



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 Office
909 Elmerton Avenue
Harrisburg, PA 17110

Re: DEP File E38-194
Technical Deficiency Response
Chapter 105 Dam Safety and Waterway Management Joint Permit Application
Sunoco Pipeline L.P. – Pennsylvania Pipeline Project (Mariner East II)
Cornwall, Heidelberg, South Annville, South Lebanon, South Londonderry, and West
Cornwall Townships, Lebanon 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.

Comments and Responses to September 6, 2016 Technical Deficiency Letter

LE 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
LE 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 for the Project has been added to the application materials and is located in Attachment 11, 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 §§ 105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25 Pa. Code § 105.15.
LE 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 entire Project has been added to the application materials and is located in Attachment 11. 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.

<p>LE 1.b.i</p>	<p>Anti-degradation 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 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).</p>	<p>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.</p>
<p>LE 1.b.ii</p>	<p>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).</p>	<p>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, Section 4.0.</p>
<p>LE 1.b.iii</p>	<p>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</p>	<p>A stand-alone cumulative impacts assessment document has been added to the application materials and is located in Attachment 11, Enclosure E, Part 6.</p>

	entire project, as a whole referencing each of the applications for the entire project. 25 Pa. Code §§ 105.14(b)(14); and 105.15.	
LE 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, Part 1. This Comprehensive Evaluation of Compliance cross-references the application materials that address each requirement in 25 Pa. Code § 105.18a.
LE 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. 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. An Impact Avoidance, Minimization, and Mitigation Procedures document has also been added to address this comment, located in Attachment 11, Enclosure E, Part 4.
LE 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 Inadvertent Return (IR) risk assessment for each of the HDDs.
LE 2.a	Provide information/details on previous HDD activities on the prior Mariner East pipeline project	An HDD Risk Assessment is included as part of the revised Inadvertent Return Assessment, Prevention,

	<p>where IRs occurred. At a minimum this should include, a topographic map with locations and 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.</p>	<p>Preparedness and Contingency Plan (IR Plan) provided in Attachment 12C. The assessment discusses previous inadvertent returns (IRs) and provides the data and analysis requested (see Appendix C of IR Plan).</p>
<p>LE 2.b</p>	<p>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.</p>	<p>Potential impacts to public and private water supplies have been analyzed and addressed within three supplemental plans to the PPC Plan, the Water Supply Assessment, Preparedness Prevention and Contingency Plan and the IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. 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 competent 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.</p>
<p>LE 3</p>	<p>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)].</p>	<p>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.</p>

<p>LE 4</p>	<p>The application states that the second pipeline will be 16 inches in diameter, while other applications 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)]</p>	<p>In previous submissions and coordination documents, the diameter of the second pipeline had not yet been 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.</p>
<p>LE 5</p>	<p>List the types and amounts of emissions to satisfy question 13.0.1 of the General Information Form. [1300-PM-BIT0001 5/2012 Instructions]</p>	<p>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 Lebanon County.</p>
<p>LE 6</p>	<p>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)]</p>	<p>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 in Attachment 1 of the Application.</p>
<p>LE 7</p>	<p>Provide a PNDI search clearance letter from the Pennsylvania Game Commission for threatened and</p>	<p>The PGC provided clearance in a letter dated June 8, 2016. A copy of this letter is provided in Attachment 6.</p>

	endangered species under their jurisdiction. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]	
LE 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)]	<p>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.</p> <p>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.</p>

LE 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.
LE 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.
LE 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.
LE 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.
LE 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.
LE 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.
LE 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.
LE 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.
LE 13	The auger bore drawings reference cathodic protection being installed. Provide plans and/or details for any proposed cathodic protection and identify on the plans where and which type of	The Project Description provided in Attachment 9 includes a narrative outlining SPLP's cathodic protection plans. A typical cathodic test station detail has been added to the E&S Plan Sheets in Attachment 12.

	cathodic protection is proposed to be installed. [25 Pa. Code §§105.3(4), 105.11(a), 105.13(e)(1)(i)(C)]	
LE 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.
LE 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 all construction and staging areas are located. Identify any temporary crossings or impacts for these areas to streams, wetlands, and floodways and 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 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.
LE 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	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

	<p>measuring from the top of bank for the 50-foot 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]</p>	<p>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.</p>
<p>LE 17</p>	<p>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 full removal of the stockpiled soil and minimize impacts. [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)]</p>	<p>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.</p>
<p>LE 18</p>	<p>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 if Trench Plugs are what is meant. Revise this detail to identify if Trench Plugs are meant by this term or provide a detail for trench breakers. In addition, if trench plugs are proposed to maintain wetland 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</p>	<p>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.</p>

	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)]	
LE 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 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.
LE 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.
LE 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.
LE 22	Identify the proposed provisions for shut-off in the event of break or rupture for each crossing. Provide locations and description of how this action will be completed in the event a break or rupture occurs. [25 Pa. Code § 105.301(9)]	The revised Project Description provided in Attachment 9 discusses block valves, their location, and the siting criteria that provides shutoff provisions. Valves are shut off remotely or manually. Block valves are also depicted on the aerial site plans provided in Attachment 7, Tab 7A.
LE 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.
LE 24	Provide comment letters from Heidelberg, South Annville, South Lebanon, South Londonderry, and West Cornwall Townships. [25 Pa. Code §§105.13(e)(1)(v) and (vi)]	<p>This comment references two (2) parts of Section 105.13 (e) including parts (1)(v) and (1)(vi) and is followed by a similar comment referencing only part (1)(vi) in Comment LE 25. Therefore the response to request for comment letters in accordance with Section 105.13(e)(1)(vi) are also addressed in Comment LE 25.</p> <p>25 Pennsylvania Code, Chapter 105 Regulations (105.13(e)(1)(v) requires that a project application include an analysis of the project's impacts on the Stormwater Management Plan and a letter from the county or municipality commenting on the analysis if a watershed stormwater management plan has been prepared or adopted under the Storm Water Management Act (32 P.S. SS 680.1-680.17). In accordance with this requirement, SPLP sent requests for consistency determination to the County and municipalities crossed by the Project within Lebanon County on November 2015, and February 2016. Copies of the comment letters received from the County and the Township that responded (i.e. South Londonderry) was included in SPLP's last application submittal in May 2016. Per PADEP's request, this is again included in Attachment 14 of this application, along with additional comments received from the other Townships that have responded since May 2016. Specifically, responses were received from Lebanon County, and Cornwall and Heidelberg Townships. No responses have been received from South Annville, South Lebanon, and West Cornwall Townships and SPLP is</p>

		<p>currently still in coordination with South Londonderry Township for stormwater management consistency. As shown in Attachment 14, Lebanon County has determined that the Project would be consistent with South Lebanon Township's stormwater management plan. However, South Londonderry, South Annville, and West Cornwall Townships "do not have approved Act 167 Stormwater Management Plans". Therefore, SPLP is not required to provide as part of its Chapter 105 permit application, responses from these Townships regarding stormwater consistency.</p> <p>Copies of the correspondence with these municipalities regarding stormwater consistency is provided in Attachment 14, including ongoing correspondence with South Londonderry Township.</p> <p>25 Pa. Code § 105.13(e)(1)(vi) requires that a project application be accompanied by a floodplain management analysis and a letter from the county or municipality's comments on the analysis if the Project is located within a floodway delineated on a FEMA map. No portion of the Project crosses a FEMA designated floodway in Heidelberg or South Annville Townships. Therefore, the Project is not required to provide as part of its Chapter 105 permit application a response from Heidelberg or South Annville Townships regarding floodplain management consistency.</p> <p>SPLP submitted an analysis of the Project's consistency with South Lebanon Township's flood plain management program in two requests for consistency determination letters dated November 2015 and February 2016. However, a response from South Lebanon Township has not been received to date. Per DEP's request, an analysis</p>
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		<p>of the Project’s consistency with the Township’s program is provided below.</p> <p>No aboveground facilities or new access roads are proposed in FEMA-designated floodways or 100-year floodplains in the Township. The pipeline ROW would cross a FEMA-designated floodway associated with an Unnamed Tributary to Quittapahilla Creek, as well as several 100-year floodplains in South Lebanon Township. SPLP will utilize heavy wall pipe at this crossing that flood-proofs the pipe to minimize the potential for hazards to occur. The entire pipeline will be buried with a depth of cover of 4 feet or greater to the top of the pipe. Preconstruction contours and elevations will be restored following pipeline installation. Therefore, no increases to base flood elevations would occur, and flood flows will remain similar to existing conditions and therefore the exposure to flood hazards or chance of impairment during a flood are minimized.</p> <p>While no response has been received from South Lebanon Township, the Lebanon County Planning Department, enforcer of the Floodplain Management regulations for the municipality indicated in its March 16, 2016, letter that “the proposed activity for the [project] has been reviewed and is consistent with the FEMA Floodplain Management Programs effective in [South Lebanon Township]”.</p> <p>Copies of all municipal correspondence regarding stormwater and floodplain consistency are provided in Attachment 14.</p>
LE 25	Provide a letter from Heidelberg, South Annville, and South Lebanon Townships commenting on the	25 Pennsylvania Code, Chapter 105 Regulations (105.13(e)(1)(vi) requires that a project application be

	<p>analysis of the project's impact on the floodway delineation and water surface profiles. [25 Pa. Code §§105.13(e)(1)(vi)]</p>	<p>accompanied by a floodplain management analysis and a letter from the county or municipality's comments on the analysis if the Project is located within a floodway delineated on a FEMA map. No portion of the Project crosses a FEMA designated floodway in Heidelberg or South Annville Townships. Therefore, the Project is not required to provide as part of its Chapter 105 permit application a response from Heidelberg or South Annville Townships regarding floodplain management consistency.</p> <p>SPLP submitted an analysis of the Project's consistency with South Lebanon Township's flood plain management program in two requests for consistency determination letters dated November 2015 and February 2016. However, a response from South Lebanon Township has not been received to date. Per DEP's request, an analysis of the Project's consistency w/ the Township's program is provided below.</p> <p>No aboveground facilities or new access roads are proposed in FEMA-designated floodways or 100-year floodplains in the Township. The pipeline ROW would cross a FEMA-designated floodway associated with an Unnamed Tributary to Quittapahilla Creek, as well as several 100-year floodplains in South Lebanon Township. SPLP will utilize heavy wall pipe at this crossing that flood-proofs the pipe to minimize the potential for hazards to occur. The entire pipeline will be buried with a depth of cover of 4 feet or greater to the top of the pipe. Preconstruction contours and elevations will be restored following pipeline installation. Therefore, no increases to base flood elevations would occur, and flood flows will remain similar to existing conditions and therefore the exposure to flood hazards or chance of impairment during</p>
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		<p>a flood are minimized. While no response has been received from South Lebanon Township, the Lebanon County Planning Department, enforcer of the Floodplain Management regulations for the municipality indicated in its March 16, 2016, letter that “the proposed activity for the [project] has been reviewed and is consistent with the FEMA Floodplain Management Programs effective in [South Lebanon Township]”.</p> <p>Copies of all municipal correspondence regarding floodplain consistency are provided in Attachment 14.</p>
LE 26	<p>Amend Section C of the Application to identify the size of the proposed second pipeline. Other areas in the application indicate a 16-inch pipe is to be used, but Section C describes a pipe that is up to 20-inch diameter. [25 Pa. Code §§105.13(e)(1)(iii)(A)]</p>	<p>The Application has been updated to describe the second line as 16 inches in diameter.</p>
LE 27	<p>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 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]</p>	<p>The N/A label has been removed from Section F of the Application.</p>
LE 28	<p>Provide the letters of approval from PA American Water and Ephrata Area Joint Authority and update Question 16.0.2 of the GIF. [1300-PM-BIT0001 5/2012 Instructions]</p>	<p>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</p>

		<p>Prevention and Contingency Plan (Attachment 12, Tab 12B), which addresses all correspondence with water and sewer authorities, including letters to the PA American Water and Ephrata Area Joint 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.</p>
LE 29	<p>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 compliance. [25 Pa. Code §§105.21.(a)(1); §91.33(b)]</p>	<p>The PPC Plan in Attachment 12, Tab 12A has been revised to remove the reference and cite appropriate regulations where necessary.</p>
LE 30	<p>It appears that 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)]</p>	<p>Snitz Creek is the only water withdrawal planned to be used in Lebanon County. Water withdrawals from Snitz 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 102 drawings and included within the limit of disturbance.</p> <p>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. The permit application captures the details of the mainline and HDD testing discharges including discharge capacity,</p>

		<p>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.</p> <p>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.</p>
LE 30.a	Provide plans and cross sections indicating pipe size, placement, and locations for all wetlands, streams, floodways and floodplains where the proposed water withdrawal and discharge piping is to be installed.	<p>Water withdrawals in Lebanon County (i.e., Snitz Creek) will use temporary and above-ground equipment. The 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 102 drawings and included within the limit of disturbance.</p> <p>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.</p> <p>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</p>

		<p>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.</p>
<p>LE 30.b</p>	<p>Revise the impact tables to include these impacts.</p>	<p>All encroachments and obstructions for proposed water withdrawal and discharge piping are included within the Project limits of disturbance, and impacts are reflected in Tables 2, 3, and 4 provided in Attachment 11.</p>
<p>LE 30.c</p>	<p>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 which obstructions will remain in place.</p>	<p>Snitz Creek is the only water withdrawal planned to be used in Lebanon County. Water withdrawals from Snitz Creek will use temporary and above-ground equipment. This 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 102 drawings and included within the limit of disturbance.</p> <p>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.</p> <p>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.</p>

LE 30.d	Provide cross sections, profiles, and hydraulic analysis for all piping placed in existing stream culverts and along and within stream channels.	See response for LE 30.c
LE 30.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.	<p>The Environmental Assessment has been updated to capture the impacts of the water obstructions and withdrawals on Snitz Creek. The area of the impacts will be contained to the LOD. No impacts are associated with the temporary piping and intake screens for the water withdrawal.</p> <p>Water withdrawal activities for Snitz Creek are not required to be permitted through the SRBC because permit thresholds are not met.</p>
LE 30.f	Provide documentation of submission of proposed water obstructions and encroachments for these activities to each jurisdictional (PHMC, USFWS, PFBC, PGC, DCNR) agency and provide clearance from these agencies.	<p>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.</p> <p>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</p>

		<p>[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.</p> <p>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.</p>
LE 31	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."	This signed certification has been added to the Attachment 14 documents.

	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)]	
LE 32	The E&S sheet numbers shown in Tab 7A and identified in Table 3 of Tab 11 do not correspond to the sheets in the submitted Lebanon County E&S Plan. [25 Pa. Code §§105.21.(a)(1)]	The attached revised permit application document provides accurate cross-referencing of the Lebanon County E&S Plan sheet numbers with Table 3 of Attachment 11 and the aerial site plans of Attachment 7, Tab7A.
LE 33	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 §§105.301(4), 105.301(5), 105.13(e)(1)(i)(G)]	The site- specific 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 are provided within the E&S Plan Sheets that 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.
LE 34	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	According to Pennsylvania regulation, 25 Pa. Code §105.313, a pipeline must be buried at least 3 feet deeper than existing grade. SPLP is committed to 5 feet below existing stream beds, which includes the bottom of streams. Where the pipeline is within 25 feet of neighboring streams, or streams within the Permanent ROW, the depth of cover is designed to avoid and minimize the risk of exposure due to stream migration.

	stabilization or natural stream design structures should be considered first to avoid and minimize impacts. [25 Pa. Code §§105.314]	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.
LE 35	Table 3 indicates that Stream S-A1 has a bank to bank width of 10 feet; however, the stream data sheet indicates a bank width of 7 feet. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A)]	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.
LE 36	Information for Stream S-A4 could not be found on Table 3 of Tab 11. Provide the missing information. [25 Pa. Code §§105.13(e)(1)(i)(A)]	Stream S-A4 is not proposed to be impacted by the Project. It is to the south of the edge of the work space by more than 50 feet.
LE 37	Table 3 indicates that Stream S-A5a has a bank to bank width of 5 feet; however, the stream data sheet indicates that the bank width is 2 feet. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A)]	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.
LE 38	Stream data sheets for S-A18, S-B78A, and S-H8 could not be found. Provide the missing information. [25 Pa. Code §§105.13(e)(1)(i)(A)]	The missing data sheets are now provided within the supplemental information provided in Attachment 11, Enclosure A. A portion of Stream S-B78 (i.e., S-B78A) was renamed to S-B77 to best reflect the physical characteristics of the two streams; so the data form for S-B78 encompasses the formerly named S-B78a.
LE 39	Sheet 19 of Tab 7A indicates a bore crossing of Tice Lane; however sheet 244 of 321 provided to Cornwall Township does not identify the bore. Provide consistent and up-to-date plans to the Department and Cornwall Township. [25 Pa. Code §§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 Cornwall Township and that correspondence is provided in Attachment 14.

LE 40	Sheet 32 of Tab 7A depicts a permanent access road that is not shown on sheet 257 of 321 provided to Heidelberg Township. Provide consistent and up-to-date plans to the Department and Heidelberg Township. [25 Pa. Code §§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 Heidelberg Township and that correspondence is provided in Attachment 14.
LE 41	Sheet 263 of 321 provided to Heidelberg Township identifies an existing block valve that is not depicted on Sheet 38 of Tab 7A. Provide consistent and up-to-date plans to the Department and Heidelberg Township. [25 Pa. Code §§105.13(e)(1)(i)(B)]	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 Heidelberg Township and that correspondence is provided in Attachment 14.
LE 42	The HDD lengths are not the same on Sheet 38 of Tab 7A and Sheet 263 of 321 provided to Heidelberg Township. Provide consistent and up-to-date plans to the Department and Heidelberg Township. [25 Pa. Code §§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 Heidelberg Township and that correspondence is provided in Attachment 14.
LE 43	The bore lengths are different on sheet 6 of Tab 7A than those shown on Sheet 231 of 321 provided to South Annville Township. Provide consistent and up-to-date plans to the Department and South Annville Township. [25 Pa. Code §§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 South Annville Township and that correspondence is provided in Attachment 14.
LE 44	The bore lengths are different on Sheet 21 of Tab 7A than those shown on Sheet 246 of 321 provided to South Lebanon Township. Provide consistent and up-to-date plans to the Department and South Annville Township. [25 Pa. Code §§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 South Lebanon Township and that correspondence is provided in Attachment 14.
LE 45	The bore lengths are different on Sheet 24 of Tab 7A than those shown on Sheet 249 of 321 provided to South Lebanon Township. Provide consistent and up-to-date plans to the Department and South	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 South Lebanon Township and that correspondence is provided in Attachment 14.

	Annville Township. [25 Pa. Code §§105.13(e)(1)(i)(C)]	
LE 46	Sheet 24 of Tab 7A indicates an open cut in the area of the permanent access road, but sheet 249 of 321 provided to South Lebanon Township indicates a bore crossing. Provide consistent and up-to-date plans to the Department and South Lebanon Township. [25 Pa. Code §§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 South Lebanon Township and that correspondence is provided in Attachment 14.
LE 47	The HDD lengths are not the same on Sheet 1 of Tab 7A and Sheet 226 of 321 provided to South Londonderry Township. Provide consistent and up-to-date plans to the Department and South Londonderry Township. [25 Pa. Code §§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 South Londonderry Township and that correspondence is provided in Attachment 14.
LE 48	Sheet 2 of Tab 7A indicates a bore crossing in the western portion of the map, but Sheet 227 of 321 provided to South Londonderry Township indicates an open cut crossing. Provide consistent and up-to-date plans to the Department and South Londonderry Township. [25 Pa. Code §§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 South Londonderry Township and that correspondence is provided in Attachment 14.
LE 49	The HDD lengths are not the same on Sheet 3 of Tab 7A and Sheet 228 of 321 provided to South Londonderry Township. Provide consistent and up-to-date plans to the Department and South Londonderry Township. [25 Pa. Code §§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 South Londonderry Township and that correspondence is provided in Attachment 14.
LE 50	Sheet 239 of 321 provided to West Cornwall Township identifies a proposed block valve that is not shown on Sheet 14 of Tab 7A. Provide consistent and up-to-date plans to the Department and West Cornwall Township. [25 Pa. Code §§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 West Cornwall Township and that correspondence is provided in Attachment 14.

LE 51	The bore lengths are different on Sheet 15 of Tab 7A than those shown on Sheet 240 of 321 provided to West Cornwall Township. Provide consistent and up-to-date plans to the Department and West Cornwall Township. [25 Pa. Code §§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 West Cornwall Township and that correspondence is provided in Attachment 14.
LE 52	The HDD lengths are not the same on Sheet 18 of Tab 7A and Sheet 243 of 321 provided to West Cornwall Township. Provide consistent and up-to-date plans to the Department and West Cornwall Township. [25 Pa. Code § 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 West Cornwall Township and that correspondence is provided in Attachment 14
LE 53	It appears that the permanent floodway impacts were not calculated correctly for Stream S-A17, which may be partially due to this HDD having a permanent ROW. Revise and clarify the impact table to accurately reflect the proposed impacts. [25 Pa. Code §§105.15(a), 105.21(a)(1)]	The proposed permanent floodway impact of 0.208 acres and temporary floodway impact of 0.053 acres correctly represents the proposed impacts to stream S-A17. However, the stream impact of 153 square feet was incorrect, and it has been updated within the revised Table 3 located in Attachment 11.
LE 54	There do not appear to be permanent floodway impacts to Stream S-A18 as listed on Sheet 18 of Tab 7A. Remove the value from the description block. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	The impacts calculated for stream S-A18 are representative of the impacts to the shared floodway with stream S-A17, and the value in the description block is therefore correct.
LE 55	The site specific drawing references “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 the E&S Plan sheet set in 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. The site-specific plans are specific to the crossing. The stream restoration is also referenced in the details added to the E&S notes and details.
LE 56	The E&S plan sheets indicate that wetland J47 is within both Dauphin and Lebanon Counties.	Impacts to Wetland J47 were previously presented in the Dauphin County application. However, the impacts for

	Clarify if all of the proposed impacts to this wetland are accounted for in the Dauphin County Application. Revise the impact plan drawing to depict the county boundary and accurately identify the impacts to the wetland in Lebanon County on the impact table. In addition, it is recommended that the Dauphin County application be evaluated and revised for consistency as necessary. [25 Pa. Code §§105.13(e)(1)(i)(B), 105.15(a), 105.21(a)(1)]	each county are now presented in each respective application. The county boundary shapefile that comes with all ArcGIS licenses is spatially different than the boundaries recognized by the Commonwealth of Pennsylvania. The county boundaries now represent the data available from the Pennsylvania Spatial Data Access (PASDA) website, and matches the county boundaries within the E&S Plan, Chapter 102 application, and Aquatic Resource Reports.
LE 57	The impact plans and impact table indicate temporary impacts from a temporary bridge are proposed to stream S-A49. However, the E&S plans do not depict any proposed temporary impacts. Revise the plans to depict any proposed temporary impacts to stream S-A49 and clarify what permanent impacts are proposed beyond the HDD installed pipelines. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.21(a)(1)]	The E&S Plan Sheet ES-5.02 has been updated to include temporary matting across S-A49 within the ROW. No permanent impacts are proposed beyond the HDD installed pipelines.
LE 58	The plans indicate that Streams S-B77, S-A2, S-A3, S-A5, S-A10, and S-H7 flow in and along and under the ROW and proposed pipelines and not across and immediately through them. The E&S plans do not provide sufficient detail on the stream limits, banks, and 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)]	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 the E&S Plan sheet set provided in 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.
LE 59	Site plan sheet 8 contains a note to see the Site Specific Plan in tab 7D. However, there is no site	Site-specific plans are now included as part of the E&S Plan sheet set provided in Attachment 12. A site-specific

	specific plan for any resources on this plan sheet. Provide the referenced plan drawing. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	plan is called out as being available on the E&S Plan sheets and included at the site-specifics are included at the end of the sheet set.
LE 60	The HDD plan drawing PA-LE-0055.0000-RD depicts the temporary workspace as being located partially within wetland A12. However, no other plan drawings depict this. Revise this HDD plan drawing to be accurate for the proposed impacts and consistent with the other plan drawings. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	HDD drawing PA-LE-0055.0000-RD in Attachment 7, Tab 7D, has been revised with a revised workspace to remove this impact. There is no temporary workspace impact to Wetland A12.
LE 61	The HDD plan drawing PA-LE-0055.0000-RD indicates that the HDD Entry/Exit point will be located within wetland A13. However, the site impact plan drawings and the E&S plan drawing depict that this entry exit point will not be located within this wetland. Revise and clarify the plan drawings and impact tables to be consistent and accurately reflect the proposed impacts. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1), 105.15(a)]	HDD drawing PA-LE-0055.0000-RD in Attachment 7, Tab 7D, has been revised with the correct workspace and entry/exit locations. The HDD entry/exit occurs to the west, and subsequently outside of Wetland A13.
LE 62	The stream banks of S-A25 are not depicted on the E&S plan drawing ES-1.50. Based on the width of the stream, it appears that this stream may be partially located within the permanent ROW on the southern portion of the proposed ROW. Revise the plan drawing to depict the proposed stream banks and any proposed impacts to the stream from the meander of the stream re-entering the proposed ROW. [25 Pa. Code §§105.13(e)(1)(i), 105.301(1)]	A site-specific drawing is provided for this area with the E&S Plan sheet set located in Attachment 12. The site specific provides more detail in regards to the banks and shows the permanent workspace located outside of the bank in this area and nearest pipeline to be approximately 25 feet from the meander.
LE 63	The water body identified as Pond-A1 is identified as a pond; however, multiple aerial photographs depict variable open water and vegetation cover on varying years. Therefore, it appears this is a wetland and not a pond. No information,	SPLP field reviewed this area in Fall 2016. Upon re-examination of this area previously classified as Pond-A1, SPLP has reclassified this resource as PEM wetland C-J2. Documentation of this field review is provided in the

	<p>photographs, or description of this pond is located in the Aquatic Resource Report. Revise the application to provide more detail on pond, color photographs with a map depicting the location and direction, and include it in the Aquatic Resource Report narrative. [25 Pa. Code §§105.13(e)(1)(iv), 105.13(e)(1)(x)(A), 105.451]</p>	<p>November 2016 Aquatic Resources Report Addendum (Attachment 11, Enclosure A).</p>
LE 64	<p>The Site Plan drawing and impact table state that the stream crossing S-A27 will be a dry crossing; however, the site plan drawing, sheet 30, and E&S plan drawing, ES-1.53, depict that the stream will have temporary timber mat bridge crossing, but the pipelines will be bored underneath the stream. Revise the application to be consistent and accurate to what is proposed, and include a site specific/auger bore drawing for this crossing. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1), 105.301(1), 105.301(3)]</p>	<p>Stream S-A27 will be bored underneath. In order to get to the roadway, a temporary bridge will be installed over S-A27. Attachment 7, Tab 7C, Drawing PA-LE-0090.0000-RD further depicts this crossing.</p>
LE 65	<p>The “ATWS” area in the floodplain and floodway of Stream S-A24 on Sheet 26 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. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to streams. [25 Pa. Code §§105.13(g)]</p>	<p>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-A24. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil.</p>
LE 66	<p>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</p>	<p>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.</p>

	proposed temporary rights of way. [25 Pa. Code §§105.13(e)(1)(i)(A)]	
LE 67	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 crossing being used. [25 Pa. Code §§105.13(e)(1)(i)(C)]	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 offered to select the best option to best 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 are thoroughly described within the E&S Plan provided in Attachment 12. Approval of the E&S Plan is being sought through the Chapter 102 regulations.
LE 68	The plans indicated on E&S plan ES-1.32 that stream S-A17, which is 25-feet wide, will be temporarily crossed with timber mats. Explain how timber mats will be utilized to construct a temporary bridge of this length. [25 Pa. Code §§105.13(e)(1)(iii)(A)]	A site-specific crossing plan for this area is now provided as part of the E&S Plan sheet set provides in Attachment 12. Although timber mats may be depicted, it is noted that the contractor has the choice to implement the temporary equipment bridge options available for use within the E&S plan notes and details. The stream width has been updated to 23 feet based on the site-specific data.
LE 69	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-B76, S-B77, S-A5, and S-C35. 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	The application has been supplemented with an aquatic resource addendum provided in Attachment 11. 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.

	photographs of start/end locations. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(iv)]	
LE 70	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 on the E&S Plan Drawings in Attachment 12 have been revised to indicate that stream banks will be reseeded in accordance with the approved seed mixes.
LE 71	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.
LE 72	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 Control BMP Manual. [25 Pa. Code §§105.13(e), 105.18a]	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 have been revised to be consistent with the detail.

LE 73	Temporary road stream crossing details utilizing culverts are provided on E&S plans ES-0.10 and ES-0.12; 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 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.
LE 74	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. 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.
LE 75	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 §§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)]	Native stream bed material will be separated from other spoil for reinstallation after restoration (see the E&S Plan provided in Attachment 12). An evaluation was done for shear stress of flow against restored native material. If the evaluation indicated that the stream will not be stable with native material, then rip rap will be used. In these cases, native stone will be used for the top six inches of rip rap. Also, the BMPs for stream bed restoration 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.

LE 76	<p>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-B76, S-B77, S-A5, S-A5a, S-A12, S-A11, and S-C35. [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)]</p>	<p>As described within the enclosures of the Comprehensive Environmental Evaluation provided in Attachment 11, impacts to water resources, including S-B76, S-B77, S-A5, S-A5a, S-A12, S-A11, and S-C35, have been minimized to the maximum extent practicable. 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.</p>
LE 77	<p>The following wetland is identified in the application as Exceptional Value (EV) due to Wild Trout: A12. However, the Department was unable to determine wild trout status for the adjacent streams or tributaries thereto. Clarify and revise the application accordingly. [25 Pa. Code §§105.13(e)(1)(x)(B), 105.17(1)(iii), 105.21(a)(1)]</p>	<p>Wetland A12 was incorrectly classified as Exceptional Value based on proximity to a stream with a naturally reproducing trout population. The revised permit application does not consider Wetland A12 as Exceptional Value.</p>
LE 78	<p>Revise impact Table 3 and the impact plans to correctly identify whether streams are wild trout or not. As presently proposed, streams S-A18 and S-</p>	<p>Based on recently released data from PFBC, all streams have been classified as Class A, TNR, or (drains to) TNR appropriately. Streams S-A17 and S-A18 are no longer wild trout streams. Table 3 has been updated accordingly.</p>

	A17 are not wild trout streams. [25 Pa. Code §§105.21(a)(1), 105.15(a)]	
LE 79	The Mitigation Plan states that for HDD crossings, a telemetry guidance system will be used.	NA – Heading
LE 79.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.
LE 79.b	If cables, wires, or other obstructions will be utilized across waters of the commonwealth revise the application to identify these temporary impacts, and 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 Lebanon 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.
LE 79.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	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 Lebanon County.

	Burrell with the Pennsylvania Fish and Boat Commission at 717.705.7838 regarding ATON requirements. [25 Pa. Code §§105.14(b)(6), 105.21(a)(2), 105.14(b)(2)]	
LE 80	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 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.
LE 81	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)]	The Project impact table is now located in Attachment 11, Enclosure E, Part 2 and has been revised to match impact acreages identified elsewhere in the Application.
LE 82	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	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.

	larger watercourses. [25 Pa. Code § 105.13(e)(1)(iii)]	
LE 83	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.
LE 83.a	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 at Attachment 11, Enclosure C.
LE 83.b	Multiple wetland Functions and Values Assessments identify that wetlands have a function/value for Endangered Species Habitat for providing critical habitat for a threatened or endangered species. However, this function/value is not identified elsewhere in the application, and the wetlands are not identified as EV in the application. Revise the application to include in the analysis an evaluation of whether these wetlands are Exceptional Value. [25 Pa. Code §§105.13(e)(3), 105.15(a)]	Attachment 12, Enclosure E, Part 2 provides the criteria and methods for EV wetland identification.

LE 84	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.
LE 85	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 are provided in Attachment 12.
LE 85.a	Upon identification of public drinking water supplies, revise questions 14.0, 15.0, and 16.0 of the General Information Form accordingly. [General Information Form Instructions]	The responses to questions 14, 15, and 16 of the General Information Form in Attachment 1 have been revised to address this comment.

LE 85.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.
LE 85.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.
LE 86	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]	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 IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These supplemental plans are provided in Attachment 12.
LE 86.a	If private water supplies are identified, revise Enclosures C and D of the Environmental Assessment to identify them and discuss the impacts on them from the proposed water obstructions and encroachments.	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 supplemental plans are provided in Attachment 12.
LE 86.b	Provide procedures that will be followed to investigate and resolve impacts to private water	Attachment 12, Tab 12B includes a Water Supply Assessment, Prevention, Preparedness, and Contingency

	<p>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.</p>	<p>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.</p>
LE 87	<p>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 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</p>	<p>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.</p>

	§105.13; §105.14(b)(4); §105.14(b)(5); §105.18a(5); §105.18a(b)(5); §91.33(b)].	
LE 88	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.
LE 89	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), 105.15(b), 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.
LE 90	Revise section B.1.b.5. of Enclosure D of the Environmental Assessment to discuss the impacts of the water obstructions and encroachments on migration both within and outside the boundaries of Middle Creek Wildlife Management Area. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.14(b)(5), 105.18a(a)(1), 105.18a(b)(1)]	Enclosure D has been revised to specifically mention the Middle Creek Wildlife Management Area and Project impacts/impact avoidance measures on bird migration, both within and outside the boundaries of Middle Creek Wildlife Management Area.
LE 91	Update and revise section A.3 of Enclosure D of the Environmental Assessment to discuss any avoidance and minimization measures relative to 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]	Attachment 11, Enclosure D and Attachment 11, Enclosure E, Part 2 have been updated with avoidance and minimization measures relative to PHMC consultations to-date.
LE 92	Revise Enclosure D of the Environmental Assessment to discuss the impacts on the Game Lands crossed in Lebanon County by the water	Enclosure D has been updated to discuss the Project's impacts on State Game Lands in Lebanon County. With respect to the request to provide supporting

	<p>obstructions and encroachments, and provide documentation of coordination and approval from the Pennsylvania Game Commission. As necessary, provide any supporting documentation and/or coordination materials for the approval from the Game Commission. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]</p>	<p>documentation/coordination materials, SPLP notes it has been coordinating with the Pennsylvania Game Commission (PGC) and for more than a year, and has submitted various and voluminous documentation and has held regular meetings with PGC pursuant to license agreements across State Game Lands. This documentation includes Applications for Right-of-Way License documents and supporting information. Easements for these properties are anticipated to be ready in December 2016/January 2017. Due to the voluminous nature of documentation SPLP has generated and submitted to PGC, SPLP has not provided copies in the context of this Chapter 105 application because it is not specifically required. If DEP requests or requires supporting documentation, SPLP invites DEP to provide more direction on specifically what documentation it requests</p>
<p>LE 93</p>	<p>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)]</p>	<p>Section 11 of the EAF, Enclosure D has been revised to address this comment.</p>
<p>LE 94</p>	<p>Revise section B.4 d. of Enclosure D of the Environmental Assessment to discuss specific hiking trails which will be temporarily closed and identify their locations within the project boundary. If hiking trails within the project boundary are associated with proposed water obstructions or encroachments, provide a discussion on the impact to the trail, the length of time it is proposed to be closed, plans for signage and detours, and correspondence from any agencies or trail</p>	<p>Enclosures C and D have been revised to address specific hiking trails crossed by the Project. There are no water resource crossings associated with trail crossings in this County.</p>

	<p>organizations regarding coordination of the closure. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]</p>	
LE 95	<p>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]</p>	<p>Impacts of the Project, which includes an evaluation of water resource impacts, on these designations are provided in Attachment 11, Enclosure D.</p>
LE 96	<p>Enclosure C of the Environmental Assessment mentions that the project crosses the Middle Creek Important Bird Area (IBA), but Enclosure D does not discuss the impacts that water obstructions or encroachments may have on this area. Revise Enclosure D of the environmental assessment to discuss the impacts the proposed water obstructions and encroachments will have on this area. 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), 105.15(a)]</p>	<p>Enclosure D of Attachment 11 has been revised to address impacts that the Project will have on the Middle Creek Important Bird Area. In addition, to address the June 24 recommendations a Migratory Bird Conservation Plan was submitted to the USFWS in correspondence dated November 23, 2016. That correspondence and plan are included in Attachment 6, Tab 6B. The majority of the conservation measure recommendations outlined within in the plan have already been implemented in regards to paralleling existing rights-of-way and reducing workspaces.</p>
LE 97	<p>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)]</p>	<p>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</p>

		minimization commitments are detailed in the Project Description as well as within the PNDI documents presented in Attachment 6.
LE 98	Revise Enclosure C of the Environmental Assessment to identify all Core Habitat and Supporting Landscape areas crossed by the proposed pipelines; including the Middle Creek Core Habitat, The Middle Creek Supporting Landscape, and the Chickies Creek, Penryn Park, and Walnut Run Supporting Landscape. In addition, revise Enclosure D to discuss potential impacts to these areas from the proposed water obstructions and encroachments. [25 Pa. Code §§105.15(a), 105.14(b)(4), Environmental Assessment Instructions]	Enclosure C has been revised to identify these areas, and Section B.1.d of Enclosure D has been revised to discuss potential impacts to any Landscape Conservation areas, Core Habitats, and Biological Diversity Areas.
LE 99	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. In many cases, all functions and values may be Primary; however, secondary functions and values are also identified for each wetland.
LE 100	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 Lebanon County, two wetlands will have a total of 0.016 acre of unavoidable permanent PFO to PEM conversion. 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.
LE 101	Based on the information in the application, it is apparent that wetland functions and values are present in multiple wetlands which have not been	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

	<p>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)]</p>	<p>identified. An updated function and values assessment is included in Attachment 11, Enclosure C.</p>
LE 102	<p>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)]</p>	<p>Site Specific Plans located in Attachment 7, Tab 7D have been revised to address complex aquatic resource crossings. As recommended by the DEP at a September 12, 2016 technical deficiency meeting, several cross sectional typical details are provided within the E&S Plan Sheets to accommodate the variety of typical stream and wetland crossings.</p>
LE 103	<p>Wetlands are located in mapped soils with shallow bedrock and restrictive soil layers, 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.</p>	<p>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</p>

		<p>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.</p> <p>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.</p> <p>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</p>
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		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.
LE 103.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 and will be utilized by the Project Professional Geologist to assist with providing consultations on trenching, backfilling, and restoring wetland that may potentially have restrictive layer.
LE 103.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 demonstrates 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 103.

LE 103.c	<p>Wetlands C17 and Pond-A1 contain/may contain open water/seasonal inundation, based on the information provided in the application. Provide 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)]</p>	<p>Pond-A1 (now named wetland CJ2) is being crossed under by a bore. Four feet of minimum cover is maintained throughout the crossing and 6 to 7 feet of cover is often maintained. For safe crossing, a travel lane with a temporary bridge is needed. This area is depression in a farm field that naturally collects water during snow melts and rain events. This crossing is shown in greater detail in Attachment 7, Tab 7C. The current and proposed conditions for Wetland C17 are depicted in a site-specific drawing for this area provide in Attachment 12 within the E&S Plan sheet set. The site-specific plan located within the E&S Plan sheet will aid in the restoration of contours and hydrology. 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 Procedures also discuss evaluation and inspection of wetland crossing by a professional hydrogeologist that will be consulted on the identification and BMPs to ensure any encountered confining layers are properly restored.</p>
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LE 104	<p>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)]</p>	<p>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.</p>
LE 105	<p>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 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]</p>	<p>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 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.</p>

<p>LE 106</p>	<p>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)]</p>	<p>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.</p>
<p>LE 106.a</p>	<p>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. 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]</p>	<p>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, Part 2.</p>
<p>LE 106.b</p>	<p>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)]</p>	<p>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.</p>
<p>LE 106.c</p>	<p>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</p>	<p>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</p>

	<p>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)]</p>	<p>Attachment 7, Tab 7A. The Project Description located in Attachment 9 has been revised to define the nomenclature of the terms discussed below, and the aerial site plans located in Attachment 7, Tab 7A have been revised to more clearly depict 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.</p> <p>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.</p> <p>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</p>
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		<p>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 maintenance or operations will occur.</p> <p>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.</p>
LE 107	<p>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</p>	<p>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.</p>

	<p>(HDD) and Bore crossings of resources are 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.</p>	<p>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.</p> <p>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 maintenance or operations will occur.</p> <p>The “Permanent Easement” depicted on the aerial site plans identifies the limits of SPLP’s agreement with the</p>
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		<p>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.</p>
<p>LE 107.a</p>	<p>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)]</p>	<p>See response to LE 107.</p>
<p>LE 107.b</p>	<p>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)]</p>	<p>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. Maintenance activities are discussed within the Impact Avoidance, Minimization,</p>

		and Mitigation Procedures located in Attachment 11, Enclosure E, Part 4.
LE 107.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 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)]	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 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).
LE 108	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.
LE 108.a	Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to	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

	<p>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)]</p>	<p>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.</p> <p>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.</p> <p>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,</p>
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		<p>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 maintenance or operations will occur.</p> <p>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.</p>
LE 108.b	<p>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)]</p>	<p>See the response to 108.a. Maintenance activities are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures located in Attachment 11, Enclosure E, Part 4.</p>
LE 108.c	<p>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</p>	<p>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</p>

	<p>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 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)]</p>	<p>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).</p>
LE 109	<p>The Mitigation Plan and Environmental Assessment state that conversion of Palustrine Forested Wetlands (PFO) is proposed to occur, and that there will be a functional loss, but the loss is de minimus.</p>	<p>Comment is addressed below.</p>
LE 109.a	<p>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)]</p>	<p>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.</p>
LE 109.b	<p>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</p>	<p>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 Lebanon County is 0.054 acre across two wetlands. However, SPLP evaluated the opportunity to restore these PFO areas</p>

	<p>§§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]</p>	<p>with trees to restore the functions and values of PFO. As a result, SPLP proposes to replant 0.039 acre of PFO in the permanent ROW with trees. The remaining 0.016 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 wetlands in Lebanon County that is limited to 0.016 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.</p>
<p>LE 109.c</p>	<p>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),</p>	<p>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.</p>

	105.14(b)(13), 105.14(b)(14), 105.15(a), 105.18a(a), 105.18a(b), 105.20a(a)(2)]	
LE 110	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.
LE 111	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.
LE 112	Section 2.2.2.1 of the Mitigation Plan identifies that wetlands will be reseeded with a native wetland seed mixture; however, the mixture is not specified nor is it proposed on the plans. Revise the	The Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 includes the details for standard and site-specific (including restored PSS and PFO habitats) wetland

	<p>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)]</p>	<p>restoration, as well as invasive species control, monitoring, and reporting.</p>
LE 113	<p>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 PFBC Law Enforcement is not identified as being notified as required in the PFBC 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)]</p>	<p>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 PFBC, PGC, DCNR, and USFWS have been sent the revised IR Plan and copies of this correspondence is provided in Attachment 6, Tab 6B.</p>
LE 114	<p>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</p>	<p>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.</p>

	<p>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)]</p> <p>In addition, address the following specific comments regarding the Alternatives Analysis:</p>	
<p>LE 114.a</p>	<p>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)]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
<p>LE 114.b</p>	<p>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 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</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

	proposed ROW cannot further overlap. [25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii), 105.18a(a), 105.18a(b)]	
LE 114.c	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), 105.13(e)(1)(viii)]	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.
LE 114.d	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.
LE 114.e	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	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

	avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	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.
LE 114.f	The Alternatives Analysis in Route Variation 10 states that the image document avoidance of wetland impacts in Lebanon County. However, this re-route is located completely within Lancaster County. Revise the application accordingly to be accurate. [25 Pa. Code §§105.13(e)(1)(i)(viii), 105.21(a)(1)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
LE 114.g	It appears that impacts to wetland B66 and streams S-B76, S-B77, S-B78, and S-B78a could be avoided and minimized by re-locating the alignment 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.
LE 114.h	It appears that impacts to wetlands A2 and A1, and streams S-A1, S-A2, and S-A3 could be avoided and minimized by re-locating the alignment to the North and only cross streams S-A1 and S-A3 and 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	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
LE 114.i	It appears that impacts to wetlands A3, A4, and A6, and streams S-A5, S-A5a, and S-A6 could be avoided and minimized by re-locating the alignment to the North and only cross streams S-A5 and S-A6 and 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), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
LE 114.j	It appears that impacts to wetland A9 and streams S-A10, S-A11, and S-A12 could be avoided and minimized by re-locating the alignment to the North and only cross streams S-A10 and S-A12 and in a more perpendicular manner. Also, it appears installing the pipelines in the Northern portion of the proposed ROW could 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. [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.
LE 114.k	It appears that impacts to wetland A11 and stream S-A16 could be avoided and minimized by	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	<p>extending the auger bore proposed underneath the roadway to also extend under this wetland and stream. 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]</p>	
LE 114.l	<p>It appears the HDD construction installation of the pipeline's could be extended to also install the pipeline's via HDD across wetlands A12 and A13 to 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. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
LE 114.m	<p>It appears the temporary access impacts across stream S-A17 could be avoided by accessing from the other side off of Quentin 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)]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
LE 114.n	<p>The Alternatives Analysis states that re-routes north or south of wetland A19 are not feasible because it</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

	<p>will result in disturbance of previously undisturbed areas and additional pipeline. However, the additional length of pipeline appears minimal and the area is in production agriculture. Therefore, it appears that impacts to wetland A19 could be avoided by locating the proposed pipelines to the North 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]</p>	
LE 114.o	<p>The Alternatives Analysis states that re-routes north of Pond-A1 are not feasible because it will result in disturbance of previously undisturbed areas and additional pipeline. However, the additional length of pipeline appears minimal and the area is in production agriculture. Therefore, it appears that impacts to Pond-A1 and stream S-A25 could be avoided and minimized by locating the pipelines to the North. In addition it appears utilizing trenchless technology such as HDD or Auger Bore could 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. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

LE 114.p	<p>The Alternatives Analysis states that routes to the North or South of wetland W5c are not feasible due to the proximity of residences and other undisturbed areas. However, other portions of the proposed pipeline are near residences and the area appears to be predominately agricultural fields. No information, documentation, or evidence has been provided to support this claim; therefore, it appears that impacts to wetland W5c could be avoided by locating the pipelines to the North of the wetland or South of the wetland and existing Sunoco pipeline. 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]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
LE 114.q	<p>The Alternatives Analysis states that re-routes north of wetland H4 are not feasible because it will result in disturbance of previously undisturbed areas and additional pipeline. However, the additional length of pipeline appears minimal and the area is in production agriculture. Therefore, it appears that impacts to wetland H4 could be avoided by locating the proposed pipelines to the North 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</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

	Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
LE 114.r	It appears that impacts to wetland C17 and stream S-C37 could be avoided by utilizing trenchless technology such as HDD or Auger Bore. 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.
LE 114.s	It appears that impacts to wetland C16 and stream S-C35 could be avoided by utilizing trenchless technology such as HDD or Auger Bore. In addition, it appears impacts to this stream and wetland could be avoided by locating the proposed pipelines to the South and South of the existing Sunoco pipeline. 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.
LE 115	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	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

	<p>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. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]</p>	<p>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 sensitive nature of the some of the information is not 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.</p>
LE 116	<p>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)]</p>	<p>The attached Application represents the proposed facilities and workspaces.</p> <p>SPLP provided in each Chapter 105 county application package a summary of the PNDI correspondences to-date as Attachment 6. In that summary, a description of the 1,500 foot-wide review area that was used for the initial correspondences and how reroutes deviating from the 1,500 foot width were resubmitted, such as the case of the Altoona reroute area in Cambria and Blair counties. Changes to the Project since receipt of these correspondences remain within the 1,500 reviewed corridor. Each agency has been submitted a final request for determination letter where the Project is describe as two lines, the consultation history is summarized, and survey reports and mapping (including GIS files) are provided referencing the most current alignment. Conservation measures and construction commitments are then outlined within a species-specific conservation plans and a no impact determination is requested. Clearance from all four agencies have been obtained and the</p>

		conditions of those clearances outlined within the revised Project Description located in Attachment 9, which includes all approved conservation plans. Attachment 6 also contains all of the PNDI agency correspondences to-date.
LE 117	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-year restrictions on the plans. [25 Pa. Code §§105.14(b)(4), 105.14(b)(6)]	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. Trout stream restrictions are also noted on aerial site plans and E&S Plans, however due to the sensitive nature of the some of the information is not 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@tetrattech.com.

Sincerely,
Tetra Tech, Inc.

A handwritten signature in black ink that reads "Sandra J. Lare". The signature is written in a cursive, flowing style.

Sandra J. Lare
Environmental Planner/Permitting Specialist

Enclosures: Revised Chapter 105 Joint Permit Application

cc: Ann Roda, DEP Headquarters / Program Integration (letter only)
Sachin Shankar, DEP Southeast Region (letter only)
Dominic Rocco, DEP Southeast Region (letter only)
Jared Pritts, U.S. Army Corps of Engineers, Pittsburgh District (letter only)
Wade Chandler, U.S. Army Corps of Engineers, Baltimore District (letter only)
Sam Reynolds, U.S. Army Corps of Engineers, Philly District (letter only)
Monica Styles, Sunoco Logistics
Matthew Gordon, Sunoco Logistics
Christopher Embry, Sunoco Logistics
Brad Schaeffer, Tetra Tech, Inc.