports are used for temporary stream crossings as mentioned in the Temporary Stream Crossing detail and identify where each method will be used. [25 Pa. Code §§105.13(g)]	Temporary crossings of streams are accommodated by installation of the timber mat, culvert, or railcar equipment bridges as detailed by the standard typical drawings and notes for these types of crossings provided within the E&S Plan (Attachment 12). The contractor may choose from these temporary crossing methods.
CU 11	Provide site plans that depict proposed work for each ATWS within a floodway or floodplain. These plans should include at a minimum the duration of proposed activities, the expected layout, E&S controls, and size or quantity of materials or structures proposed. [25 Pa. Code §105.13(e)(1)(i)(C)]	The E&S Plan in Attachment 12 has been revised to identify the proposed work. The associated erosion and sediment controls used to minimize the potential for discharge of fill material to the stream are provided on the plan drawings and/or as referenced to the E&S plan standard typical details. The duration of ATWS use will be consistent with the duration of construction.
CU 12	A number of drawings in the package, for example the auger bore drawings, state that the plans are for permitting purposes only. The plans, specifications and reports in the application are part of a permit once a permit is issued and must be followed. Remove this language from the plans and provide final plans. [25 Pa. Code §§105.13(e), 105.44(a)]	The "permitting purposes" language has been removed. All drawings and maps provided in the application are considered to be final plans.
CU 13	The auger bore drawings reference cathodic protection being installed. Provide plans and/or	The Project Description provided in Attachment 9 includes a narrative outlining SPLP's cathodic protection

	details for any proposed cathodic protection and identify on the plans where and which type of cathodic protection is proposed to be installed. [25 Pa. Code §§105.3(4), 105.11(a), 105.13(e)(1)(i)(C)]	plans. A typical cathodic test station detail has been added to the E&S Plan Sheets in Attachment 12.
CU 14	Where cathodic protection is proposed to be installed in wetlands or other areas where vegetation is proposed to be undisturbed or replanted, identify how this cathodic protection will be maintained and replaced without vegetative disturbance. [25 Pa. Code §§105.15(a), 105.13(e)(1)(ix), 105.18a]	The Project Description provided in Attachment 9 includes an updated narrative outlining SPLP's cathodic protection plans.
CU 15	For all Bore and HDD locations, identify where all pipe pull back, or assembly, or other areas where the pipe will be laid out, and where all construction and staging areas are located. Identify any temporary crossings or impacts for these areas to streams, wetlands, and floodways. Revise the application accordingly to include these impacts, including site-specific plans depicting the impacts and proposed temporary matting. [25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii)]	To reduce overall impacts to the landscape and, in particular, wetlands and streams, pullback areas are sited within the same workspaces designed for the open cut installation of the pipeline to the maximum extent practicable. Pullback areas not proposed within the workspaces needed to install the pipelines via open cut are accommodated by adding Additional Temporary Workspace (ATWS). Although avoided to the maximum extent practicable, if streams and wetlands are crossed by the pullback activity within the ATWS, then temporary crossings or impacts, such as temporary bridges, are identified on the site-specific, E&S Plan sheets. Additional temporary matting and bridges to accommodate the pullback activity including pipe layout and assembly in the open cut areas are also identified on the Aerial Site Plans and the E&S Plan sheets. Temporary bridges and matting will be installed and restored in accordance with the standard typical details provided within the E&S Plan in Attachment 12. The impacts of these activities occur within the permanent and temporary workspaces within the LOD.

CU 16	The site plan sheets and E&S plan sheets identify the floodway which appears to be measured from the centerline of the stream as opposed to measuring from the top of bank for the 50-feet assumed floodway boundary. Provide floodway boundaries on all plan drawings that adhere to the definitions in Chapter 105 by providing the FEMA mapped floodway boundary, in areas absent a FEMA mapped floodway, the floodway boundary measured 50 feet landward from the top of bank, or in areas absent a FEMA mapped floodway a floodway boundary with evidence provided that the assumed 50 feet floodway is not accurate. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.1]	In absence of a FEMA NFHL Floodway, the PA 50-foot floodways have been created by buffering the stream on each side of its centerline by one-half the bank width of the stream at the crossing plus 50 feet. For example, a stream that has a 5-foot bank width would be buffered by 52.5 feet on each side the stream's centerline, to ensure both the bank width and the 50-foot setback from the bank was encapsulated within the Chapter 105 floodway, as per the definitions identified in Chapter 105. FEMA NFHL data was downloaded and re-analyzed for this Project on September 27, 2016. The 105 and 102 E&S Plans have been checked to assure consistent presentation of these areas.
CU 17	The Typical Wetland Crossing detail on the E&S plans indicates soil will be stockpiled in the wetland along the trench. Revise the detail to include a means of separating the stockpiled soil from the wetlands, such as geo-fabric and matting, to ensure that stockpiled soil will be completely removed and impacts will be minimized. [25 Pa. Code §§105.423, 105.18a(a), 105.18a(b), 105.15(a), 105.14(b)(4), 105.14(b)(11), 105.14(b)(13)]	The standard typical detail has been revised to show topsoil segregation. The standard typical detail also notes that topsoil and wetland spoils are to have a physical separation to ensure full restoration and to minimize impacts. Separation may be achieved by geo-fabric, physical space, or matting.
CU 18	The typical wetland crossing details shown on the E&S plans indicates trench breakers are to be installed in the trench in the wetlands; however it is not clear what trench breakers are or whether trench plugs are intended. Revise this detail to identify whether trench plugs are intended by this term or provide a detail for trench breakers. In addition, if trench plugs are proposed to maintain wetland	The standard typical detail on the E&S plans has been revised to better detail ditch trench plug installation (Attachment 12). Additionally, the trench plugs have been moved to the outside of the wetland boundaries and a note added that additional trench plugs will be installed for long open-cut wetland crossings. The project's Environmental Compliance Program team will ensure appropriate spacing.

	hydrology, revise the detail to include trench plugs within the wetland for long wetland crossings and specify the distance increments. Furthermore, the E&S plan drawings depict trench plugs which are inconsistent with the detail. Revise the site plans to be consistent with the detail. [25 Pa Code §105.18a(a)(1) & §105.18a(a)(3) & §105.18a(a)(4) & §105.18a(a)(5) & §105.18a(b)(2) & §105.18a(b)(3) & §105.18a(b)(4) & §105.18a(b)(5) & §105.15(a)(1) & §105.14(b)(4) & §105.14(b)(11) & §105.14(b)(13) & §105.13(e)(1)(i)]	
CU 19	Installation of the trench plugs as depicted in the Trench Plug Detail is likely to result in adverse impacts to the hydrology of waters of the Commonwealth. Provide a revised detail showing the trench plug continuing to the bottom of the trench instead of ending at the top of the bedding material. [25 Pa. Code §§105.18a, 105.15(a)]	The typical standard trench plug detail provided within the E&S Plan provided in Attachment 12 has been revised to show the trench plug continuing to the bottom of the trench.
CU 20	The Typical Wetland Crossing detail on the E&S plans states that the detail does not apply to active cultivated or rotated cropland. Revise the detail to apply to all wetland crossings or provide a separate detail for wetland crossings in active cropland. [25 Pa. Code §§105.18a, 105.15(a)]	The note for this standard typical detail has been removed so that the detail is applicable to all wetland crossings.
CU 21	Provide a description of the expected duration each temporary stream crossing will remain in place. If the temporary stream crossing will be in place for greater than one year, then a risk analysis will be necessary. [25 Pa. Code §§105.13(1)(iii)(A), 105.14(b)(1), 105.14(b)(3)]	The temporary stream crossings will remain in place for no greater than one year.
CU 22	Identify the proposed provisions for shut-off in the event of break or rupture for each crossing. Provide	The revised Project Description provided in Attachment 9 discusses block valves, their location, and the siting

	locations and description of how this action will be completed in the event a break or rupture occurs. [25 Pa. Code § 105.301(9)]	criteria that provides shutoff provisions. Values are shut off remotely or manually. Block valves are also depicted on the aerial site plans provided in Attachment 7, Tab 7A.
CU 23	Provide county specific information within the project description. [25 Pa. Code §§105.13(e)(1)(iii)]	The Project Description is intended to encompass the Project as a whole; however, it has been revised to include some additional county-specific information. Other components of the application, particularly Attachment 11 (Aquatic Resources Tables, Enclosures A, B, C, and D) provide detailed information specific to the resources and impacts in the county.
CU 24	How were the disturbance fees calculated? Neither the summation of Temporary disturbance on Tables 2, and 3 nor the summation of Permanent disturbance equate to the values presented at the end of Table 1 (from Tab 7A) and reported on the fees calculation worksheet. Clarify this discrepancy. [25 Pa. Code §§105.13(c)(2)(iii)(A)]	The totals presented in Tables 2, 3, and 4 in Attachment 11 have been revised to ensure that the proposed impacts are accurate and consistent with the values presented in Table 1 and on the fee calculation worksheets on the attached revised permit application documents.
CU 25	Provide letters of approval from North Middleton Water Authority, Middlesex Municipal Water Authority, United Water of PA, and PA American Waters in order to satisfy Question 16.0.2 of the GIF and coordinate with the Department's Water Supply and Watershed Management Programs. [25 Pa. Code §§105.21(a)(1)]	The PPC Plan in Attachment 12, Tab 12A has been supplemented with a Water Supply Assessment, Preparedness Prevention and Contingency Plan (Attachment 12, Tab 12B), which addresses all correspondence with water and sewer authorities, including letters to the North Middleton Water Authority, Middlesex Municipal Water Authority, United Water of PA, and PA American Waters. The GIF question has been updated, and final agreements between the contractor and the water supplier can be supplied once they are in place. The Project does not require any permanent water supplies.
CU 26	Regulations 25 Pa. Code Sections 265.51 and 265.56 listed on page 3 of the PPC Plan do not exist. Correct the PPC Plan to demonstrate proper	The PPC Plan in Attachment 12, Tab 12A has been revised to remove the reference and cite appropriate regulations where necessary.

	compliance. [25 Pa. Code §§105.21.(a)(1); 91.33(b)]	
CU 27	Attachment 1 of Tab 1 indicates that the construction contractor is to finalize contracts with the Public Water Supplies. Explain what this statement means and provide the proper coordination to satisfy Questions 14.0 through 16.0.2 of the GIF. [General Information Form 1300-PM-BIT0001 5/2012]	The water suppliers listed in question 16.0.2 of the GIF are those preliminarily identified as potential temporary water suppliers to facilitate hydrostatic testing. The PPC Plan in Attachment 12, Tab 12A has been supplemented with a Water Supply Assessment, Preparedness Prevention and Contingency Plan which addresses all correspondence with water and sewer authorities, including letters to the North Middleton Water Authority, PA American Water, and Huntingdon Area Water and Sewage Authority. The GIF question has been updated, and final agreements between the contractor and the water supplier can be supplied once they are in place. The Project does not require any permanent water supplies. As part of the Delaware and Susquehanna River Basin Commission's approval process, the SRBC/DRBC examines the potential impacts to Public Water Suppliers. Thus, any SRBC/DRBC approved water withdrawal locations will meet conditions such that there are no negative impacts to public water supply intakes. Public water supplies and the protection thereof are further discussed in Tab 12B, the Water Supply Assessment, Preparedness, Prevention and Contingency Plan.
CU 28	Section F of the Application indicates the professional engineer's seal and certification is N/A. Plans, specifications and reports accompanying applications for any water obstructions or encroachments which would pose a threat to human life or a substantial potential risk to	The N/A label has been removed from Section F of the Application.

	property shall be affixed with seal and signature of a registered professional engineer. The seal and certification for Chapter 105 are provided in Tab 7. Remove the N/A label from Section F. [3150-PM-BWEW0036A Rev. 3/2013 Instructions]	
CU 29	A water obstruction and encroachment permit may be required for the proposed water withdraws and discharges. [25 Pa. Code §§105.3(a)(4), 105.11(a), 105.13(e)(1)(i), 105.13(e)(1)(iii), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(6), 105.301(1), 105.301(7), 105.301(5), 105.301(3), 105.151(1), 105.151(3), 105.161(a)(3), 105.161(4)]	Water withdrawals in Cumberland County (i.e., Letort Spring Run, Locust Creek, and Conodoguinet Creek) will use temporary and above-ground equipment. These water withdrawal locations are labeled on the Chapter 105 drawings. Additional details, including specific equipment configurations are included in the Chapter 102 E&S drawing details, which are referenced in the Chapter 105 drawings. All encroachments and obstructions (e.g., pump pad) are identified on the Chapter 102 drawings and included within the limit of disturbance. SPLP has obtained the Project's DEP PAG-10 General NPDES Discharge Permits (Authorization ID No. PAG1106869 and PAG1105897) to allow discharge of hydrostatic test waters. The permit application captures the details of the mainline and HDD testing discharges including discharge capacity, methods, and structures. All discharge structures are located within the LOD. In addition to the information provided in the PAG-10 permit application, all discharge outfall locations are shown on the Chapter 105 drawings and supporting information such as discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings.
CU 29.a	Provide plans and cross sections indicating pipe size, placement, and locations for all wetlands, streams, floodways and floodplains where the	Water withdrawals in Cumberland County (i.e., Letort Spring Run, Locust Creek, and Conodoguinet Creek) will use temporary and above-ground equipment. The water

	proposed water withdrawal and discharge piping is to be installed.	withdrawal locations are labeled on the Chapter 105 drawings. Additional details, including specific equipment configurations are included in the Chapter 102 E&S drawing details, which are referenced in the Chapter 105 drawings. All encroachments and obstructions (e.g., pump pad) are identified on the Chapter 102 drawings and included within the limit of disturbance. SPLP has obtained the Project's DEP PAG-10 General NPDES Discharge Permits (Authorization ID No. PAG1106869 and PAG1105897) to allow discharge of hydrostatic test waters. The permit application captures the details of the mainline and HDD testing dicharges including discharge capacity, methods, and structures. All discharge structures are located within the LOD. In addition to the information provided in the PAG-10 permit application, all discharge outfall locations are shown on the Chapter 105 drawings and supporting information such as typical discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings. Per a conference call with DEP on 09/27/16, it was agreed that call-out notes will be added on Chapter 102 drawings to refer to typical discharge structure details instead of supplying full cross sections at each outfall location.
CU 29.b	Revise the impact tables to include these impacts.	All water withdrawal and discharge activities will be located within the Project limits of disturbance, and have been accounted for in Tables 2, 3, and 4 provided in Attachment 11. These tables have been revised to accommodate changes in workspace and requests in other comments received from DEP.

CU 29.c	Provide a description and plans of how the water will be discharged or withdrawn, the discharge capacity, the withdraw rate, the methods to be utilized, what equipment and structures are proposed to be placed and utilized in waters of the commonwealth, the length of time obstructions will remain in place.	Letort Spring Run, Locust Creek, and Conodoguinet Creek are the only locations in Cumberland County from which SPLP plans water withdrawals. Water withdrawals from these locations will use temporary and above-ground equipment. These water withdrawal locations are labeled on the Chapter 105 drawings. Additional details, including specific equipment configurations are included in the Chapter 102 E&S drawing details, which are referenced in the Chapter 105 drawings. All encroachments and obstructions (e.g., pump pad) are identified on the Chapter 102 drawings and included within the limit of disturbance. Withdrawal rates from Letort Spring Run will be limited to 350 gpm. Duration of use for Letort Spring Run is expected to be a few weeks. Equipment will be removed from the floodway when not in use and in the event of any flooding. This water source is planned as the source of water to drill and test three HDDs. Note that Letort Spring Run is a Scenic Stream. Use of this site was cleared through DCNR and PA Fish and Boat Commission (see Attachment 11, Enclosure 6). Recommendations from both agencies will be followed. Withdrawal rates from Locust Creek will range from 110 to 560 gpm. Duration of use for Locust Creek is expected to be a few weeks. Equipment will be removed from the floodway when not in use and in the event of any flooding. This water source is planned as the source of water to drill and test four HDDs. Water withdrawal activities for Conodoguinet Creek are being permitted through the SRBC. The surface water withdrawal docket for this water source is expected in

		December 2016. A copy of the approved docket will be made available to DEP. Withdrawal rates from Conodoguinet Creekwill be limited to approved SRBC docket conditions. Conodoguinet Creek is expected to be used intermittently over a period of a few months. Equipment will be removed from the floodway when not in use and in the event of flooding. This water source is planned as the source of water to drill and test one HDD and conduct mainline hydrostatic testing. HDD drilling/testing will be completed weeks to months prior to the mainline hydrostatic testing. SPLP has obtained the Project's DEP PAG-10 General NPDES Discharge Permits (Authorization ID No. PAG1106869 and PAG1105897) to allow discharge of hydrostatic test waters. The permit application captures the details of the mainline and HDD testing dicharges including discharge capacity, methods, and structures. All discharge structures are located within the LOD. The length of time the structures will be used is also captured in the PAG10 permit application.
CU 29.d	Provide cross sections, profiles, and hydraulic analysis for all piping placed in existing stream culverts and along and within stream channels.	No piping associated with this activity will be placed in existing stream culverts or along/within stream channels in Perry County.
CU 29.e	Revise the Environmental Assessment to discuss the impact of the water obstructions and water withdraws from the obstructions on the resources. Where approval is being obtained from the Susquehanna River Basin Commission (SRBC), provide approval from the SRBC for the water withdraws if available.	The Environmental Assessment was updated to capture the impacts of the water obstructions and withdrawals on Locust Creek, Letort Spring Run, and Conodoguinet Creek. Water withdrawal activities for Conodoguinet Creek are being permitted through the SRBC. The surface water withdrawal docket for this water source is expected in

		December 2016. A copy of the approved docket will be made available to DEP.
CU 29.f	Provide documentation of submission of proposed water obstructions and encroachments for these activities to each jurisdictional (PHMC, USFWS, PAFBC, PGC, DCNR) agency and provide clearance from these agencies	SPLP previously submitted a final request for determination letter from USFWS, PFBC, DCNR and PGC where the Project was described consistent with the attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Copies of these final requests have been submitted, and clearances from all four agencies have been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9. Copies of the submissions are located in Attachment 6. While DEP is required to consider potential impacts to historic resources under 25 Pa. Code Chapter 105 when DEP conducts reviews of a water obstruction, encroachment or dam permit application, none of the regulations or guidance referenced in DEP's comment require SPLP to provide clearance or approval from the PHMC as part of a Chapter 102 or Chapter 105 permit application. Furthermore, as noted in a letter from Alexandra C. Chiaruttini, Esq., DEP's Chief Counsel concerning the SPLP Pennsylvania Pipeline Project, "the [Pennsylvania] History Code does not authorize our agency or any Commonwealth agency to stop the processing of permits solely due to possible or actual presence of archaeological or historic resources, unless the agency's enabling legislation contains specific statutory authorization for such action. DEP does not have such authorization here." A copy of the February 1,

		2016, letter from Ms. Chiaruttini is provided in Attachment 4. See also Pennsylvania History Code §508(a)(4). Accordingly, SPLP requests that DEP continue its review of SPLP's applications. SPLP will continue to work with the PHMC to ensure that impacts to cultural resources are avoided where possible. In addition, SPLP has included with its Chapter 102 application a Cultural Resources Unanticipated Discovery Plan to be implemented during construction that outlines the protocols SPLP will follow if SPLP unexpectedly encounters archaeological or historic resources, including notification to DEP and PHMC and cessation of earth disturbance.
CU 30	Sheet 4 of Tab 7A does not depict enough information to determine if Stream S-I86 is impacted by the project. There is a stream data sheet provided, but the stream is not listed in Table 3 of Tab 11. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(i)(A) and (C)]	Stream S-I86 is not proposed to be impacted by the Project and therefore is not listed in Table 3 of Attachment 11. A stream data sheet for every stream in the designated survey corridor is included in the Aquatic Resource Report and Supplements in Attachment 11, Enclosure A, regardless of whether the stream will be impacted by Project construction.
CU 31	The following items pertain to inconsistencies with stream resource identification. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(A)]	NA – Heading
CU 31.a	The bank to bank width for Stream S-K1 is 3 feet in Table 3; however, the stream data sheet in the aquatic resources report lists it as 2.5 feet. Provide the width of the stream at the crossing.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.b	S-BB19 lists bank to bank width in Table 3 as 8 feet, but the stream data sheet indicates 6-10 feet. Provide the width of the stream at the crossing.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.

CU 31.c	S-BB20 lists bank to bank width in Table 3 as 6.5 feet, but the stream data sheet indicates 5-8 feet. Provide the width of the stream at the crossing.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.d	Table 3 of Tab 11 lists the bank to bank width of S-J37 as 15 feet; however, the stream data sheet identifies the bank width as 45 feet. Clarify this discrepancy.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.e	Table 3 of Tab 11 lists the bank to bank width of S-J36 as 15 feet; however, the stream data sheet identifies the bank width as 45 feet. And the water width is listed as 10 feet while Sheet 16 of Tab 7A indicates the OHW is 15 feet. Clarify these discrepancies.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.f	S-BB100 lists bank to bank width in Table 3 as 3 feet, but the stream data sheet indicates 3-5 feet. Provide the width of the stream at the crossing and explain the use of the lower range as the bank width.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.g	There are two stream data sheets for S-I75. What is the purpose of these two different documents? Which of these represents the values listed in Table 3 of Tab 7A?	Stream S-I75 meanders within the survey corridor for approximately 2,775 feet. Two survey points were recorded due to the above average length of the stream in the survey area. A site-specific drawing is provided in Attachment 7, Tab 7D for the stream S-I75 crossing. The site-specific survey data was used to represent the stream widths and lengths and revised accordingly. Table 3 presents the accurate data for stream S-I75.
CU 31.h	Stream S-I57 lists the bank to bank width in Table 3 of Tab 11 as 12 feet; however, the stream data sheet indicates a bank width of 25 feet. Clarify this discrepancy.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.

CU 31.i	Table 3 of Tab 11 indicates that bank to bank width of Stream S-BB10 is 12 feet, but the stream data sheet identifies a bank width of 12 inches. Correct the table to reflect the proper width.	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.j	Stream S-BB7 lists bank width as 5 feet, but stream data sheet indicates 4-6 feet. What is the width at the crossing?	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.k	Stream S-BB5 lists bank width as 3 feet, but the stream data sheet indicates 6-36 inches. What is the width at the crossing, and why use the higher value for stream width?	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.l	Information for Stream S-J12 could not be found in Table 3. There is not sufficient detail for S-J12 on Sheet 34 to determine if there are impacts to the stream. Provide the missing information.	Stream S-J12 is not proposed to be impacted by the Project. The scale of the aerial site plans in Attachment 7, Tab 7A has been revised to provide additional detail so it can be determined that the stream will not be impacted.
CU 31.m	There are two stream data sheets for S-J7. Which of these represents the stream crossing on Sheet 35 of Tab 7A? Provide the relevant information.	As noted in the Aquatic Resources Report, one of the Stream J-7 field data forms represents an upstream survey point and the other represents a downstream survey point. The bank widths varied between 4 feet and 5 feet, and the water depths varied between 3 inches and 6 inches in these two survey locations. The data form for J7 (downstream) represents the crossing location.
CU 31.n	There is no information on Table 3 for Stream S-J8, nor is there sufficient information shown on Sheet 35 of Tab 7A to determine if there are impacts to the stream. Provide the missing information.	Stream S-J8 is not proposed to be impacted by the Project. The scale of the the aerial site plans in Attachment 7, Tab 7A aerial site plans has been revised to provide additional detail so it can be determined that the stream will not be impacted.
CU 31.o	There is no information on Table 3 for Stream S-J6, nor is there sufficient information shown on Sheet 35 of Tab 7A to determine if there are impacts to the stream. Provide the missing information.	Stream S-J6 is not proposed to be impacted by the Project. The scale of the aerial site plans in Attachment 7, Tab 7A has been revised to provide additional detail so it can be determined that the stream will not be impacted.

CU 31.p	There is no information on Table 3 for Stream S-J4, nor is there sufficient information shown on Sheet 35 of Tab 7A to determine if there are impacts to the stream. Provide the missing information.	Stream S-J4 is not proposed to be impacted by the Project. The scale of the aerial site plans in Attachment 7, Tab 7A has been revised to provide additional detail so it can be determined that the stream will not be impacted.
CU 31.q	The stream data sheet for S-I48 does not indicate a water width. What was used to determine the impacts to Stream S-I48?	The stream data sheet for S-I48 has a bank width of 50 feet; the impacts to this stream shown in Table 3 was based on a bank width of 50 feet.
CU 31.r	Stream S-BB83 lists bank width as 12 feet, but the stream data sheet indicates 4-12 feet. What is the width at the crossing, and why use the higher value for stream width?	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.s	Stream S-BB101 lists bank width as 13.5 feet in Table 3, but the stream data sheet indicates 12-15 feet. Why use the average? What is the width of the stream at the crossing?	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
CU 31.t	Stream Data Sheets for S-I77 and S-I90 could not be found. Provide the missing information.	The missing data sheets are now provided within the supplemental information provided in Attachment 11, Enclosure A.
CU 31.u	Temporary impacts for Stream S-I89 on Sheet 3 are shown as zero; however, there is a temporary travel lane crossing the stream. Correct the submission to reflect the proper impacts.	The Travel Lane impacts are considered a temporary impact and are accounted for within the application.
CU 31.v	There is not sufficient information on sheet 4 for S-I86 to determine if the project impacts the stream. Provide a better depiction of this stream.	Stream S-I86 is not proposed to be impacted by the Project. The scale of the aerial site plans in Attachment 7: Tab 7A has been revised to provide additional detail so it can be determined that the stream will not be impacted.
CU 31.w	Should S-K14 have a site specific?	Attachment 7, Tab 7D has been updated to include a site-specific drawing for stream S-K14.
CU 31.x	There is not sufficient information for S-I82 on Sheet 9 of Tab 7A to determine impacts. Provide a better depiction of this stream. Provide a better depiction of this stream.	As presented, there is a 0.001-acre impact to Stream S-I82 in the form of a slight encroachment of the temporary workspaces into the floodway of the stream. The scale of

		the aerial site plans in Attachment 7, Tab 7A has been revised to provide additional detail to show this impact.
CU 31.y	There is not sufficient information for S-I84 on sheet 10 to determine if the temporary access road impacts the stream. Provide a better depiction of this stream.	The temporary access road is more than 150 feet away from the northern source of the stream and the 50-foot floodway is approximately 100 feet away. The Temporary workspace impacts the floodway in five locations: the four temporary workspaces directly adjacent to the pipeline crossing and the one northern temporary workspace associated with the stream's 45 degree "bend" to the south, at the western edge of the floodway. The scale of the aerial site plans in Attachment 7, Tab 7A has been revised to provide additional detail so these impacts can be determined.
CU 32	The proposed gas lines are installed via open cut through a length of Stream S-K2 (instead of perpendicular to it) and is not a typical crossing. Provide a site specific drawing in Section 7D for this atypical stream crossing. [25 Pa. Code § 105.21(a)(1), 105.13(e)(1)(i)(C)]	Attachment 7, Tab 7D has been updated to include a site-specific drawing for Stream S-K2.
CU 33	Revise the application plans to include all avoidance and minimization measures for identified species of concern associated with water obstructions and encroachments from the Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Pennsylvania Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service. Ensure any seed mixtures, matting, or other specified items are included in the plans and/or E&S plans. In addition, revise the Environmental Assessment to discuss the avoidance and minimization measures and clearances received.	To ensure contractor compliance, SPLP has developed a state-of-the-art web-based mapping applications that is required to be used by the contractor to determine all special environmental restrictions such as PNDI and trout stream restrictions. All of the restrictions and avoidance measures committed to and approved by PNDI agencies are included in the Project Description within a summary table and within the PNDI agency final determination letters and accepted Conservation Plans included in Attachment 6, Tab B. The same notes in the Project Description are reflected within the E&S Plan notes. Trout stream restrictions and other sensitive species restrictions are also noted on aerial site plans and E&S

	[25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]	Plans, however due to the senstive nature of the some of the information not all is depicted. SPLP will implement a comprehensive Environmental Training and Inspection program designed specifically to ensure contractors are appropriate notified and are adhering to such restrictions.
CU 34	Sheet 8 identifies ATWS in proximity to S-K5 designated for spoil. Deposition of materials is an encroachment and is not waived by Chapter 105. [25 Pa. Code § 105.12(a)(2)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil. To accommodate the impact, S-K5 has been removed from the waiver list and its ATWS floodway impacts are presented in revised Table 3 of Attachment 11.
CU 35	Sheet 14 of Tab 7A shows temporary right-of-way within the floodway of S-BB120; however, the inset indicates no temporary floodway impacts. Correct the submission to reflect the proper amount of temporary impacts. [25 Pa. Code § 105.13(e)(1)(i)(C)]	Table 3 in Attachment 11 and the aerial site plans in Attachment 7, Tab 7A fully account for and identify the types and areas of workspace impacting stream S-BB120.
CU 36	Provide a detail for the proposed water withdrawal on Sheet 16 S-J36. [25 Pa. Code § 105.21(a)(1), 105.13(e)(1)(i)(C)]	The surface water withdrawal on Locust Creek will use temporary and above-ground equipment. This water withdrawal location is labeled on the Chapter 105 drawings. Additional details, including specific equipment configurations are included in the Chapter 102 E&S drawing details, which are referenced in the Chapter 105 drawings. All encroachments and obstructions (e.g., pump pad) are identified on the Chapter 105/106 drawings and included within the limit of disturbance.

CU 37	Identify how the stream impact of 1,170 ft2 was calculated for S-J37 on sheet 16. [25 Pa. Code § 105.13(e)(1)(i)(C)]	The 1,170 square feet was calculated by multiplying the approximate stream length within the two crossings in the Travel Lane (78 feet) by the width of the crossing (15 feet). An additional length of 90 square feet from four HDD crossings was inadvertently omitted from the calculation. However, the Travel Lane associated with this crossing has been removed and all attached revised permit application documents have been revised to reflect this new crossing.
CU 38	ATWS in the floodplain and floodway of Stream S-I69 on Sheet 21 of Tab 7A is designated for spoil, but spoil location in conjunction with E&S controls is not provided. Identify measures to minimize accelerated erosion to protect surface waters. [25 Pa. Code § 105.13(g)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands, including the floodplain and floodway of Stream S-I69. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil.
CU 39	Upland ATWS on Sheet 23 of Tab 7A does not have associated E&S measures. Identify measures to minimize accelerated erosion to protect surface waters. [25 Pa. Code § 105.13(g)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil.
CU 40	ATWS on Sheet 27 of Tab 7A is designated for spoil, however a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Identify measures to minimize accelerated erosion to protect surface waters. [25 Pa. Code § 105.13(g)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil.

CU 41	Why is an additional 5 feet of right-of-way required at locations where the proposed pipelines parallel the existing maintenance corridor? This is not reducing/minimizing impacts. Adjust the submission to demonstrate how the project minimizes adverse environmental impacts. [25 Pa. Code § 105.13(e)(1)(viii)]	There is not an additional 5 feet of ROW. Rather, the proposed 50-foot wide permanent ROW is slightly offset by the approximate "maintenance corridor." The maintenance corridor is an approximate limit of disturbance (LOD) on an existing line that does not have an existing legally defined right-of–way width, due to the norms of the time period it was constructed. Wherever possible, the current LOD is sited to overlap the existing maintenance corridor to the maximum extent possible while allowing safe installation of the pipelines. In some areas, the existing pipe is closer to the proposed LOD than others, and to ensure the integrity and safety of the construction crews and the existing pipeline, the proposed ROW is slightly further away from the existing maintenance corridor.
CU 42	The 100 year floodway is depicted differently on ES-4.71 and Sheet 44 of Tab 7A. Clarify this discrepancy and correct any reported impacts. [25 Pa. Code § 105.13(e)(1)(i)(A), 105.13(g), 105.21(a)(1)]	The revised application ensures that the 100-year floodway and floodplains associated with stream S-BB101 (Hogestown Run) are consistent throughout the application, with proposed impacts reflected correctly.
CU 43	Trindle Spring Run, which has approximately 0.5 of a square mile drainage area adjacent to the PA Turnpike is not sufficiently identified on Sheet 49 of Tab 7A. Demonstrate why the submission lists S-I46 as a waived stream. [25 Pa. Code § 105.13(e)(1)(i)(A)]	Trindle Spring Run (S-146) was inadvertently identified as waived. In the attached revised permit application documents stream S-I46 is no longer identified as a waived stream.
CU 44	Sheet 59 of Tab 7A indicates no temporary floodway impacts to Stream S-I41; however, temporary right-of-way is shown on the plan sheet. Clarify this discrepancy. [25 Pa. Code § 105.13(e)(1)(i)(C)]	The aerial site plans in Attachment 7, Tab7A consistently display the types and areas of workspace impacting stream S-I41.

CU 45	Fertig Road is not identified on ES-4.21 or 4.22. Provide a site plan that identifies existing roads and other manmade features. [25 Pa. Code § 105.13(e)(1)(i)(C), 105.21(a)(1)]	All plans, maps, and figures have been updated to contain consistent information for existing roads and other manmade features. Fertig Road was determined to be a private drive. Although this road is shown topographically on the E&S plan drawings, it has not been labeled with a formal road name.
CU 46	The water withdrawal proposed for S-J15 on Sheet 31 of Tab 7A (the Conodoguinet Creek) requires a Submerged Lands License Agreement. Submit the required information to begin the SLLA process. [25 Pa. Code § 105.31(c)(2)]	Conodoguinet Creek water withdrawal is to be a temporary water withdrawal. Valerie Marx at the DEP Bureau of Waterways Engineering and Wetlands has confirmed that the SLLA for Conindoguinet Creek must be updated to include the water withdrawal information; SPLP will submit the necessary information for approval.
CU 47	The Submerged Lands License Agreement for Conodoguinet Creek (S-I53) identifies a 50-foot permanent right-of-way; however, Sheet 32 of Tab 7A only depicts a Permanent Easement. Correct the plan sheets, impacts tables, and fees calculation worksheet to reflect the right-of-way licensed by the SLLA. [25 Pa. Code § 105.13(e)(1)(i)(C)]	The SLLA is an authorization, per linear foot, to occupy submerged lands owned by the Commonwealth of Pennsylvania and is independent of the ROW, permanent easement, or size of the pipe. The permanent easement on the Joint Permit Application site plans has been removed so that the Project's temporary and permanent impacts are consistent with the LOD. The LOD identifies the permanent and temporary workspaces necessary for the construction, operation, and maintenance of the Project in waters of the Commonwealth. Valerie Marx at the DEP Bureau of Waterways Engineering and Wetlands has been contacted to determine the course of action for updating the information contained within the SLLA.
CU 48	The Submerged Lands License Agreement for Conodoguinet Creek (S-I53) indicates the crossings will be two parallel 20-inch lines; however, the project description and permit submission indicate one 20-inch line and one 16-inch line. Correct the	The SLLA is an authorization, per linear foot, to occupy submerged lands owned by the Commonwealth of Pennsylvania and is independent of the ROW, permanent easement, or size of the pipe. Valerie Marx at the DEP Bureau of Waterways Engineering and Wetlands has been

	submission to reflect the pipelines licensed by the SLLA. [25 Pa. Code § 105.13(e)(1)(iii)(A)]	contacted to determine the course of action for updating the SLLA with the finalized pipeline sizes.
CU 49	The Submerged Lands License Agreement for Conodoguinet Creek (S-I53) indicates a crossing length of 130 feet; however, at a minimum, Table 3 of Tab 11, Sheet 32 of Tab 7A, and the HDD plan and profile views for the crossing demonstrate a 196-foot crossing. Correct the submission to reflect the crossing length licensed by the SLLA. [25 Pa. Code § 105.13(e)(1)(i)(C)]	The proposed crossing location of Conodoguinet Creek (S-153) has changed (as reflected on the Aerial Site Plans in Attachment 7, Tab 7A). The Submerged Lands License Agreement will be amended accordingly
CU 50	Floodplain impacts are not identified for Stream S-BB83 on Sheet 37 of Tab 7A. Provide the missing information. [25 Pa. Code §§ 105.13(e)(1)(i)(A) and (C), 106.11(a)]	The previous site plans and impact tables displaced a temporary floodway impact of 0.053 acres. The revised aerials site plans in Attachment 7, Tab 7A and revised Table 3 in Attachment 11 fully account for the types and areas of workspace impacting stream S-BB83.
CU 51	Provide a registered professional engineer's seal and signed certification, in accordance with §106.12(g), which shall read as follows: ''I (name) do hereby certify 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 professional practice, is true and correct, and is in conformance with Chapter 106 of the rules and regulations of the Department of Environmental Protection.'' If the seal/certification is submitted on a separate piece of paper, please have it refer specifically to the project name and application number shown above. Also, the seal shall be affixed on the cover page of the plan sheets. [25 Pa. Code §§106.12(g)]	This signed certification has been added to the Attachment 16 documents.

CU 52	There are certain portions of streams where the pipeline is located less than the minimum 25 feet away from the stream bank. These portions are near hard meanders thereby increasing the potential for exposure during stream migration. Identify and provide adequate erosion protection at these locations, or move the proposed pipes 25 feet away from the stream bank. Natural vegetative stabilization or natural stream design structures should be considered first to avoid and minimize impacts. [25 Pa. Code §§105.314]	Erosion protection is not necessary because the pipeline will be buried below streams in accordance with DEP regulations. 25 Pa. Code §105.313 requires that pipelines under stream beds must be buried at least 3 feet deeper than existing grade, which includes the lowest point in the stream bed. As set forth in the Application, SPLP has committed to burying the pipeline 5 feet below existing stream beds. Where the pipeline is within 25 feet of streams, or where streams are within the Permanent ROW, the depth of cover is designed to avoid and minimize the risk of exposure due to stream migration. The pipeline is also inspected regularly to meet PHMSA regulations. Inspections include the identification of exposures. The Alternative Analysis (Attachment 11, Enclosure E, Part 3) demonstrates that the pipeline is sited in the most environmentally protective route. Site-specific plans are provided as part of the E&S Plan sheet set for these crossing types and provide bank stabilization BMPs.
CU 53	The site specific drawings reference "Stream Restoration" but no detail or plan for this stream restoration has been provided. Provide a plan for the stream restoration referenced in the site specific drawings. In addition, clarify if this will be utilized at additional stream crossings or not and identify the crossings where it will be utilized. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(i)(C), 105.311(2), 105.15(a)]	The site specific drawings provided within Attachment 7, Tab 7D and the E&S Plan sheet within Attachment 12 have been increased in number to cover additional stream crossings, and have been updated to include a stream restoration plan drawing, including plan and profile views and notes.
CU 54	The plans indicate that Streams S-J43, S-K4, S-K2, S-K1, S-I75, S-I76, S-I65, S-I59, S-J13, S-H70, S-BB40, and S-H69 flow in and along and under the ROW and proposed pipelines and not across and	Site-specific drawings have been revised or new site-specific drawings prepared for these crossings and are provided in the revised and now included within Attachment 7, Tab 7D and the E&S Plan sheet within

	immediately through them. The plan provided for S-K4 in Tab 7D do not adequately depict the existing or proposed conditions upon stream restoration or excavation limits. The E&S plans do not provide sufficient detail on the stream limits, banks, excavation limits, etc. Provide site-specific plans, cross sections, and profiles that adequately depict the existing and proposed conditions, stream bed, stream banks, limits of excavation, and methods for the stream restorations. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.13(e)(1)(i)(G), 105.311(2)]	Attachment 12. These plans provide the existing condition, E&S Plan, and restoration stage plan and profiles for these areas. Additional notes and details are reference and provided with the E&S Plan provided in Attachment 12 and Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4.
CU 55	The ATWS area in the floodways of Streams S-M21 and S-BB98 on Sheet 23 of Tab 7A are designated for spoil; however a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to streams. [25 Pa. Code §§105.13(g)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands, including the floodways of Streams S-M21 and S-BB98. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil.
CU 56	There are plan sheets in Tab 7A with streams that do not show enough information beyond the temporary right-of-way (ie. Floodway delineation, stream orientation, and hydrologic connections) to properly evaluate the proposed impacts. Provide a better depiction of the streams outside of the proposed temporary rights of way. [25 Pa. Code §§105.13(e)(1)(i)(A)]	The plans in Attachment 7, Tab 7A provide the delineation of resources beyond the LOD. Delineations were performed on a 200-foot-wide survey corridor. Reroutes and Project changes were also field-delineated and delineations occurred beyond the Project areas to capture adjacent resources.
CU 57	Provide color photograph(s) of Pond-J4 which clearly depict the resource, and indicate on the plans the location and orientation of the photograph(s). [25 Pa. Code §§105.13(e)(1)(iv)]	The photograph of Pond-J4 is now provided within the supplemental wetland delineation information provided in Attachment 11, Enclosure A. Location and orientation of the photograph is provided on the aerial site plans.

CU 58	The impact plans and E&S plan drawings do not depict what impacts are proposed to Pond-J4. The E&S plan sheet ES-4.04 depicts that timber mats end prior to the pond, and that the pond may need to be partially impacted by a temporary crossing(s). Revise the plans to clearly depict the proposed impacts. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1)]	As shown on the Aerial Site Plans and the E&S plan drawings, a small portion of Pond-J4 encroaches into a the very northern edge of the proposed 50-foot ROW. The proposed pipelines are planned approximately 25 feet or more from the edge of the pond and will not be installed in or under the pond. Therefore, trench excavation will not directly impact the pond. Although the pond is shown in the 50-foot wide workspace, construction activities will be able to avoid direct disturbance to the pond itself, and it will remain undisturbed. Orange construction fencing will be installed along the edge of the pond.
CU 59	The site plan drawing, sheet 4, does not fully depict the proposed impact to wetland I62 because it is covered by text information. Revise this plan drawing to clearly depict this impact. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1)]	The aerial site plans in Tab 7A have been revised at a larger scale to more clearly display the impacts to Wetland I62.
CU 60	Streams S-K14 and S-K6 have secondary channels which depart/re-join from each other within the proposed ROW. Provide site specific plan drawings depicting the existing and proposed conditions, stream banks, temporary crossings, temporary pump bypasses, and limits of excavation. [25 Pa. Code §§105.13(e)(1)(iv), 105.301(1), 105.301(3)]	Attachment 7, Tab 7D has been updated to include a site-specific drawing for Streams S-K14 and S-K6.
CU 61	Temporary timber mat crossing is proposed across wetland I61; however, it appears that this can be avoided by accessing the site in the temporary ROW South of the wetland. Revise the application to avoid the temporary impacts to this wetland or revise the alternatives analysis to discuss in detail why the temporary workspace is necessary. [25 Pa Code §105.13(e)(1)(viii) & §105.14(b)(7) & §105.18a(a) & §105.105.18a(b)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

CU 62	It appears the temporary impacts to stream S-I85 from the temporary ROW could be avoided. Revise the application to avoid the temporary impacts to this stream or revise the alternatives analysis to discuss in detail why the temporary workspace is necessary. Note: the E&S plan ES-4.15 does not depict any water obstructions or encroachments in the stream in this temporary ROW. [25 Pa Code §105.13(e)(1)(viii) & §105.14(b)(7)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. See Appendix D and E for Wetland (W-I61) and Stream Area Impact Avoidance assessments.
CU 63	The site specific drawing S-K4-C-101 depicts the temporary stream crossing of S-K4 with timber mats protruding halfway into stream S-K4. This appears impractical to install. Explain how this will be accomplished, and if the crossing will occur in a different manner or with different obstructions, provide detailed plans for the temporary crossing. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.13(e)(1)(i)(G), 105.151(1)]	Attachment 7, Tab 7D has been updated to include a site-specific drawing detailing the crossing method for Stream S-K4.
CU 64	Based on the aerial photography and the photographs provided it appears that stream K1 and/or wetland K1 are not accurately delineated in the Aquatic Resources Report and plan drawings. The photographs provided appear to indicate that wetland K1 continues to and possibly though stream S-K1. In addition, the sharp meander depicted in S-K1 on the plans is not evident on aerial photographs, the provided photographs, and crosses upslope contours and trees. Also, S-K1 continues downstream within the survey area; however, it is not delineated fully within the survey area. Revise the Aquatic Resource Report, and application to accurately delineate wetland K1 and	Additional data was collected in this area in September 2016. The modification of stream S-K1 is and the verification of wetland W-K1 boundaries are discussed in the wetland delineation addendum report provided in Attachment 11, Enclosure A.

	stream S-K1 and account for the accurate proposed impacts. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]	
CU 65	Revise the Auger Bore Drawing PPP-PA-CU-0051.0000RD to clearly depict the stream banks of stream S-BB119. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.301(1)]	This auger bore drawing, provided in Attachment 7, Tab 7C, has been updated to clearly depict the stream banks of stream BB119.
CU 66	The site plans indicate that wetland W177 and stream S-BB120 will be open cut to install the pipelines and not installed by HDD. However, the E&S plan sheets ES-4.21 and ES-4.22 indicate the stream and wetland have the pipelines installed by HDD. In addition site specific HDD plans are provided for this area. Revise the application to be accurate and consistent in what the proposed impacts are and to avoid and minimize impacts. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1)]	Wetland W177 and Stream S-BB120 will be crossed using the HDD method, and no trenching will be conducted through these resources. However, a "Travel LOD" lane will be used in these resources to facilitate the construction process along the ROW. The Site Plan drawing (Attachment 7) has been revised to better show the workspaces (and purpose of the different workspaces) adjacent to and in these resources.
CU 67	The HDD plan drawings PA-CU-0053.0000RD and PA-CU-0053.0000RD-16 depict a conservation easement on wetland W177 and stream S-BB120. Revise the environmental assessment to identify what the easement is and the impact of the proposed water obstruction and encroachments on this easement. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.14(b)(5)]	This conservation easement is a Farmers Home Administration (FmHA) conservation easement, and it is administered by the PA Game Commission. It protects stream S-BB120 and wetland W177 on the landowner's property. SPLP plans to cross these resources using HDD to avoid the need for the landowner/PGC to amend or modify the conservation easement. Attachment 11, Enclosure D, has been revised to describe the proposed crossing methods and impact avoidance plan for this conservation easement area.
CU 68	Revise the impact table to separately identify the impact from the proposed travel lane on wetlands J40, I63, J35, and J31; and streams S-I89, S-I88, S-J41, S-J37, S-J36 and S-J34. It is unclear if the proposed impacts are permanent or temporary. The	The impact table in Attachment 11, has been revised to identify on separate rows the separate proposed activities and impacted areas and to identify whether the impacts are permanent or temporary.

	travel lane and its temporary impacts are located outside of the Permanent Easement area, but no temporary impacts are identified in the impact table. Clarify if the proposed impacts are permanent or temporary and identify the purpose of the travel lane. [25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii), 105.15(a)]	
CU 69	Revise Impact Table 3 to clearly identify that stream S-J37 is proposed to be crossed twice in two locations by the proposed pipelines and the travel lane. [25 Pa. Code §§105.15(a), Environmental Assessment Instructions]	Stream S-J37 has been split into two streams, S-J37a and S-J37b. The impacts and crossing method to the stream at each crossing are represented in the aquatic resource impact tables to be mutually exclusive.
CU 70	Revise all plan drawings to include the FEMA floodplain boundary in the area of E&S plan sheet ES-4.27 and wetland BB151. [25 Pa. Code §§105.13(e)(1)(i)(A)]	All plan drawings have been revised to include the FEMA floodplain boundary in the area of E&S plan sheet ES-4.27 and wetland BB151, and the associated impacts have been tabulated and summarized in the revised Impacts Tables located in Attachment 11.
CU 71	Revise all plan sheets to include the FEMA mapped floodplain boundary for stream S-I89. [25 Pa. Code §§105.13(e)(1)(i)(A)]	These FEMA floodplains have been added to the drawings and impacts associated with these features have been tabulated and summarized in the revised Impacts Tables located in Attachment 11.
CU 72	The wetland delineation for wetland BB151 appears that it may be inconsistent with the wetland delineation for Sunoco's Mariner East I 8-inch integrity repair project. Revise the wetland delineation to compare and explain any inconsistencies. In addition, identify any access roads which were installed in wetlands for this repair project. The E&S plan drawing E&S-4.27 indicates that there are no proposed improvements to the existing road; therefore clarify if road improvements made under the Mariner East I 8-	Wetland BB151 was delineated without removing the upland existing gravel road from the delineation limits. This road was used as an access road for the 8-inch pipeline repair project with no improvements and will also be used as an access road for the Pennsylvania Pipeline Project. The shape of wetland BB151 has been revised to show the upland gravel corridor through the wetland. No improvements to the road are proposed for the Pennsylvania Pipeline Project. The attached revised Supplemental Aquatic Resources Report located in

	inch Integrity Repair project are remaining in place. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C), 105.21(a)(1)]	Attachment 11, Enclosure A reflects the change to this delineated wetland.
CU 73	Provide color photographs of wetland BB151 in the area of the proposed access road crossing. [25 Pa. Code §§105.13(e)(1)(iv)]	The photographs of BB151 are now provided within the supplemental wetland delineation information provided in Attachment 11, Enclosure A. Location and orientation of the photograph is provided on the aerial site plans.
CU 74	The E&S plan sheet ES-4.27 states that no improvements are proposed to the existing access road which crosses wetland BB151; however the site plan drawings and impact table indicate temporary matting will be utilized. Revise the application to be accurate and consistent. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C), 105.21(a)(1)]	The crossing method at wetland BB51 on plan sheet ES-4.27 has been revised to be accurate and consistent with the E&S site plan Drawings and impact table. There is an existing, upland gravel road through the wetland that was not marked previously. The attached revised permit application documents reflect that no improvement is planned for the temporary access road adjacent to wetland BB51.
CU 75	Revise the site plan E&S drawing plan sheet ES-4.33 to accurately depict the stream banks of stream S-I69. The application states the stream has a bank-to-bank width of 10 feet and flows at the edge of wetland I41. Therefore, it appears additional temporary bridges will be necessary for construction. Revise the application accordingly to depict all proposed stream crossings. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.301(1), 105.21(a)(1)]	The temporary bridges on drawing ES-4.33 has been extended to cover areas where S-I69 flows adjacent to the wetland where the bank may actually encroach on the ROW.
CU 76	The ATWS is proposed in stream S-I59 on E&S plan sheet ES-4.43; however, no temporary impacts are proposed on the site plan drawing, sheet27, or the impact table. Revise the E&S site plan drawing to be consistent and accurate with the rest of the application. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C), 105.21(a)(1)]	The ATWS has been reduced to avoid direct impacts to the bed and bank by this workspace at this location and is consistent between the E&S and aerial site plans.

CU 77	E&S plan sheet ES-4.47 depicts the proposed pipelines in different locations than the trench plugs' locations. Revise the application plan drawings to be accurate and consistent. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C), 105.21(a)(1)]	The trench plugs on E&S Plan Sheet ES-4.47 have been reviewed and the plug locations have been revised as appropriate.
CU 78	Provide a detail that shows how flumes or other in-stream supports are used for temporary stream crossings as mentioned in the Temporary Stream Crossing detail on Sheet ES-0.09 and identify where each method will be used. [25 Pa. Code §§105.13(g)]	Temporary crossings of streams are accommodated by installation of the timber mat, culvert, or railcar equipment bridges as detailed by the standard typical drawings and notes for these types of crossings provided within the E&S Plan (Attachment 12). The contractor may choose from these temporary crossing methods.
CU 79	Revise the impact table to identify the temporary construction ATWS area in the floodway of stream S-J15. [25 Pa. Code §§105.15(a) & Environmental Assessment Form Instructions]	The proposed temporary impact of 1.171 acres provided on the impact tables and site plans include the ATWS associated with the pullback for the HDD under Conodoguinet Creek. However, the attached revised permit application documents more clearly identify the acreage associated with the pullback.
CU 80	Provide plans identifying the proposed activities, structures, and obstructions proposed in the ATWS in the floodway and floodplain of stream S-J15 and wetlands J11 and J10. Identify the timeframe and duration they will remain. [25 Pa. Code §§105.13(e)(1)(I, 105.13(e)(1)(iii)]	The workspaces in the vicinity of the Conodoguinet Creek crossing have been revised on the western side. The Conodoguinet Creek will be horizontally drilled to avoid direct temporary disturbance to the Creek. An HDD is now also proposed to the west of this HDD. The aerial site plans provided in Attachment 7, Tab 7A and the E&S Plan sheets provided in Attachment 12 for this area describe and depict the proposed impacts and activities within these workspaces. Standard typical details are referenced on the E&S Plan where necessary to describe the activity. HDD staging activities, pipeline installation, and HDD pullback activities are proposed in these workspaces and these activities are described within the

		Project Description provided in Attachment 9 along with estimated durations.
CU 81	E&S plan sheet ES-4.54 does not depict any temporary timber mat crossings of wetland K41. It is unclear if all of this wetland within the proposed ROW will be excavated, or if some of it will also be crossed using timber mats. Revise the application plan drawings for this wetland to depict the proposed water obstructions and encroachments. [25 Pa. Code §§105.13(e)(1)(i)(c)]	The impact to wetland W-K41 will involve excavation for the pipeline. Additional timber matting is not anticipated in this area. Travel will be accomplished on the other side of the pipeline.
CU 82	Provide color photographs of Pond-J3 and a location map depicting the location and orientation of the photographs. [25 Pa. Code §§105.13(e)(1)(iv)]	The photographs of Pond-J3 are now provided within the supplemental wetland delineation information provided in Attachment 11, Enclosure A. Location and orientation of the photograph is provided on the aerial site plans.
CU 83	Provide plans identifying the proposed activities, structures, and obstructions proposed in the ATWS areas in the floodplain of stream S-I49. Identify the timeframe and duration they will remain. [25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii)]	The aerial site plans provided in Attachment 7, Tab 7A and the E&S Plan sheets provided in Attachment 12 for this area describe and depict the proposed impacts and activities within these workspaces. Standard typical details are referenced on the E&S Plan where necessary to describe the activity. HDD staging activities, pipeline installation, and HDD pullback activities are proposed in these workspaces and these activities are described within the Project Description provided in Attachment 9 along with estimated durations. On January 20, 2016, Lower Frankford Township provided SPLP a letter, stating consistency with their floodplain/storm water management program
CU 84	Revise E&S plan drawing ES-4.6 to depict the stream banks of stream S-BB83 and depict the proposed temporary crossing of this stream and wetland KP2. [25 Pa. Code §§105.13(e)(1)(i), 105.301(1)]	Drawing ES-4.60 has been updated to show temporary matting on the stream bank. In addition, the floodway limits have been added to the drawing as well.

CU 85	Provide plans identifying the proposed activities, structures, and obstructions proposed in the ATWS areas in the floodplain of stream S-BB101. Identify the timeframe and duration they will remain. [25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii)]	The aerial site plans provided in Attachment 7, Tab 7A and the E&S Plan sheets provided in Attachment 12 describe and depict the proposed impacts and activities within the ATWS areas in the floodplain of Stream S-BB101. Standard typical details are referenced on the E&S Plan where necessary to describe the activity. Temporary use for equipment storage is proposed in these ATWS and this activity is described within the Project Description provided in Attachment 9 along with estimated durations.
CU 86	E&S plan sheet ES-4.91 does not depict any temporary timber mat crossings of wetland BB44. It is unclear if all of this wetland within the proposed ROW will be excavated, or if some of it will also be crossed using timber mats. Revise the application plan drawings for this wetland to depict the proposed water obstructions and encroachments. [25 Pa. Code §§105.13(e)(1)(i)(c)]	The impact to wetland W-BB44 will involve excavation for the pipeline. Additional timber matting is not anticipated in this area.
CU 87	Provide site specific cross sections for the streams and wetlands which depict the existing and proposed conditions of the streams and wetlands, proposed pipes and depths, and the existing stream bed and banks dimensions. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.14(b)(4), 105.301(3), 105.301(4), 105.301(5)]	Additional cross sections are located in Attachment 7, Tab 7G for intermittent and perennial stream crossings that do not have site-specific (Attachment 12), HDD (Attachment 7, Tab 7B), or bore (Attachment 7, Tab 7C) drawings prepared which contain profile information. All existing bank and wetland dimensions are provided within the aquatic resource tables provided in Attachment 11. Typical cross-sectional details provided within the E&S Plan Sheets accommodate the lesser and more minor stream crossings (e.g., those designated ephemeral). All bed and bank and wetland contours are to be restored to the existing condition in accordance with the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4.

CU 88	The Mitigation Plan states that the excavated stream banks will be reseeded; however the E&S detail for bank restoration does not indicate this. Revise the Bank Restoration Detail to be consistent and include the native seeding mixture to be utilized. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.21(a)(1)]	The bank restoration details have been revised to indicate that stream banks will be reseeded in accordance with the approved seed mixes in the E&S plan sheets at Attachment 12.
CU 89	Provide profiles for the temporary crossings identified in the E&S plan that depict at a minimum the existing conditions and the proposed conditions. Identify the aggregate and the typical timber mat crossings being used. [25 Pa. Code § 105.13(g)]	Temporary bridge and wetland mat crossing plan and profiles are presented within the E&S Plan as standard typical details. Several typical temporary crossing methods are presented for streams and a single method for wetlands. The contractor is to select the best option to fit the crossing and meet the needs of allowing safe travel through and installation of the pipeline while minimizing the impact to the stream and adjacent areas. Restoration of these areas is thoroughly described within the E&S Plan provided in Attachment 12 and site specific drawings at Attachment 7, Tab 7D. Approval of the E&S Plan is being sought through the Chapter 102 applications.
CU 90	The following streams start and/or end within the aquatic resource survey area and/or proposed ROW and the plan maps, photographs or narrative do not give justification, or appear to depict why they start/end: S-J45, S-K1, S-BB5, S-I46. Revise the application to explain their start/end points, at a minimum, within the entire survey area, and ensure that the floodways and proposed floodway impacts are fully identified and depicted. Provide color photographs which depict the resource and surrounding area sufficiently, including photographs of start/end locations. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(iv)]	The application has been supplemented with an aquatic resource addendum provided in Attachment 11, Enclosure A. The stream lengths and stop and start points were verified or modified based on additional field work. Additional photographs and narrative are provided within the addendum report.

CU 91	While the site plan drawings have a note indicating that Letort Spring Run and its tributaries have an existing use designation as High Quality, Cold Water Fishes (HQ-CWF), the site plan stream identification and impacts tables should reflect this when they list the stream classification. Revise the site plans and impact tables accordingly to identify the existing use of HQ-CWF for Letort Spring Run and its Tributaries. [25 Pa. Code §§105.14(b)(11), 105.15(a)]	Table 3 of Attachment 11 and the aerials site plans in Attachment Attachment 7, Tab7A have been revised to indicate the Existing Use classification of Letort Spring Run and its tributaries.
CU 92	The E&S plan details for temporary stream crossings and plan drawings state timber mats or temporary equipment bridge may be utilized but only depicts a timber mat bridge. Provide details for the proposed temporary equipment bridge(s) which depict the size, shape, and span of the structure. Provide separate details depicting the timber mat and other bridge structure crossing's cross sections. In addition, revise the E&S plan and/or other plan drawings to identify the method of each temporary stream crossing proposed at each location. [25 Pa. Code §§105.13(e)(1)(C), 105.13(e)(1)(i)(G), 105.13(e)(1)(iii)(A), 105.151(1), 105.21(a)(1)]	The E&S plans (Attachment 12) have been revised to identify that a temporary equipment bridge will be installed or temporary timber matting for wetland will be installed. The contractor is then obligated to utilize any of the approved methods for these crossing types provided within the E&S Notes and Details. Exact dimensions will be dictated by the location and method chosen.
CU 93	Trench plugs are proposed to be located at wetland/upland interfaces. Additional trench plugs may be necessary along the length of the crossing due to the length and/or slope to maintain hydrology throughout the wetland. Review and revise the application and plans accordingly. Some additional guidance is available in the PA E&S	The wetland standard typical crossing detail has been updated to include trench plugs within the wetland for long open-cut wetland crossings. Also, the E&S plan drawings at Attachment 12 have been revised to be consistent with the detail.

	Control BMP Manual. [25 Pa. Code §§105.13(e), 105.18a]	
CU 94	Temporary road stream crossing details utilizing culverts are provided on E&S plans ES-0.09 and ES-0.11; however, the E&S plans and impact plans do not identify that any of these crossings are to be used. Revise the E&S plans to remove these proposed crossing methods if not proposed to be utilized, or identify where the proposed crossing methods will be utilized. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.151(1), 105.21(a)(1), 105.13(e)(1)(iii)(A)]	The E&S Plan at Attachment 12 provides DEP approved standard typical details for temporary road crossings. The details will be used in cases where alternative crossing methods are needed to accommodate the crossing and safe installation of the pipelines.
CU 95	Revise the stream Bank Restoration Detail to clearly indicate that the existing bank slope and grade and elevation are to be restored, to identify a biodegradable erosion control blanket to be utilized, and to specify the native plantings to be used. In addition, some stream banks are likely to be a-typical, like vertical banks, or very low banks, or eroding banks. Provide plans and details for how banks of a-typical conditions will be restored. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1, 105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4), 105.16(d)]	Streams will be restored in accordance with the E&S Plan provided in Attachment 12. The E&S Plan provides the narratives, revised standard typical details, and at several locations site-specific plans for stream restoration. Specifically, sheet ES-0.20 specifies SC150BN, a biodegradable ECB. Also the BMPs for restoring streams are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures found in Attachment 11, Enclosure E, Part 4 and are consistent with the E&S Plan. These plans provide details on the erosion control blanket and plantings. Atypical bank situations will be addressed in the field on a site specific basis, and will have the goal of restoring the banks as closely as possible to their preconstruction condition or a more stable angle of repose.
CU 96	Provide plans or a detail for the restoration of stream beds at open cut stream crossings. This should include replacement of native stream bed material and assurance that no significant changes in bed grade occur. [25 Pa. Code	Stream beds at open cut stream crossings will be restored in accordance with the E&S Plan provided in Attachment 12. Native stream bed material will be separated from other spoil for reinstallation after restoration (see Attachment 12). The BMPs for stream bed restoration

	§§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1, 105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4), 105.16(d)]	are also discussed within the Impact Avoidance, Minimization, and Mitigation Procedures found in Attachment 11, Enclosure E, Part 4 and are consistent with the E&S Plan.
CU 97	Multiple streams which begin within the proposed ROW or immediately adjacent to it are proposed to be crossed by the proposed pipelines. Revise the application to discuss and provide plans outlining how source(s) of the streams will be protected and maintained. Revise the Environmental Assessment and Mitigation Plan to discuss the impacts to the streams both within the ROW and the downstream affects to the resources and properties. Provide compensatory mitigation for streams in which flow will be adversely affected. Provide this information for the following streams, at a minimum: S-J31, S-BB100, S-I80, S-I78, S-J22, S-BB7, S-BB5, S-I46, S-BB40, and S-H70. [25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(3), 105.15(a)(1), 105.16(d)]	As described within the enclosures of the Comprehensive Environmental Evaluation provided in Attachment 11, impacts to water resources, including streams S-J31, S-BB100, S-I80, S-I78, S-J22, S-BB7, S-BB5, S-I46, S-BB40, and S-H70 have been minimized. Where planned, the crossing and restoration of all Project streams will use temporary equipment bridge installation and dry crossing trenching methods as outlined and described within the E&S Plan provided in Attachment 12 and the Impact Avoidance, Minimization, and Mitigation Procedures provide in Attachment 11, Enclosure E, Part 4. These methods are designed in accordance with the DEP E&S Manual to maintain flow, protect sources, and minimize direct and secondary impacts to on-site and offsite resources. Similarly, adjacent resources are protected from secondary impacts through implementation of the E&S Plan in areas outside of aquatic resources. The Comprehensive Environmental Evaluation demonstrates that when implementing these methods along with site restoration, impacts to water resources are temporary and minor. Based on the construction methods and measures to be implemented, compensatory mitigation is not anticipated to be required.
CU 98	Wetlands I24, I31, and I32 are identified on the impact table as Exceptional Value because, or partially because, of a Scenic River. While the Yellow Breeches and Letort Spring Run are listed in the State Scenic River System, the stream	Wetlands I24, I31, and I32 have had their exceptional value status revised based on their classification within the State Scenic River System. Wetland I24 no longer meets the criteria for Exceptional Value for any of the criteria defined in Chapter 105.17, however, wetlands I31

	reaches are not designated as Wild or Scenic. Therefore, these wetlands are not Exceptional Value. Revise the application accordingly. [25 Pa. Code §§105.17(1)(iii)]	and I32 are still considered Exceptional Value due to their proximity to a stream that has a known population of naturally-reproducing trout.
CU 99	Wetland KP2 is located in the floodplain of a stream tributary to a wild trout stream. Therefore, it is Exceptional Value. Revise the application accordingly to indicate that the wetland is Exceptional Value for this reason. [25 Pa. Code §§105.17(1)(iii)]	Wetland KP2 has been revised in the revised application to reflect that is considered Exceptional Value based on proximity to a stream that drains to a stream with a designated naturally reproducing trout population. The (drains to) qualifier is footnote within Table 3 of Attachment 11.
CU 100	In accordance with the definition of Wild Trout Streams in Chapter 105 and PAFBC regulations, streams which drain to stream reaches on the list of streams which support natural trout reproduction are also wild trout. Therefore, revise Table 3 to identify all streams which drain to streams on this PAFBC list as wild trout, or TNR. [25 Pa. Code §§105.1, 105.15(a), 105.21(a)(1), & 58 Pa. Code §§57.11(b)(4)]	SPLP designates streams as "drains to" to manage data and more appropriately describe the streams within the survey corridor. SPLP understands that streams with "Drains to" qualifiers are regulated the same as a stream reach that is defined as a certain classification. SPLP maintains the "Drains to" qualifier in order to ensure the streams presented in the Aquatic Resource Impact Tables are characterized appropriately. The "Drains to" qualifier is explained within the footnotes of Table 3.
CU 101	Revise the impact table to identify that stream S-I46 is wild trout (TNR) as it is tributary to a wild trout reach. [25 Pa Code §§105.1, 105.15(a), 105.21(a)(1), & 58 Pa Code §§57.11(b)(4)]	Stream S-I46, Trindle Spring Run, has been revised in the revised application to reflect that it (drains to) a Class A stream with a known naturally reproducing trout population. The (drains to) qualifier is footnote within Table 3 of Attachment 11.
CU 102	Provide information about the pump size, flow rate, and duration of use for those open cut crossings (dry crossings) that will use the typical bypass pump-around method. Provide justification for why larger streams do not utilize the proposed flume option. How will aquatic life be able to pass throughout the stream safely? [25 Pa. Code § 105.401(4), 105.13(g)]	The contractor has available one of four crossing methods to facilitate the crossing within the allowable time frames and the conditions of maintaining a dry crossing while maintaining stream flow. The durations of the stream crossings are indicated within the E&S Plan notes and details at Attachment 12 and within the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4. With

		implementation of the duration restrictions and BMP crossing methods the impacts will be minor and temporary as described in Attachment 11, Enclosure D and Attachment 11, Enclosure E, Part 2.
CU 103	The impacts described under Section 5.0 of the Mitigation Plan are inconsistent with the impacts provided in the impact tables in the Environmental Assessment. Revise this inconsistency to state the correct impact totals throughout the application. [25 Pa. Code §§105.15(a), 105.21(a)(1), 105.13(e)(1)(i)(ix)]	These documents have been adjusted to avoid inconsistencies, and the impacts are now represented in Attachment 11, Enclosure D – Project Impacts, Enclosure E, Part 2 – Project-wide Resource Identification and Project Impacts, and also, the Compensatory Mitigation Plan in Enclosure F.
CU 104	The application states that the period of instream work to install the proposed pipeline(s) will be less than 24 hours in minor waterbodies and 48 hours for crossing of "intermediate" (10-30' across) waterbodies. Describe how these timeframes coincide with the hydrostatic testing procedures outlined in the project description. Do the trenches remain open during testing? To facilitate the further understanding of your project, revise your application to discuss the estimated time installation will take in crossings of wetlands and larger watercourses. [25 Pa. Code § 105.13(e)(1)(iii)]	For the open cut crossings of larger waters, the E&S Plan notes and details provided in Attachment 12 and Impact Avoidance, Minimization, and Mitigation Procedures (Attachment 11, Enclosure E, Part 4) have been revised to indicate that in-stream work to occur in minor water bodies (>10 feet wide) within 24 hours, and in major water bodies (10 to 100 feet wide) within 48 hours. Open-cut wetlands are tested along with the mainline testing and testing would be when the mainline is ready. Stream and wetland crossings are immediately backfilled and prior to testing.
CU 105	Revise the application to clarify if the exceptional value wetland analysis included all factors listed in 25 Pa Code §105.17(1). If the analysis did not consider all factors, revise it to analyze all factors and update the application. [25 Pa. Code §§105.13(e)(1)(x)(B), 105.17(1)]	The Exceptional Value Wetland analysis is now detailed in Attachment 11, Enclosure E, Part 2 and specifically indicates that the Exceptional Value Wetland analysis included all factors listed in 25 Pa. Code § 105.17(1), including a thorough and detailed analysis of public and private water supply well proximity to the Project; proximity, presence and habitat potential for protected

		species (dependent on wetland habitats); proximity of wetlands to naturally reproducing trout waters; proximity of wetlands to sections of streams designated "wild" and/or "scenic"; proximity of wetlands to streams designated as "Exceptional Value" in Chapter 93; and proximity of wetlands located in areas designated by DEP as "natural" and/or "wild" within Lands owned by the Commonwealth.
CU 105.a	Wetland J13 is identified at “BT A/O” in the impact table for why a wetland is EV. It appears that this represents that Bog Turtle is assumed to occupy a wetland, but this is unclear. In addition, wetland J13 and J15 are referenced in the same USFWS e-mail concerning Bog Turtle, but J15 is not identified as EV. Provide clarification on the meaning of the EV designation and why both wetlands are not identified as EV. [25 Pa. Code §§105.17(1), 105.13(e)(1)(x), 105.21(a)(1)]	"BT A/O" stands for Bog Turtle Assumed or Occupied. However, based on additional communications and survey work for bog turtle wetlands since the March and May submissions of this application, numerous changes have occurred that change the Exceptional Value status for wetlands that serve as habitat for the bog turtle, or provide habitat for this species within 1/2 mile of the wetland. The attached revised permit application documents have updated and complete Exceptional Value status for wetlands associated with bog turtle populations.
CU 105.b	One wetland is identified as EV due to Bog Turtle and another is identified as EV due to Bog Turtle A/O. However, based on the information provided to the USFWS it appears there are no Bog Turtle Concerns or conflicts. Clarify why these wetlands are identified as EV. [25 Pa. Code §§105.17(1), 105.13(e)(1)(x), 105.21(a)(1)]	BT A/O stands for Bog Turtle Assumed or Occupied. However, based on additional communications and survey work for bog turtle wetlands since the March and May submissions of this application, numerous changes have occurred that change the Exceptional Value status for wetlands that serve as habitat for the bog turtle, or provide habitat for this species within 1/2 mile of the wetland. The attached revised permit application documents have updated and complete Exceptional Value status for wetlands associated with bog turtle populations.
CU 105.c	Provide an assessment of the functions and values of any additional Exceptional Value wetlands and wetland with impacts over 1 acre. [25 Pa. Code §§105.13(e)(3), 105.15(a)]	Detailed functions and values assessments have been included for all Exceptional Value wetlands regardless of acreage. Attachment 11, Enclsoure C has been updated accordingly.

CU 106	Enclosure C of the Environmental Assessment discusses the various sections in terms relative to the existing pipeline ROW; however, the proposed ROW does not fully overlap the existing ROW but abuts/parallels the existing ROW. Revise Enclosure C to discuss the functions, habitat, and other factors in Enclosure C outside of the existing ROW and in areas of proposed impact and the overall resources. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(4)]	Attachment 11, Enclosure C has been revised to clarify that there are Project areas that do not completely overlap the existing ROW. The Application, including Attachment 11, Enclosure E, Part 2 discusses all temporary and permanent impacts upon resources as a result of the entire Project, including resources inside and outside the ROW.
CU 107	Public water supplies are located within in the vicinity of the proposed pipeline. The application states that there will not be any impacts the water supplies as a result of the pipeline. Provide the supporting documentation that led to this conclusion. Locate the public drinking water supplies in the vicinity of the proposed pipeline. Additionally, we recommend that you contact any public water supplier in order to help determine if your project will impact the public water supplier and subsequently provide documentation of interactions, through correspondence, with each supplier. Ensure all Public water supplies in the vicinity of the proposed pipeline are identified within the location map. Enclosed are instructions on how to utilize DEP's eMapPA to identify public water supplies in the vicinity of your project. [25 Pa. Code §§105.13(e)(1)(ii) & 105.13(e)(1)(x) & 105.14(b)(5)]	Water supply impacts have been analyzed and addressed within three supplemental plans to the Preparedness, Prevention, and Contingency Plan (PPC Plan), the Water Supply Assessment, Preparedness Prevention and Contingency Plan, the Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These plans address the elements of this comment and are provided in Attachment 12.
CU 107.a	Upon identification of public drinking water supplies, revise questions 14.0, 15.0, and 16.0 of	The responses to questions 14, 15, and 16 of the General Information Form in Attachment 1 have been revised to address this comment.

	the General Information Form accordingly. [General Information Form Instructions]	
CU 107.b	Upon identification of public drinking water supplies, revise the Environmental Assessment Form and associated enclosures accordingly to discuss the resources and impacts from water obstructions and encroachments on the public water supplies. [25 Pa. Code §§105.15(a), Environmental Assessment Form Instructions]	Attachment 12, Tab 12B provided a new Water Supply Assessment, Preparedness, Prevention and Contingency Plan, which discusses the potentially affected resources and impacts from water obstructions and encroachments on public water supplies.
CU 107.c	Upon identification of public drinking water supplies, revise the Alternatives Analysis and Mitigation Plan accordingly to avoid and minimize impacts to public water supplies and provide a detailed discussion on alternative routes, designs and methods documenting that there is no practicable alternative to further avoid and minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.13(e)(1)(ix), 105.14(b)(5)]	The Alternatives Analysis in Attachment 11, Enclosure E, and the Impact, Avoidance, and Minimization, Mitigation Procedures in Attachment 11, Enclosure E, Part 4 have been revised to provide a detailed discussion of alternative routes, designs and methods and to demonstrate that there is no practicable alternative to further avoid and minimize impacts.
CU 108	The application does not identify if the resources proposed to be affected are part of or located along a private water supply, including surface and groundwater sources. Revise the application and the Environmental Assessment to identify if any of the proposed resources are part of or located along a private water supply. [25 Pa. Code §§105.15(a), Environmental Assessment Form Instructions]	The water resources that are part of or located along a private or public water supply are identified in Attachment 12, Tab 12B. Potential impacts to public and private water supplies have been assessed and addressed within three supplemental plans to the PPC Plan, the Water Supply Assessment, Preparedness, Prevention and Contingency Plan, the Inadvertent Return Assessment, Preparedness, Prevention, and Contingency Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These plans are provided in Attachment 12, Tab 12B and Tab 12C.
CU 108.a	If private water supplies are identified, revise Enclosures C and D of the Environmental	Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan: the

	Assessment to identify them and discuss the impacts on them from the proposed water obstructions and encroachments.	Water Supply Assessment, Preparedness Prevention and Contingency Plan, the IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These supplemental plans are provided in Attachment 12.
CU 108.b	Provide procedures that will be followed to investigate and resolve impacts to private water supplies should they occur as a result of the proposed activities. These procedures should discuss, at a minimum, how private water supply owners will be alerted in the event of an inadvertent return and how impacts will be resolved and/or mitigation.	Attachment 12, Tab 12B includes a Water Supply Assessment, Prevention, Preparedness, and Contingency Plan that addresses potential impacts and describes the procedures to prevent and prepare for resolution of water supply impacts should they occur, including notification procedures.
CU 109	Section F, Attachment 11, EA Form, Page 2, item 7 states, "Is the water resource part of or located along a private or public water supply?" The Applicant checked "No". However, no documentation validating this statement is provided in the application. The Department is concerned that private and perhaps public water supply wells are located along crossed stream and wetland water resources and/or along the length of the HDD operations. The applicant needs to propose measures to protect all water uses, both surface intakes and groundwater sources, located along and/or downstream of the proposed work areas. Special attention needs to be applied to the potential unplanned impacts that HDD and inadvertent releases (IR) may have on groundwater sources. In addition, where a structure or activity is in a wetland, the applicant must demonstrate that this project will not cause or contribute to the pollution of groundwater or surface water resources	Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan, the Water Supply Assessment, Preparedness Prevention and Contingency Plan, the IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These plans are provided in Attachment 12 and the EAF revised accordingly. These plans provide instructions and procedures to facilitate the avoidance and minimization of impacts and provides the framework to investigate and resolve impacts caused by spills, releases, and other pollution events should they occur. Applicable public private downstream user information is compiled within the Water Supply plan and identification, notification, and testing procedure for private wells discussed.

	or diminution of resources sufficient to interfere with their uses, including use as a public or private water supply. Your assessment needs to include identification, notification and consultations with water suppliers and/or well owners. A notification contact list needs to be included in your PPC Plan and Inadvertent Release Plan. [25 Pa Code §105.13; §105.14(b)(4); §105.14(b)(5); §105.18a(5); §105.18a(b)(5); §91.33(b)].	
CU 110	Revise Enclosure C & D of the Environmental Assessment to identify and discuss the impacts of the water obstruction and encroachments on Opossom Lake Park. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), Environmental Assessment Form Instructions]	Enclosure D has been revised to identify and discuss the impacts of the Project on Opossum Lake Park. Enclosure C has not been revised to include this park due to the absence of this category in Enclosure C, conforming to DEP's prescribed format for Enclosure C (i.e., based on the EA Form).
CU 111	Revise Enclosures C & D to discuss the watercourses and wetlands proposed to be impacted and the impacts on them, and not discuss the impacts in general terms of the overall project or general type of impacts. [25 Pa. Code §§105.13(e)(1)(x), §105.15(a)]	Enclosure C of the Environmental Assessment has been revised to provide more detailed discussion of the existing aquatic resources and wetland functions and values within the proposed ROW. Enclosure D of the Environmental Assessment and Attachment 11, Enclosure E, Part 2 have been revised to provide more detailed discussion of the impacts to existing aquatic resources and wetland functions and values within the proposed ROW.
CU 112	The application states that topsoil will be segregated. Provide a revised Enclosure D of the Environmental Assessment that explains how the topsoil depth will be determined in the field. [25 Pa. Code §§105.15(a), and Environmental Assessment Instructions]	Topsoil depth varies considerably from site to site and within the site. Accordingly, topsoil depth will be determined in the field by experienced construction contractors and/or the EI through visual observation.
CU 113	Revise section B.1 of Enclosure C of the Environmental Assessment to be specific to Cumberland County. The watersheds listed are for	Section B.1 of Enclosure C has been revised to be specific to Cumberland County.

	Huntingdon County. [25 Pa. Code §105.15(a) & §105.21(a)(1)]	
CU 114	Revise section D.4 of Enclosure C of the Environmental Assessment to be specific to Cumberland County. The hiking and trails mentioned are located in Huntingdon County. Revise section B.4 d. of Enclosure D of the Environmental Assessment to discuss if hiking trails within the project boundary are associated with proposed water obstructions or encroachments. Revise section B.4 d. of Enclosure D of the Environmental Assessment to discuss the impact(s) to the trail(s), the length of time it is proposed to be closed, plans for signage and detours, and correspondence from any agencies or trail organizations regarding coordination of the closure. [25 Pa. Code §§105.13(e)(1)(x), 105.21(a)(1), 105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]	Section D.4 of Enclosure C has been revised to be specific to Cumberland County. Section B.4 d. of Enclosure D has been revised to note which hiking trails are associated with proposed water obstructions/encroachments, and to discuss the impacts to the trails.
CU 115	Revise section A.4.a of Enclosure C of the Environmental Assessment to be specific to Cumberland County. The IBA referenced is in Huntingdon/Blair County. [25 Pa. Code §§105.15(a), §105.21(a)(1)]	Section A.4.a of Enclosure C has been revised to be specific to Cumberland County.
CU 116	Revise section D.5 of Enclosure C of the Environmental Assessment to be specific to Cumberland County. The areas and habitats mentioned are located in Huntingdon County. [25 Pa. Code §§105.15(a), 105.21(a)(1)]	Section D.5 of Enclosure C has been revised to be specific to Cumberland County.
CU 117	Update and revise section A.3 of Enclosure D of the Environmental Assessment to discuss any avoidance and minimization measures relative to	Attachment 11, Enclosure D and Attachment 11, Enclosure E, Part 2 have been updated with avoidance and

	clearance for the Pennsylvania Historical and Museum Commission. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]	minimization measures relative to PHMC consultations to-date.
CU 118	Section A.3 of Enclosure D of the Environmental Assessment identifies the Allegheny Portage Railroad of the Pennsylvania Canal in Cumberland County, when it is located in Blair County. Revise this section to be accurate. [25 Pa. Code §§105.13(e)(1)(x), 105.21(a)(1), 105.15(a), 105.21(a)(1)]	Section A.3 of Enclosure D has been revised to address this comment.
CU 119	Revise section A.9 of Enclosure D of the Environmental Assessment to discuss and identify impacts to preserved farms and/or farms with agriculture preservation easements or restrictions. Discuss how the minimization measures would affect preserved farms and how they will be affected, such as not being able to replant an orchard or vineyard. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), 105.14(b)(4), Environmental Assessment Form Instructions]	Impacts of the Project, which includes an evaluation of water resource impacts, on these designations are provided in Attachment 11, Enclosure D, A.11 and Enclosure E, Part 2.
CU 120	Revise Enclosure D of the environmental assessment to discuss the impacts the proposed water obstructions and encroachments will have on any Important Bird Areas (IBA). In addition, identify if/how the recommendations in the USFWS letter dated June 24, 2016 are being addressed. [25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5), 105.15(a)]	Enclosure D of Attachment 11 has been revised to address this comment. In addition, to address the June 24 recommendations a Migratory Bird Conservation Plan was submitted to the USFWS in correspondence dated July 15, 2016. That correspondence and plan are included in Attachment 6, Tab 6B. The conservation plan addresses many of the USFWS recommendations for linear Projects, many of which have been implemented during planning and design for this Project, including paralleling ROWs and reducing workspaces.

CU 121	Revise Section B.1.c. of Enclosure D of the Environmental Assessment to discuss, any avoidance and minimization measures, and committing to implementing them. It currently states that clearances are being worked on. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.21(a)(1)]	Attachment 11, Enclosure D has been revised to address the comment and discuss the commitments implementing the avoidance and minimization measures. All clearances and conservation plans for threatened and endangered species on the Project have been received from the regulating agencies. The final avoidance and minimization commitments are detailed in the Project Description as well as within the PNDI documents presented in Attachment 6.
CU 122	Revise Enclosure D to discuss potential impacts to any Landscape Conservation areas, Core Habitats, Biological Diversity Areas, or other areas identified in section D.5 of Enclosure C areas from the proposed water obstructions and encroachments. [25 Pa. Code §§105.15(a), 105.14(b)(4)]	The impacts to the areas identified in the Environmental Study Areas section of Enclosure C are discussed within the revised Enclosure D provided in Attachment 11.
CU 123	Revise the description of wetland functions and values to not only include the principle functions and values, but all the functions and values the wetlands provide. [25 Pa. Code §§105.13(e)(2), 105.14(b)(13), 105.15(a)]	All functions and values have been evaluated for all wetlands. The Principal Functions and Values are identified on the Wetland Function-Value Evaluation for Exceptional Value wetlands at Attachment 11, Enclosure C. In many cases, all functions and values may be Primary; however, secondary functions and values are also identified for each wetland.
CU 124	Revise the Environmental Assessment to discuss the impacts to each wetland where a vegetative class change is proposed (ex. PFO to PSS). The discussion should be specific to the wetland and its functions and values. [25 Pa. Code §§105.14(b)(4), 105.14(b)(13), 105.14(b)(11), §105.15(a), 105.18a(b), 105.18a(a)]	All impacts to PSS classifications, Project-wide, will be replanted or allowed to revert to PSS wetlands; therefore there will be no conversion of PSS to PEM. In Cumberland County a single wetland will have 0.070 acre of unavoidable permanent PFO to PEM conversion. Attachment 11, Enclosure D, Section B.1 of the Environmental Assessment has been revised to discuss the impacts to each wetland where a vegetative class change is proposed; the discussion is specific to the wetland, its functions and values, and acreage affected.

CU 125	Section B.2.a of Enclosure D of the Environmental Assessment states the natural drainage patterns of the wetlands and small or headwater streams will be maintained. However, no information has been provided including detailed contours or cross sections depicting the drainage patterns, cross section, or what the drainage patterns are in the wetlands in their existing conditions. Explain how the final "restored" wetland elevations and natural drainage patterns of wetlands and streams will be determined. [25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.15(a), 105.18a(a), 105.18a(b)]	Site Specific Plans located in Attachment 7, Tab 7D have been revised to address complex aquatic resource crossings. For other areas, the construction and restoration methods are the same methods commonly used and standard for the industry, and are described in the Impact Minimization, Avoidance, and Mitigation Procedures (Attachment 11, Enclosure E, Part 4). These standards include adhering to DEP's General Permit 5 - Utility Line Stream Crossings and the USACE's Pennsylvania State Programmatic General Permit – 5 requirement that original grades must be restored after trenching and backfilling in wetlands, and that any excess fill material must be removed from the wetland and not spread onsite. These performance standards will be adhered to for this Project. These standard wetland utility installation crossing methods have been documented to result in successful restoration of wetland vegetation and hydrology. The information in these Site Specific Plans and E&S Plan Sheets provide details on how SPLP will determine final restored wetland elevations and natural drainage patterns of wetlands and streams.
CU 126	Revise Enclosure D of the Environmental Assessment to explain, on an individual crossing and cumulative basis, why open cut pipe installation combined with permanent ROW maintenance will not result in an adverse impact to exceptional value wetlands or a significant adverse impact to other wetlands. The analysis should include a discussion of potential temporary or permanent impacts to hydrology as a result of the open cut, as well as a loss of woody species in forested/scrub shrub areas. Provide a plan to	The Alternatives Analysis provided in Attachment 11, Enclosure E, Part 3 demonstrates SPLP's efforts to avoid and minimize impact to all wetland to the maximum extent practicable. The county-specific Project impacts provided in Attachment 11, Enclosure D and the Project-wide impacts provided in Attachment 11, Enclosure E, Part 2 demonstrate that the impacts to aquatic resources will be minor and temporary. The Project's E&S Plan provided in Attachment 12 and Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4, and Compensatory

	minimize the risk of permanent impacts to wetland hydrology for each wetland where an impact may occur. [25 PA Code §§105.13(e)(1)(ix) & 105.18a]	Mitigation Plan provided in Attachment 11, Enclosure F provide the plans and BMPs that minimize the risk of permanent impacts to wetland hydrology and ensure the impacts are minor and temporary in regards to construction and operations and maintenance of the permanent ROW. Attachment 11, Enclosure E, Part 6 also provides a Cumulative Impacts Assessment.
CU 127	Based on the information in the application, it is apparent that wetland functions and values are present in multiple wetlands which have not been identified in the functions and values assessments and descriptions table (ex. wildlife habitat, groundwater discharge/recharge, flood flow alteration, and nutrient removal). Based on the information provided, the functions and values have been applied inconsistently across the wetlands. Re-evaluate and revise the functions and values assessments and descriptions for all wetlands. [25 Pa. Code §§105.13(e)(2), 105.13(e)(3), 105.14(b)(13), 105.15(a)]	Functions and values have been evaluated consistently throughout all wetlands within the Project area and all applicable functions and values at each wetland have been identified. An updated function and values assessment is included in Attachment 11, Enclosure C.
CU 128	Wetlands are located in mapped soils with shallow bedrock and restrictive soil layers (i.e. fragipans), and the application's data sheets and functions and values assessment identifies shallow rock layers, shallow bedrock, and/or restrictive soil layers are present. Also, based on the functions and values descriptions wetlands may contain groundwater discharges, such as springs or may be concave and not connected to groundwater.	Impacts to wetland hydrology associated with open-cut construction vary depending on the wetlands primary source of hydrology, the wetlands position relative to the water table, and the underlying geology/soils (i.e., confining layer and/or fragipans to maintain hydrology). A restrictive layer is a layer in the soil/substratum profile that could slow or prevent the infiltration of water, potentially resulting in a perched water table. Restrictive layers could include, but are not limited to, consolidated bedrock, fragipans, dense glacial till, layers of silt or substantial clay content, strongly contrasting soil textures (e.g., silt over sand), or cemented layers, such as ortstein.

		In order to minimize impacts to wetlands that depend on a restrictive layer for hydrology, SPLP has conducted a thorough review the mapped soil units in combination with field data to determine if the soil unit has the potential to support fragipan wetlands and if the field data indicated that there was a refusal when characterizing the soils. Refusal is the depth at which a layer inhibiting the ability to dig deeper was reached. Refusal is not always indicative of a hydrologically restrictive layer (e.g., high gravel/cobble content, dense tree roots), but could be indicative of a shallow restrictive layer. A refusal layer may still be permeable; whereas, a restrictive layer is impermeable by definition. In wetlands where a confining layer or fragipan has been identified based on SPLP's assessment, or is encountered during the excavation of the trench, SPLP will have Professional Geologist (PG) work with the construction EIs. Specifically, the PG will field review all wetlands areas before and during trenching. During trenching, the PG will advise on the need to segregate confining layers for proper restoration of subsurface conditions following trenched construction. At wetlands determined to require confining layer restoration, the PG will also be on-site during subsurface soil backfilling to ensure proper soil layer restoration. The PG may advise on bentonite sandbag layering along the entire or portions of the trench line at the appropriate height if an identified confining layer cannot be segregated and/or restored. The PG will also provide technical expertise and oversight when karst/openings or groundwater seeps are encountered during trenching activities, and also when the presence of

		groundwater seeps and drains are encountered within wetland areas. Please see Attachment 11, Enclosure E, Part 2 for the discussion on impacts to hydrology, as well as the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 for details on confining layer identification and the SPLP's inspection program, including the provision of a PG.
CU 128.a	For each wetland to be impacted, identify the locations of restrictive layers which contribute to and/or maintain the wetlands' hydrology. [25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	An evaluation of soils where fragipan soils are located was completed and wetland data was evaluated for wetlands in those areas to identify site specific information to determine if a fragipan was present. Additionally, site specific soil information from wetland data forms for other wetlands within the Project area was reviewed to identify wetlands that had a restrictive layer. That evaluation has been included as part of the Functions and Values table at Attachment 11, Enclosure C.
CU 128.b	Identify and provide a discussion on any potential permanent impacts to wetland hydrology from excavation or alteration from construction of the proposed project. Provide a plan, plan sheets, cross sections, and other details which demonstrate that impacts to the wetlands' hydrology from alteration of restrictive layers have been avoided and minimized. [25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	See response to comment 128.
CU 128.c	Wetlands W-K41, K42, and J5 contain/may contain open water/seasonal inundation, based in the information provided in the application. Provide	Attachment 7, Tab 7D has been updated to include a site specific drawing for wetland K41. Wetland restoration is fully discussed in Attachment 12 E&S Plans as well as in

	site specific information on the hydrology and soils and data on why the wetlands maintain open water/seasonal inundation and provide site specific construction plans, cross sections, and restoration details to ensure that the hydrology and functions and values of the wetland is not altered and it continues to maintain inundation and seasonal hydrology. [25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.15(a), 105.18a(a)(1), 105.18a(a)(3), 105.18a(a)(4), 105.301(4), 105.301(5)]	Attachment 11, Enclosure E, Part 4. The Project implements standard utility line crossing methods across wetlands and these methods have been shown to not pose a significant risk to wetland hydrology or functions and values. Wetlands K42 and J5 are adjacent, but not encroached upon by the proposed Project. The county-specific Project impacts provided in Attachment 11, Enclosure D and the Project-wide impacts provided in Attachment 11, Enclosure E, Part 2 demonstrate that the impacts to aquatic resources will be minor and temporary. The Project's E&S Plan provided in Attachment 12 and Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4, and Compensatory Mitigation Plan provided in Attachment 11, Enclosure F provide the plans and BMPs that minimize the risk of permanent impacts to wetland hydrology and ensure the impacts are minor and temporary in regards to construction and operations and maintenance of the permanent ROW.
CU 129	Revise Enclosures C&D to assess the condition and discuss the condition of and impacts to forested and scrub shrub riparian areas. Revise the enclosures to discuss the primary impacts and secondary impacts, as well as consideration of antidegradation on watercourses for each watercourse crossing from the riparian vegetation impacts. [25 Pa. Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14)]	Attachment 11, Enclosure E, Part 2 discusses primary and secondary impacts to forested and scrub-shrub riparian areas; and Attachment 11, Enclosure E, Part 5 has been expanded to include an analysis of Chapter 105 antidegradation requirements related to forested riparian buffer impacts along watercourses crossed by the Project.
CU 129.a	In general, the Department recommends evaluating the riparian areas from the top of bank landward 100ft, and if the area utilized is less than 100ft justification should be given as to why. [25 Pa.	Riparian areas have been evaluated for each from 100 feet from each bank according to DEP's recommendation. The analysis discussing the effects of the Project on the riparian areas is provided in Attachment 11, Enclosure E,

	Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14), Riparian Forest Buffer Guidance, Document # 394-5600-001]	Part 2 (Project-wide Resource Identification and Project Impacts).
CU 129.b	To avoid and minimize the impacts to the watercourses, provide a plan to replace the vegetation lost in both permanent and temporary ROW and workspaces. Alternatively, where it cannot be replaced and provided protection from clearing during the proposed project's operation and maintenance, provide an explanation as to why it cannot be replaced. [25 Pa. Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14), 105.1, 105.14(b)(7)]	Except at above ground facilities including valve and pump stations, all previously vegetated temporary and permanent workspaces are restored to a vegetated state in accordance with the E&S Plan provided in Attachment 12. Also the BMPs for restoring and maintenance of these areas are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures found in Attachment 11, Enclosure E, Part 4.
CU 129.c	Revise the application plan drawings and project description, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is proposed as part of the proposed projects' construction, operation, and maintenance. Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement

		or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and maintenance. However, wetlands will not be cut or mowed during general operation and maintenance. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal. These areas will be allowed to revert; no future operations or maintenance will occur. The "Permanent Easement" depicted on the aerial site plans identifies the limits of SPLP's agreement with the affected landowner, and is an independent designation from proposed "Permanent Impacts" and "Temporary Impacts". In areas not identified as "Permanent Impacts" or "Temporary Impacts" within the "Permanent Easement", no permanent or temporary vegetation cutting, clearing, grubbing, removal, and/or maintenance is

		proposed. The "Permanent Easement" is depicted on the aerial site plans in response to previous DEP requests to show the limits of the permanent easement in areas where "Permanent Impacts" and "Temporary Impacts" are not proposed, and does not represent a DEP Chapter 105 jurisdictional area.
CU 130	To aid in evaluating the condition of and change in condition to watercourses and wetlands as discussed in other comments, the Department recommends utilizing the Draft Pennsylvania Riverine Condition Level 2 Rapid Assessment Protocol and the Draft Pennsylvania Wetland Condition Level 2 Rapid Assessment Protocol. These protocols are not for identifying the functions and values of the resources, but rather are utilized to assess the current and proposed conditions of the resources. [25 Pa. Code §§105.14(a), 105.14(b)(4), 105.14(b)(13), 105.14(b)(12), 105.15(a), 105.13(e)(1)(x)]	Conditions of the waterbodies and wetlands have been documented in the Aquatic Resource Reports and Addendums, and within the functions and value assessments. Wetland and stream restoration will be performed at each wetland according to Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4. Each procedure and method of crossing is provided and designed to ensure wetland hydrology, vegetation, soils, and functions and values are restored and each stream bed and bank are restored. Project Impacts are discussed within Attachment 11, Enclosure D and Enclosure E, Part 2 and demonstrate that unavoidable impacts to aquatic resources are temporary and minor.
CU 131	The Mitigation Plan appears to indicate that streams and wetlands which will be crossed by HDD are not proposed to have vegetative impacts either during construction or during operation and maintenance of the proposed pipelines. However, it is unclear on the plan drawings and in the application narrative precisely if vegetation cutting, clearing, removal, or grubbing is or is not part of the proposed construction, operation, and maintenance. Where Horizontal Directional Drill (HDD) and Bore crossings of resources are	SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas.

	proposed a Permanent Easement is identified and impacts are identified as permanent only for the pipe size itself, and at other resource crossings a permanent ROW is identified and impacts are identified as permanent for the entire ROW. No explanation has been provided in the application for this different nomenclature.	As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and maintenance. However, wetlands will not be cut or mowed during general operation and maintenance. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal. The "Permanent Easement" depicted on the aerial site plans identifies the limits of SPLP's agreement with the

		affected landowner, and is an independent designation from proposed "Permanent Impacts" and "Temporary Impacts". In areas not identified as "Permanent Impacts" or "Temporary Impacts" within the "Permanent Easement", no permanent or temporary vegetation cutting, clearing, grubbing, removal, and/or maintenance is proposed. The "Permanent Easement" is depicted on the aerial site plans in response to previous DEP requests to show the limits of the permanent easement in areas where "Permanent Impacts" and "Temporary Impacts" are not proposed, and does not represent a DEP Chapter 105 jurisdictional area.
CU 131.a	Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	See the response to See the response to CU 131.
CU 131.b	Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities.[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(i), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	See the response to CU 131. Maintenance activities are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures located in Attachment 11, Enclosure E, Part 4.
CU 131.c	If construction, normal operation, or normal maintenance activities will require the clearing, cutting, removal, or other alteration of the	As explained in the Project Description (Attachment 9), construction and normal operation and maintenance activities will require the clearing, cutting and mowing of

	vegetation in or adjacent to the wetland and streams the application must be revised to identify and discuss in detail the primary impacts and secondary impacts to these resources from the proposed project. The applications Environmental Assessment should be revised to discuss the resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources. [25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.14(b)(11), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]	vegetation along areas of the ROW in and adjacent to wetlands and streams. Normal operations and maintenance activities will not involve the removal/denuding of vegetation along the ROW. Attachment 11, Enclosure E, Part 2 (Project-wide Resource Identification and Impacts) discusses direct and secondary impacts to such vegetation as a result of construction and operation/maintenance activities. The permanent impacts to wetland vegetation (i.e., permanent conversion of vegetation cover type) due to normal operation and maintenance activities have been accounted for in the calculation of wetland impacts (Attachment 11, Table 2) and are being mitigated for in the Compensatory Mitigation Plan (Attachment 11, Enclosure F).
CU 132	The Mitigation Plan implies through mention of "No Mow" signs that PSS and PFO wetlands which will be crossed by open cut methods are not proposed to have vegetative impacts after they are re-vegetated following construction during the operation and maintenance of the proposed pipelines. However, it is unclear on the plan drawings and in the application narrative precisely if vegetation cutting, clearing, removal, or grubbing is or is not part of the proposed operation, and maintenance of the proposed pipelines.	The majority of wetland areas will be restored using standard restoration measures outlined within the Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4. These procedures also detail construction, operation, and maintenance procedures in wetlands. The procedures document also includes a "Special Plantings" section that identifies all PFO and PSS impact areas that will be restored through PSS and PFO plantings as well as how these areas are protected during operation.
CU 132.a	Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. [25 Pa.	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A to more clearly explain these

	Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and maintenance. However, wetlands will not be cut or mowed during general operation and maintenance. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for

		temporary vegetation cutting, clearing, grubbing, and removal. The "Permanent Easement" depicted on the aerial site plans identifies the limits of SPLP's agreement with the affected landowner, and is an independent designation from proposed "Permanent Impacts" and "Temporary Impacts". In areas not identified as "Permanent Impacts" or "Temporary Impacts" within the "Permanent Easement", no permanent or temporary vegetation cutting, clearing, grubbing, removal, and/or maintenance is proposed. The "Permanent Easement" is depicted on the aerial site plans in response to previous DEP requests to show the limits of the permanent easement in areas where "Permanent Impacts" and "Temporary Impacts" are not proposed, and does not represent a DEP Chapter 105 jurisdictional area.
CU 132.b	Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities.[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(i), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	See the response to CU 132a. Maintenance activities are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures located in Attachment 11, Enclosure E, Part 4.
CU 132.c	If construction, normal operation, or normal maintenance activities will require the clearing, cutting, removal, or other alteration of the vegetation in or adjacent to the wetlands the application must be revised to identify and discuss in detail the primary impacts and secondary impacts to these resources from the proposed project. The applications Environmental	As explained in the Project Description (Attachment 9), construction and normal operation and maintenance activities will require the clearing, cutting and mowing of vegetation along areas of the ROW in and adjacent to wetlands and streams. Normal operations and maintenance activities will not involve the removal/denuding of vegetation along the ROW. Attachment 11, Enclosure E, Part 2 (Project-wide

	Assessment should be revised to discuss the resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources from these impacts. [25 Pa. Code §§105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.15(a), 105.11(d), 105.13(e)(1)(ix), 105.18a(a), 105.18a(b)]	Resource Identification and Impacts) discusses direct and secondary impacts to such vegetation as a result of construction and operation/maintenance activities. The permanent impacts to wetland vegetation (i.e., permanent conversion of vegetation cover type) due to normal operation and maintenance activities have been accounted for in the calculation of wetland impacts (Attachment 11, Table 2) and are being mitigated for in the Compensatory Mitigation Plan (Attachment 11, Enclosure F).
CU 133	The Mitigation Plan and Environmental Assessment state that conversion of Palustrine Forested Wetlands (PFO) is proposed to occur, that there will be a functional loss, but the loss is de minimus.	Comment is addressed below.
CU 133.a	Revise the Mitigation plan to replant the PFO wetlands in the permanent and temporary ROW with native trees if possible, and if not possible provide specific details and documentation on why this is not possible. [25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	In conventional lay areas, the pipelines will be trenched to achieve 4 feet of cover. Trees are excluded from the permanent ROW to allow aerial safety inspections, as well as provide access for repair and prevent the pipelines from being compromised by tree growth. However, please refer to the Impact Avoidance, Minimization, and Mitigation Procedures (Attachment 11, Enclosure E, Part 4) that demonstrates additional efforts to maximize PFO restoration within the permanent ROW.
CU 133.b	Based on the Mitigation Plan, PSS wetlands are acceptable in the permanent ROW. Therefore, if replanting of PFO wetlands in the permanent or temporary ROW is not possible, revise the mitigation plan to replant converted PFO wetlands in the ROW with shrubs. [25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	The application has been revised to include restoration plantings in PSS and PFO areas within the permanent ROW to reduce the amount of permanent vegetation covertype conversion in these areas. The total acreage of PFO located in the proposed permanent ROW in Cumberland County is 0.070 acre across one wetland. SPLP evaluated the opportunity to restore this PFO area with trees to restore the functions and values of PFO. However, the entire 0.070 acre of PFO conversion in the

		permanent ROW is within 10 feet of the pipelines and is not feasible to replant. Therefore, there will be a permanent conversion of PFO to PEM wetland in Cumberland County that is limited to 0.070 acre. Given this size of the conversion area and the location centered on the pipeline initial conversion will be to PEM. The application has been revised to include restoration plantings in these areas and the details are provided within the E&S Plan provided in Attachment 12 and in the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4, and the Compensatory Mitigation Plan at Attachment 11, Enclosure F.
CU 133.c	The application does not evaluate the cumulative conversion of PFO wetlands for the entire project. The applications for Blair, Huntingdon, Juniata, Perry, Cumberland, York, Dauphin, Lebanon, Lancaster, and Berks Counties within the Department's Southcentral Region propose a conversion on approximately 0.528 acre of PFO wetlands. Based on the Department's review of the impacts for PFO wetlands, compensatory mitigation is required to offset the identified PFO functional impacts of conversion to PSS. Revise the application to assess the impact to the effected forested wetlands, evaluate the cumulative effect on all counties of the proposed project, and provide compensatory replacement for the lost functions and values. [25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(viii), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.15(a), 105.18a(a), 105.18a(b), 105.20a(a)(2)]	A stand-alone alternatives analysis document, which evaluates the cumulative conversion of PFO wetlands for the entire Project, has been added to the application materials and is located in Attachment 11, Enclosure E, Part 3. The stand-alone compensatory mitigation plan has been revised and is located in Attachment 11, Enclosure F.

CU 134	The Mitigation Plan states that for HDD crossings, a telemetry guidance system will be used.	NA
CU 134.a	Revise the application to identify what type of telemetry guidance system will be utilized; specifically if it will utilize cables, wires, or other obstructions placed or strung across waters of the Commonwealth. [25 Pa. Code §§105.13(e)(1)(iii), 105.13(e)(1)(i), 105.301(7)]	Telemetry guidance systems for HDDs can include a cable, wire, or other obstructions to be placed in waters of the Commonwealth.
CU 134.b	If cables, wires, or other obstructions will be utilized across waters of the Commonwealth revise the application to identify these temporary impacts, include them in the impact tables. Provide plan drawings and cross sections depicting the obstructions, and provide information on the purpose, function, and length of time they will be installed. [25 Pa. Code §§105.13(e)(1)(i), 105.301(3), 105.301(5), 105.15(a), 105.13(e)(1)(iii)]	When used, the HDD cable will be aligned along the proposed pipeline centerline (above the drill path); accordingly, the impact calculations and application fees are already accounted for within the application. For HDDs of waters of the Commonwealth where a telemetry guidance system will consist of cables, wires, or other obstructions to be placed in waters of the commonwealth, and as required based on SPLP's coordination with PA Fish and Boat Commission, an Aids to Navigation (ATON) Plan has been prepared and provided in Attachment 7B. No ATON plans were required for stream crossings in Cumberland County. This plan explains the use and placement of this telemetry guidance system, includes plan and profile drawings, and describes the length of time it will be present in the resource.
CU 134.c	If cables or other obstructions are proposed over streams, an Aids-To-Navigation (ATON) Plan may be required by the PA Fish and Boat Commission; therefore, if cables or other obstructions are proposed, provide approved ATON plans along with approvals and/or documentation from the PA Fish and Boat Commission documenting where ATON plans are not applicable. Contact Thomas Burrell with the Pennsylvania Fish and Boat	For HDDs of waters of the Commonwealth where a telemetry guidance system will consist of cables, wires, or other obstructions to be placed in waters of the commonwealth, and as required based on SPLP's coordination with PA Fish and Boat Commission, an Aids to Navigation (ATON) Plan has been prepared and provided in Attachment 7, Tab 7B. No ATON plans were required for stream crossings in Cumberland County.

	Commission at 717.705.7838 regarding ATON requirements. [25 Pa. Code §§105.14(b)(6), 105.21(a)(2), 105.14(b)(2)]	
CU 135	The application states that temporarily impacted Palustrine Scrub Shrub (PSS) and PFO wetlands will be replanted with native trees and shrubs, PSS wetlands in the permanent ROW will be planted with wetland shrubs, and PFO wetlands in the permanent ROW will be allowed to revert to PSS/PEM wetlands. Provide planting plans and details for these areas and for the replanting of PFO areas in the permanent and temporary ROWs. The planting plans must identify the locations of the plantings and wetlands, the species to be planted, the planting density, the proposed size of the plantings, planting timing, goals and objectives for success, and a monitoring plan to ensure re-establishment. [25 Pa. Code §§105.13(e)(1)(ix), 105.18a(a),105.18a(b), 105.20a]	The planting plans for the restoration of PSS and PFO areas is provided in the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4. The procedures provide for the locations, species to be planted, density, size, timing, goals, and objectives, and monitoring for successful restoration.
CU 136	Section 2.2.2.1 of the Mitigation Plan, Construction in Wetlands with Unsaturated Soils, conflicts with the rest of the application, which identifies that all wetland crossings will be crossed with mats or pads. Crossing unsaturated wetlands without timber mats would contribute to soil compaction, rutting, and disturbance of the cut vegetation’s roots. Therefore, revise the Mitigation Plan to identify that all wetland crossings shall use mats or pads. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]	The Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 has been revised to indicate that temporary wetland matting will be used along the travel lane where any staging or work areas are proposed in wetlands regardless of the wetlands' saturated condition.
CU 137	Section 2.2.2.1 of the Mitigation Plan identifies that wetlands will be reseeded with a native wetland	The Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part

	seed mixture; however, the mixture is not specified nor is it proposed on the plans. Revise the application to identify the seed mixture to be used and revise the E&S plans to indicate its use for wetland restoration in the Typical Wetland Restoration detail. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(13)]	4 includes the details for standard and site-specific (including restored PSS and PFO habitats) wetland restoration, as well as invasive species control, monitoring, and reporting.
CU 138	The HDD list at the end of the Inadvertent Return Contingency Plan in the Mitigation Plan identifies HDD crossings with notes as "Drive Through – Travel Only" which are not identified on the plan drawings or applications as being "Drive Through – Travel Only". Revise this information to be accurate and consistent with the rest of the application. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(i), 105.13(e)(1)(iii)]	The table in the IR Plan has been updated to contain this information. The revised plan is provided in Attachment 12, Tab 12C.
CU 139	The application contains HDD Inadvertent Return Contingency Plans in multiple sections of the application, such as the Mitigation Plan and different species conservation plans. However, the Contingency Plans are not all consistent in terms of agency notifications, and the PAFBC Law Enforcement is not identified as being notified as required in the PAFBC PNDI clearance letter. Also, the HDD table is not included in all versions of the Contingency Plan. Revise the HDD Inadvertent Return Contingency Plans to all be consistent, include the appropriate jurisdictional agencies, and provide documentation that revised plans have been sent to all jurisdictional agencies. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.14(b)(4)]	The contingency plan has been revised and re-titled to be Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plan (IR Plan). This revised IR Plan is located in Attachment 12, Tab 12C. Note that the older version of this plan is still contained within the application in connection with the documentation of early agency coordination efforts. The PAFBC, PGC, DCNR, and USFWS have been sent the revised IR Plan and copies of this correspondence is provided in Attachment 6, Tab 6B.

CU 140	The Alternatives Analysis states that the Alternatives Analysis is meant to be a summary of major actions taken to avoid/minimize impacts. The Alternatives Analysis must be a detailed analysis of alternatives, including alternative locations, routings, or designs to avoid or minimize adverse impacts and document and provide evidence that there is no practicable alternative which would not involve a wetland or that would have less adverse impact on a wetland. In addition, for the project to be water dependent as stated in the Alternatives Analysis, it must be based on the demonstrated unavailability of any alternative route location, or design or use of location, route or design to avoid or minimize adverse impacts. Revise the Alternatives Analysis to provide a detailed analysis of alternative routings, locations, and designs to avoid and minimize impacts and provide detailed documentation and evidence that there are not practicable alternatives which would further avoid and minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)(2), 105.18a(a)(3), 105.18a(b)(2), 105.18a(b)(3)] In addition, address the following specific comments regarding the Alternatives Analysis:	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to provide a detailed analysis of alternative routings, locations, and designs to avoid and minimize impacts and to provide documentation/evidence that there are no practicable alternatives that would further avoid and minimize impacts.
CU 140.a	The Alternatives Analysis states that the proposed project was co-located with and existing ROW for the majority of the route. However, multiple deviations away from the existing Sunoco pipeline occur within Cumberland County and no information, details, or documentation on why the	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	route deviated away from the existing ROW was given, or on alternate route selection to avoid and minimize impacts. Provide a detailed alternatives analysis which contains evidence and documentation on potential and avoided impacts for the existing alignment, proposed alignment, and other potential route alignments which documents that impacts cannot be further avoided and minimized. The following route alignments in Cumberland County have been identified which deviate widely from the existing Sunoco ROW: The stream S-I57 to stream S0I50 route deviation; and the steam UNK 11 Ch. 106 area to East of stream S-I40 route deviation. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.b	Revise the Alternatives Analysis to discuss, evaluate, and provide a detailed analysis on alternative routes to avoid and minimize impacts to High Quality Streams and watersheds.[25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
CU 140.c	Revise your alternatives analysis to discuss routing alternatives that were considered as alternatives to impacts Exceptional Value wetlands. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
CU 140.d	Some portions of the proposed ROW and pipelines directly abuts the maintenance corridor of the existing Sunoco pipeline; however, in other portions the proposed ROW has partial or near complete overlap with the existing maintenance area and pipeline. No discussion on this is provided in the alternatives analysis, and it appears that more overlap of the proposed ROW and the existing	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	Sunoco Maintenance corridor is practicable and would further avoid and minimize impacts. Revise the application accordingly to avoid and minimize impacts by locating the proposed ROW with overlap of the existing maintenance corridor, or provide a detailed analysis and discussion with specific details explaining why this overlap is present in some areas and not others, and why the proposed ROW cannot further overlap. [25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii), 105.18a(a), 105.18a(b)]	
CU 140.e	It appears that several waters of the Commonwealth could be crossed using trenchless installation methods. Revise the application accordingly, or provide a revised alternatives analysis that incorporates a discussion of alternative crossing techniques (conventional bore, HDD, micro-tunneling, etc.)that includes documentation and evidence addressing each resource crossing and explaining why trenchless installation methods are not appropriate. [25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3),	The Alternatives Analysis provided in Attachment 11, Enclosure E, Part 3 has been revised to include a discussion on the limitations of trenchless methods and presents an attached trenchless feasibility assessment.
CU 140.f	It appears, but is not described in the application, that HDD was assumed by the applicant to be the crossing method presenting the least potential impact to water resources and aquatic species. Revise the alternatives analysis to provide justification for the selection of which water resource (streams and wetlands) crossings will be made by HDD. [25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3), 105.13(e)(1)(viii)]	A stand-alone alternatives analysis document, which presents the justification for the selected wetland and stream crossings that will be made by HDD, has been added to the application materials and is located in Attachment 11, Enclosure E, Part 3. The alternatives analysis includes and incorporates relevant information by reference presented in a stand-alone trenchless feasibility assessment, which is located in Attachment 11, Enclosure E, Part 3, Appendix C.

CU 140.g	It appears that primary impacts and secondary impacts from the Temporary ROW and ATWS's can be avoided by locating them outside the floodway of streams. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	As demonstrated in the Alternatives Analysis, the Project has been designed to avoid and minimize impacts to wetlands and waterbodies (including streams and floodways of streams) to the extent feasible. SPLP has narrowed the Project ROW from 75 to 50 feet at resource crossings, and therefore necessarily relocated temporary workspace (including Temporary ROW and ATWSs) adjacent to streams (and/or floodways) in order to install the pipeline effectively and to restore disturbed workspace as efficiently as possible. Furthermore, the Project would implement E&S controls during construction and primary and secondary impacts at these workspaces would be temporary in nature and restored to existing conditions. Please refer to Attachment 11, Enclosure D, Project Impacts for additional discussion.
CU 140.h	It appears that impacts to wetland I62 could be avoided and minimized by re-locating the alignment to the South of the wetland. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.i	It appears that impacts to wetlands I64 and W33d could be avoided and minimized by re-locating the alignment to the North of the wetlands. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

	and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.j	It appears that impacts to wetland K16 and stream S-K14 could be avoided and minimized by re-locating the alignment to the North of the wetland and the multiple stream channels. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.k	It appears that impacts to wetlands K14 and K15 could be avoided and minimized by re-locating the alignment to the North of the wetlands. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.l	It appears that impacts to wetland K12 and K13 could be avoided and minimized by re-locating the alignment to the South of the wetlands on the south side of the existing Sunoco Maintenance Corridor.	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

	Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.m	It appears that impacts to wetlands K11 and stream S-K6 could be avoided and minimized by re-locating the alignment to the North of the wetland and the multiple stream channels confluence. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.n	It appears that impacts to wetland I54 could be avoided and minimized by re-locating the alignment to the North and cross the wetland at a narrower point, or further North or South to avoid the wetland. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

CU 140.o	It appears that impacts to wetlands I55, I56, and W22d could be avoided and minimized by re-locating the alignment to the North. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.p	It appears that impacts to wetland I58 could be avoided and minimized by re-locating the alignment slightly to the East. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.q	It appears that impacts to wetlands I60 and I61 could be avoided and minimized by re-locating the alignment farther South. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

CU 140.r	It appears that impacts to wetlands K7 and K9, and stream S-K4 could be avoided and minimized by re-locating the alignment to the South of the existing Sunoco Maintenance Corridor. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.s	It appears that impacts to wetlands K5 and W19d could be avoided and minimized by re-locating the alignment farther North. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU140.t	It appears that impacts to wetlands K2 and K3, and stream S-K2 could be avoided and minimized by re-locating the alignment to the South or North to avoid wetland impacts and minimize stream impacts by crossing the stream more perpendicular. Alternatively, if this is not practicable, it appears at least that the pipelines could be located in the Northern portion of the proposed ROW to cross the stream more perpendicular. Revise the application accordingly to avoid and minimize impacts, or	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

	provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.u	It appears that impacts to wetland BB155 could be avoided and minimized by continuing the proposed pipeline alignment Farther West on the South side of the existing Sunoco Maintenance Corridor. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.v	It appears that impacts to wetland J27 could be avoided by locating the proposed alignment farther to the East. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.w	It appears that impacts to wetlands J26, J25, W14e, and J24 could be avoided and minimized by locating the proposed alignment and ROW on the North of the existing Sunoco Maintenance	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

	Corridor. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.x	It appears that impacts to wetland J21 could be avoided by locating the proposed alignment farther South. If this is not practicable, it appears impacts could be minimized by locating the proposed pipelines farther South within the proposed ROW. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.y	It appears that impacts to wetlands J20, I48, and I49, and streams S-I77, S-I75, and S-I76 could be avoided and minimized by re-locating the alignment to the South to avoid and minimize stream impacts by crossing the streams more perpendicular and crossing less area of wetlands. Alternatively, if this is not practicable, it appears at least that the pipelines could be located in the Southern portion of the proposed ROW to cross the stream more perpendicular. Revise the application accordingly to avoid and minimize impacts, or	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

	provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.z	It appears that impacts to wetlands I46, I45, and I44 could be avoided and minimized by locating the proposed alignment and ROW on the North of the existing Sunoco Maintenance Corridor. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.aa	It appears that impacts to stream S-I65 could be avoided and minimized by locating the pipelines farther south within the proposed ROW to cross the stream in a more perpendicular manner. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
CU 140.bb	It appears that the temporary impacts to the PFO portion of wetland I38 from the ATWS area could be avoided. Revise the application accordingly to	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See

	avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.cc	It appears that impacts to wetland I38 could be avoided and minimized by locating the proposed alignment and ROW on the South of the existing Sunoco pipeline and Maintenance Corridor. If this is not practicable, it also appears that impacts to this wetland could be minimized by crossing the wetland farther East and minimizing PFO conversion impacts. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.dd	It appears that impacts to wetland J13 could be avoided by locating the proposed alignment farther to the South. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)

CU 140.ee	It appears that impacts to wetland K41 could be avoided by locating the proposed alignment farther to the North. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.ff	The Alternatives Analysis' discussion on alternatives to avoid and minimize impacts for wetland I36 and J13 states that the alignment originally paralleled Sunoco's existing ROW but has been relocated further southeast. In addition, it states this is to avoid Mechanicsburg, PA. However, the proposed map for I36 discussion doesn't depict the existing ROW, it appears the proposed Route is North of the existing ROW, and this reroute does not avoid Mechanicsburg, PA. Provide detailed alternatives analysis on this re-route, including other routes and impacts documenting that there is not practicable alternative to further avoid and minimize impacts. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. This should include specific details and quantification which documents that other routes and designs	Wetland I36 is proposed to be crossed using HDD methods. Therefore, there will be no disturbance in this wetland and impacts to the wetland will be avoided. The wetland acreage impacts that are listed in the wetland impacts table (Attachment 11, Table 2), represent calculations of the pipe width multiplied by the length of the crossing under the wetland per DEP's guidance, and not actual disturbance. Wetland J13 is addressed in the Alternatives Analysis in Attachment 11, Enclosure E, Part 3.

	would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
CU 140.gg	Revise the alternatives analysis to discuss and analyze alternative construction methods for the crossing of S-I47, S-I48, and wetlands I30, I31, and I32 to minimize impacts and risk of potential impacts, such as inadvertent returns. The analysis should discuss, at a minimum, conventional bore, micro-tunneling, and open cut trenching installation, and discuss the potential impacts from each, including the potential for inadvertent returns and pollution events caused by a return. Revise the application to include the least impact method of construction. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	Wetlands I30, I31, and I32 and waterbodies (streams) S-I47 and S-I48 are proposed to be crossed using HDD methods. Therefore, there will be no disturbance in these wetlands and waterbodies and impacts to the wetlands and waterbodies will be avoided. The wetland and waterbody acreage impacts that are listed in the wetland and waterbody impacts table (Attachment 11, Tables 2 and 3), represent calculations of the pipe width multiplied by the length of the crossing under the wetland/waterbody per DEP's guidance, and not actual disturbance.
CU 140.hh	It appears that the temporary impacts proposed to wetland KP2 could be avoided by locating the temporary access road to the North or by narrowing the temporary access road. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment. (See Appendix D - Wetland-Specific Practicable Alternatives Analysis.)
CU 140.ii	The Alternatives Analysis states that reroutes North or South of wetland I25 are not feasible due to the proximity of residences and other structures. However, no information has been provided showing any residences nearby and the aerial	Wetland I25 is proposed to be crossed using HDD methods. Therefore, there will be no disturbance in this wetland and impacts to the wetland will be avoided. The wetland acreage impacts that are listed in the wetland impacts table (Attachment 11, Table 2), represent

	photograph provided in the Alternatives Analysis depicts and open field. Revise the application to avoid or minimize impacts, or provide documentation supporting the claim of residences and structures. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	calculations of the pipe width multiplied by the length of the crossing under the wetland per DEP's guidance, and not actual disturbance.
CU 141	Provide consistent and up-to-date plans to the Department and Lower Mifflin, Upper Frankford, Lower Frankford, North Middleton, Middlesex, Monroe, Silver Spring, Upper Allen, and Lower Allen Townships. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi), 105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C)]	Updated site plans are provided in Attachment 7, Tab 7A as part of this submittal to DEP and in Attachment 14 as submitted to Lower Mifflin, Upper Frankford, Lower Frankford, North Middleton, Middlesex, Monroe, Silver Spring, Upper Allen, and Lower Allen Townships.
CU 142	The following comments pertain to the plans provided to the townships in Cumberland County.	NA - Heading
CU 142.a	Sheet 186 of 321 provided to Lower Allen Township identifies an existing block valve that is not shown on Sheet 59 of Tab 7A. There has also been a change in the placement of the proposed permanent access road on Sheet 59. Provide consistent and up-to-date plans to the Department and Lower Allen Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Lower Allen Township and that correspondence is provided in Attachment 14.
CU 142.b	Sheet 59 of Tab 7A shows a proposed block valve setting LOD substantially larger than that shown on Sheet 186 of 321 provided to Lower Allen Township. Provide consistent and up-to-date plans to the Department and Lower Allen Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Lower Allen Township and that correspondence is provided in Attachment 14.

CU 142.c	Sheet 189 of 321 provided to Lower Allen Township and Sheet 62 of Tab 7A show different HDD lengths. Provide consistent and up-to-date plans to the Department and Lower Allen Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistency. Updated mapping has been provided to Lower Allen Township and that correspondence is provided in Attachment 14.
CU 142.d	Chapter 110-11.N of the Lower Allen Township Ordinance states that all utilities, such as gas lines, electrical and telephone systems, placed in designated floodplain districts shall be located, elevated, where possible, and constructed to minimize the chance of impairment during a flood. [25 Pa. Code § 105.13(e)(1)(vi)]	A small portion of the Project pipeline ROW would cross a FEMA designated Special Flood Hazard Area (100-year floodplain/Zone AE) and a FEMA floodway in Lower Allen Township; however, the Project would cross this area using HDD construction methods to avoid and minimize surface disturbance within the floodplain and the floodway. The pipeline would be buried underground and would be flood-proofed, minimizing the chance of impairment during a flood. In addition, the Project would undergo hydrostatic testing to ensure the integrity and safe operations of the pipeline. SPLP received a consistency determination response from Lower Allen Township for the Project on June 1, 2016. According to the response, Lower Allen Township reviewed the documents submitted by SPLP for the Project, and the Project is consistent with the Township's Floodplain Management Ordinance. Copies of the correspondence with Lower Allen Township regarding floodplain consistency are provided in Attachment 14.
CU 142.e	Article 6.11 of the Lower Frankford Township Ordinance states that no new construction or development shall be located within the area measured fifty (50) feet landward from the top-of-bank of any watercourse, whether or not such area is located in a FP, Flood Plain Conservation District. There are several stream crossings within	Article 6.09 of the Lower Frankford Township Ordinances states that "utility facilities such as…pipe lines" are permitted in a Flood Plain Conservation District. Article 6.13 of the Township Ordinance indicates that variance procedures exist to amend the boundaries of the Flood Plain Conservation District, but no variance was requested during correspondence with

	Lower Frankford Township that do not meet this regulation. Lower Frankford Township provided a consistency letter. Clarify this discrepancy and provide alternatives. [25 Pa. Code § 105.13(e)(1)(vi)]	Lower Frankford Township. On January 20, 2016, Lower Frankford Township confirmed to SPLP, via email, that the Project is consistent with the FEMA Floodplain Management Program effective in the Township. See Attachment 14 Stormwater Management Analysis for a copy of the January 20, 2016 communication with Lower Frankford Township.
CU 142.f	There are ATWS areas and an access road shown on Sheet 17 of Tab 7A that are not identified on Sheet 144 of 321 provided to Lower Frankford Township. Provide consistent and up-to-date plans to the Department and Lower Frankford Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Lower Frankford Township and that correspondence is provided in Attachment 14.
CU 142.g	Sheet 33 of Tab 7A indicates a substantially larger block valve setting LOD than Sheet 160 of 321 provided to Middlesex Township. Provide consistent and up-to-date plans to the Department and Middlesex Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Middlesex Township and that correspondence is provided in Attachment 14.
CU 142.h	Sheets 35 and 36 of Tab 7A show different HDD lengths than sheets 162 and 163 of 321 provided to Middlesex Township. Provide consistent and up-to-date plans to the Department and Middlesex Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Middlesex Township and that correspondence is provided in Attachment 14.
CU 142.i	HDD paths are different between Sheets 164 and 165 of 321 provided to Middlesex Township and Sheets 36 and 37 of Tab 7A. Provide consistent and up-to-date plans to the Department and	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Middlesex Township and that correspondence is provided in Attachment 14.

	Middlesex Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	
CU 142.j	HDD lengths are different between Sheets 166, 167, and 168 of 321 provided to Middlesex Township and Sheets 39, 40, and 41 of Tab 7A. Provide consistent and up-to-date plans to the Department and Middlesex Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	TThe mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Middlesex Township and that correspondence is provided in Attachment 14.
CU 142.k	HDD lengths are different between Sheet 182 of 321 provided to Upper Allen Township and Sheet 55 of Tab 7A. Provide consistent and up-to-date plans to the Department and Upper Allen Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Upper Allen Township and that correspondence is provided in Attachment 14.
CU 142.l	There is a temporary access road on Sheet 183 of 321 provided to Upper Allen Township that is not shown on Sheet 56 of Tab 7A. Provide consistent and up-to-date plans to the Department and Upper Allen Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Upper Allen Township and that correspondence is provided in Attachment 14.
CU 142.m	HDD paths are different between Sheet 184 of 321 provided to Upper Allen Township and Sheet 57 of Tab 7A. Provide consistent and up-to-date plans to the Department and Upper Allen Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Upper Allen Township and that correspondence is provided in Attachment 14.
CU 142.n	Sheet 48 of Tab 7A shows a substantially larger block valve setting LOD than sheet 175 of 321 provided to Silver Spring Township. Provide consistent and up-to-date plans to the Department	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Silver

	and Silver Spring Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	Spring Township and that correspondence is provided in Attachment 14.
CU 142.o	The temporary access road that crosses Stream S-BB83 on Sheet 37 of Tab 7A is not the same as the access road shown on Sheet 164 of 321 provided to Middlesex Township. Provide consistent and up-to-date plans to the Department and Middlesex Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) & § 105.13(e)(1)(i)(C)]	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date plans. Updated mapping has been provided to Middlesex Township and that correspondence is provided in Attachment 14.
CU 143	If any changes to the proposed route occur, revise all parts, components of the application to reflect these changes. This includes providing copies of the submission to and clearance from the PHMC, USFWS, PFBC, DCNR, and PGC. [25 Pa. Code §§105.13(e)(1), 105.21(a)(1)]	The attached Application represents the proposed route, facilities and workspaces. SPLP previously submitted a final request for determination letter from USFWS, PFBC, DCNR and PGC where the Project was described consistent with the attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Clearances from all four agencies have been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9 and details provided in Attachment 6, Tab 6B. With respect to the PHMC, see the response to CU 8.
CU 144	Please respond to and address the comments from the Pennsylvania Fish and Boat Commission found on the attached sheet. Due to the number of crossings and time-of-year restrictions, the Department recommends identifying the time-of-	To ensure contractor compliance, SPLP has developed a state-of-the-art web-based mapping applications that is required to be used by the contractor to determine all special environmental restrictions such as PNDI and trout stream restrictions. All of the restrictions and avoidance measures committed to and approved by PNDI agencies

	year restrictions on the plans. [25 Pa. Code §§105.14(b)(4), 105.14(b)(6)]	are included in the Project Description within a summary table and within the PNDI agency final determination letters and accepted Conservation Plans included in Attachment 6, Tab B. The same notes in the Project Description are reflected within the E&S Plan notes. Trout stream restrictions and other sensitive species restrictions are also noted on aerial site plans and E&S Plans, however due to the senstive nature of the some of the information not all is depicted. SPLP will implement a comprehensive Environmental Training and Inspection program designed specifically to ensure contractors are appropriate notified and are adhering to such restrictions.

SPLP appreciates your timely review of the revision. Please contact Sandy Lare of Tetra Tech, Inc. with any questions at 716-849-9419, or email sandy.lare@tetratech.com.

Sincerely,
Tetra Tech, Inc.

Sandra J. Lare
Environmental Planner/Permitting Specialist

Enclosures: Revised Chapter 105 Joint Permit Application

cc: Ann Roda, DEP Headquarters / Program Integration (letter only)
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