



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 E06-701
Technical Deficiency Response
Chapter 105 Dam Safety and Waterway Management Joint Permit Application
Sunoco Pipeline L.P. – Pennsylvania Pipeline Project (Mariner East II)
New Morgan Borough, Brecknock, Caernarvon, Cumru, Robeson, South Heidelberg, and
Spring Townships, Berks 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. You will find the attachment to be 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

BE 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
BE 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, Enclosure E. 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.
BE 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, Enclosure E. 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.
BE 1.b.i	Antidegradation 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	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.

	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).	
BE 1.b.ii	Secondary Impact Analysis — Prepare and submit an analysis and information that addresses secondary impacts associated with but not the direct result of the construction or substantial modification of the water obstruction or encroachment in the areas of the entire project and in areas adjacent thereto and future impacts associated with water obstructions or encroachments, the construction of which would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose. 25 Pa. Code § 105.14(b)(12).	A Secondary Impact Analysis consistent with 25 Pa. Code § 105.14(b)(12) has been prepared and is provided in Attachment 11, Enclosure E, Part 2.
BE 1.b.iii	Project Wide Cumulative Impacts Analysis. Prepare and submit an analysis and information that addresses the cumulative impact for this entire project and other potential or existing projects. As part of this analysis please evaluate whether numerous piecemeal changes associated with all the chapter 105 applications related to this pipeline project may result in a major impairment of the wetland resources. The analysis must be undertaken for each alternative prepared for the proposed pipelines and facilities of Mariner East II, on a statewide basis and must be completed for the entire project, as a whole referencing each of the applications for the entire project. 25 Pa. Code §§ 105.14(b)(14); and 105.15.	A stand-alone Cumulative Impacts Analysis has been added to the application materials and is located in Attachment 11, Enclosure E, Part 6.
BE 1.b.iv	Comprehensive Evaluation of Compliance with 25 Pa. Code § 105.18a. Prepare and submit an analysis and	A Comprehensive Evaluation of Compliance for the Project has been added to the application materials 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.	is located in Attachment 11, Enclosure E. This Comprehensive Evaluation of Compliance cross-references the application materials that address each requirement in 25 Pa. Code § 105.18a.
BE 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. In addition, a Cumulative Impacts Analysis and Impact Avoidance, Minimization, and Mitigation Procedures have been added to the application materials to address this comment and are located in Attachment 11, Enclosure E, Part 6 and 4, respectively.
BE 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 IR Plan provided in Attachment 12, Tab 12C includes an IR risk assessment for each of the HDDs.
BE 2.a	Provide information/details on previous HDD activities on the prior Mariner East pipeline project where IRs occurred. At a minimum this should include, a topographic map with locations and 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.	An HDD Risk Assessment is included as part of the revised Inadvertent Return Assessment, Prevention, Preparedness and Contingency Plan (IR Plan) provided in Attachment 12, Tab 12C. The assessment discusses previous inadvertent returns (IR) and provides the data and analysis requested.

BE 2.b	A stand-alone attachment should be created to address the pre-boring geologic evaluation of the existence and potential to impact local drinking water supplies or aquifers around the boring location. The plan needs to include what measures will be employed to verify that no supplies or aquifer are impacted (i.e. pre and post water quality and quantity analysis). The plan should specify what notifications and remediation measures will be employed if there are impacts.	Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan: the Water Supply Assessment, Preparedness Prevention and Contingency Plan, the IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These supplemental plans are provided in Attachment 12. The Water Supply Plan provides for the assessment of the existing public and private water supplies in or along the Project, as well as identifies prevention and preparedness measures to be implemented to protect those supplies. The IR Plan outlines the preconstruction activities implemented to ensure sound geological features are included in the drill profile, the measures to prevent impact, and the preparedness plan if an impact were to occur. These plans are provided in Attachment 12.
BE 3	EV wetlands are defined as EV waters by Chapter 93. Therefore, explain the measures the applicant will implement to comply with the antidegradation requirements of the Department's water quality standards program.[25 Pa Code §93.4c(b); §93.4c(b)(2); §93.1 (defn. of surface water of exceptional ecological significance); §105.14(b)(11); §105.18a(a)(4); 24 Pa.B. 922 (February 12, 1994)(Incorporation of the Department's Existing Wetlands Protection Program into Water Quality Standards Program)].	An Antidegradation Analysis, provided in Attachment 11, Enclosure E, Part 5, fully explains the measures that SPLP will implement to comply with the antidegradation requirements of DEP's water quality standards program.
BE 4	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)]	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.
BE 5	List the types and amounts of emissions to satisfy question 13.0.1 of the General Information Form. [1300-PM-B1T0001 5/2012 Instructions]	Question 13.0.1 of the General Information Form in Attachment 1 has been revised to address this comment.
BE 6	The Application and GIF have different titles for M.L. Gordon. An application shall be signed by the owners of the dam or reservoir, water obstruction or encroachment, or the persons exercising primary responsibility for the dam or reservoir, water obstruction or encroachment. In the case of a partnership, one or more members of the partnership authorized to sign on behalf of the entire partnership shall sign the application. In the case of a corporation, it shall be signed by the president, vice president or other responsible official empowered to sign for the corporation. Provide consistent titles for Mr. Gordon and demonstrate that he is authorized to sign the Application. [25 Pa. Code §§105.13(i) and 25 Pa. Code §§106.12(f)]	The Application has been revised to provide a consistent title for M.L. Gordon. A “Delegation of Authority” letter authorizing Mr. Gordon to sign the Application on behalf of the partnership is provided in Attachment 1 of the Application.
BE 7	Provide a PNDI search clearance letter from the Pennsylvania Game Commission for threatened and endangered species under their jurisdiction. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]	The Pennsylvania Game Commission (PGC) provided clearance by letter dated June 8, 2016. A copy of this letter is provided in Attachment 6.
BE 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),	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

	<p>105.14(b)(5), 105.15(a), 105.14(b)(4)] (Remove period between 10 & 5 in 1st 105.13)</p>	<p>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>
<p>BE 9</p>	<p>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.</p>	<p>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</p>

	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)]	be no more than 60 days. At some HDDs with longer drills, however, the time period between installations 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.
BE 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.
BE 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.
BE 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" as the Comment incorrectly indicates. Therefore, no revision of the fee calculation spreadsheet is necessary.
BE 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. 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 installations of the two pipelines may exceed 60 days. 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.
BE 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.
BE 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 and durations for ATWS activities. 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.
BE 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)]	All drawings and maps provided in the application have been revised to remove this language and are considered to be final plans.
BE 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	The Project Description provided in Attachment 9 includes a narrative outlining SPLP's cathodic protection plans. A typical cathodic protection test

	where and which type of cathodic protection is proposed to be installed. [25 Pa. Code §§105.3(4), 105.11(a), 105.13 (e)(1)(i)(C)]	station detail has been added to the E&S Plan Sheets in Attachment 12.
BE 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 a narrative outlining SPLP's cathodic protection plans.
BE 15	For all Bore and HDD locations, identify where all pipe pull back, or assembly, or other areas where the pipe will be laid out, and where all construction and staging areas are located. Identify any temporary crossings or impacts for these areas to streams, wetlands, and floodways. Revise the application accordingly to include these impacts, including site-specific plans depicting the impacts and proposed temporary matting. [25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii)]	To reduce overall impacts to the landscape and, in particular, wetlands and streams, pullback areas are sited within the same workspaces designed for the open cut installation of the pipeline to the maximum extent practicable. Pullback areas not proposed within the workspaces needed to install the pipelines via open cut are accommodated by adding Additional Temporary Workspace (ATWS). Although avoided to the maximum extent practicable, if streams and wetlands are crossed by the pullback activity within the ATWS, then temporary crossings or impacts, such as temporary bridges, are identified on the Aerial Site Plans and 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 (Attachments 7 and 12). 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.

BE 16	<p>The site plan sheets and E&S plan sheets identify the floodway which appears to be measured from the centerline of the stream as opposed to measuring from the top of bank for the 50-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>In absence of a FEMA NFHL Floodway, the PA 50-foot floodways have been created by buffering the stream on each side of its centerline by one-half the bank width of the stream at the crossing plus 50 feet. For example, a stream that has a 5-foot bank width would be buffered by 52.5 feet on each side the stream's centerline, to ensure both the bank width and the 50-foot setback from the bank was encapsulated within the Chapter 105 floodway, as per the definitions identified in Chapter 105. FEMA NFHL data was downloaded and re-analyzed for this Project on September 27, 2016. The 105 and 102 E&S Plans have been checked to assure consistent presentation of these areas.</p>
BE 17	<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 that stockpiled soil will be completely removed and impacts will be minimized. [25 Pa. Code §§105.423, 105.18a(a), 105.18a(b), 105.15(a), 105.14(b)(4), 105.14(b)(11), 105.14(b)(13)]</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>
BE 18	<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 whether trench plugs are intended. Revise this detail to identify whether trench plugs are intended by this term or provide a detail for trench breakers. In addition, if trench plugs are proposed to maintain wetland hydrology, revise the detail to include trench plugs within the wetland for</p>	<p>The standard typical detail on the E&S plans has been revised to better detail ditch trench plug installation. 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>

	long wetland crossings and specify the distance increments. Furthermore, the E&S plan drawings depict trench plugs which are inconsistent with the detail. Revise the site plans to be consistent with the detail. [25 Pa Code §105.18a(a)(1) & §105.18a(a)(3) & §105.18a(a)(4) & §105.18a(a)(5) & §105.18a(b)(2) & §105.18a(b)(3) & §105.18a(b)(4) & §105.18a(b)(5) & §105.15(a)(1) & §105.14(b)(4) & §105.14(b)(11) & §105.14(b)(13) & §105.13(e)(1)(i)]	
BE 19	Installation of the trench plugs as depicted in the Trench Plug Detail is likely to result in adverse impacts to the hydrology of waters of the Commonwealth. Provide a revised detail showing the trench plug continuing to the bottom of the trench instead of ending at the top of the bedding material. [25 Pa. Code §§105.18a, 105.15(a)]	The typical standard trench plug detail provided within the E&S Plan provided in Attachment 12 has been revised to show the trench plug continuing to the bottom of the trench.
BE 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.
BE 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.
BE 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	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

	completed in the event a break or rupture occurs. [25 Pa. Code § 105.301(9)]	depicted on the aerial site plans provided in Attachment 7, Tab 7A.
BE 23	Provide county specific information within the project description. [25 Pa. Code §§105.13(e)(1)(iii)]	The Project Description has been revised to include basic county-specific information, such as the numbers and types of waters crossed.
BE 24	Provide letters from New Morgan Borough, Caernarvon, Cumru, and Robeson Townships commenting on the analysis of the project's impact on the floodway delineation and water surface profiles. [25 Pa. Code §§105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 New Morgan Borough, or Caernarvon, Cumru, or Robeson Townships. Therefore, the Project is not required to provide floodplain management consistency letters from these municipalities as part of SPLP's Chapter 105 application. Copies of correspondence with these townships are included in Attachment 14 of this application.
BE 25	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)]	The PPC Plan in Attachment 12, Tab 12A has been revised to remove the reference and cite appropriate regulations where necessary.
BE 26	Provide the letters of approval from PA American Water, Womelsdorf Robeson Joint Authority, and Elverson Water Company and update Question 16.0.2 of the GIF [1300-PM-B1T0001 5/2012 Instructions	The water suppliers listed in question 16.0.2 of the GIF are those preliminarily identified as potential temporary water suppliers to facilitate hydrostatic testing. The PPC Plan in Attachment 12, Tab 12A has been supplemented with a Water Supply Assessment, Preparedness Prevention and Contingency Plan (Attachment 12, Tab 12B), which addresses all correspondence with water and sewer authorities, including letters to the PA American Water,

		Womelsdorf Robeson Joint Authority, and Elverson Water Company. 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.
BE 27	The following comments pertain the USFWS' Bog Turtle determination of not likely to adversely affect:	NA
BE 27.a	Provide a copy of the April 2016 Bog Turtle Conservation Plan referenced in the USFWS' June 24 2016 letter. [25 Pa. Code §§105.14(b)(4); 105.18a(0(1), 105.18a(a)(5)]	The April Bog Turtle Conservation Plan is provided in Attachment 6.
BE 27.b	Provide copies of any additional information submitted to the USFWS for determination of affect. [25 Pa. Code §§105.14(b)(4), 105.18a(a)(1), 105.18a(a)(5)]	Additional information submitted to United States Fish and Wildlife Service (USFWS) is provided within Attachment 6.
BE 27.c	The February 29, 2019 Bog Turtle Conservation Plan states that Zone 2 will be mowed; however, the June 24, 2016 USFWS letter states that this area is to be hand cleared. Clarify the discrepancy. [25 Pa. Code §§105.14(b)(4), 105.18a(a)(1), 105.18a(a)(5)]	Zone 2 will be hand cleared in accordance with the revised letter received from the USFWS dated October 31, 2016. The revised April 2016 conservation plan states the same “Hand clearing within the Zone 2 areas will only occur between October 1 and March 31 to avoid impacts to individual bog turtles.”
BE 27.d	Identify the location of Zone 2 on the plan drawings. [25 Pa. Code §§105.14(b)(4), 105.18a(a)(1), 105.18a(a)(5)]	Zone 2 is stated within the conservation plan and the USFWS October 31 letter as being 300 feet from the edge of Wetlands A54 and A55. The conservation plans are to be strictly adhered too and SPLP’s Environmental Compliance Program as described in Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 provides the assurances for compliance with the Project’s conservation measures.
BE 27.e	Revise the plans to clearly identify the specific avoidance measures in the June 24, 2016 USFWS letter	We received a letter from USFWS dated October 31, 2016 which supercedes the June 24, 2016 letter from the

	<p>and indicate that they will be followed. [25 Pa. Code §§105.14(b)(4), 105.18a(a)(1), 105.18a(a)(5)]</p>	<p>USFWS. The October 31, 2016 letter is located in Attachment 6, Tab 6B along with the conservation plan for this species. The Project Description (Attachment 9) and the Impact Avoidance, Minimization, and Mitigation Procedures both provide a conservation listing summary. The USFWS letter and conservation plan provided in Attachment 6, Tab 6B are part of this project's description and will be implemented to ensure the determinations by the USFWS remain valid. The USFWS letter and Plan are the Project's plans with the specific avoidance measures that will be followed. The Procedures document also details the environmental compliance program to oversee implementation. In addition, to address the June 24 recommendations, an updated 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.</p>
<p>BE 28</p>	<p>It appears that a water obstruction and encroachment permit may be required for the proposed water withdrawals 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>There are no water withdrawals in Berks County. Additional information concerning the proposed water discharges in Berks County is provided below in response to specific DEP comments.</p> <p>All discharge outfall locations are shown on the Chapter 105 drawings and supporting information such as discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings. All discharge structures are located within the LOD.</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</p>

		<p>hydrostatic test waters. The length of time the structures will be used is also captured in the PAG10 permit application. 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>
BE 28.a	<p>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>	<p>There are no water withdrawals in Berks County.</p> <p>All discharge outfall locations are shown on the Chapter 105 drawings and supporting information such as typical discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings. Per a conference call with DEP on 09/27/16, it was agreed that call-out notes will be added on Chapter 102 drawings to refer to typical discharge structure details instead of supplying full cross sections at each outfall location. All discharge structures are located within the LOD.</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 length of time the structures will be used is also captured in the PAG10 permit application. 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</p>

		102 E&S drawings which are referenced in the Chapter 105 drawings.
BE 28.b	Revise the impact tables to include these impacts	All discharge outfall locations are located within the LOD and are included in the impact tables.
BE 28.c	Provide a description and plans of how the water will be discharged or withdrawn, the discharge capacity, the withdraw rate, the methods to be utilized, what equipment and structures are proposed to be placed and utilized in waters of the Commonwealth, the length of time which obstructions will remain in place.	<p>There are no water withdrawals in Berks County.</p> <p>In addition, SPLP has obtained a DEP PAG-10 General NPDES Discharge Permit (Pending Permit No PAG103570) to allow the discharge of hydrostatic test waters. The permit application captures the details of the mainline and HDD testing discharges including discharge capacity, methods, and structures.</p> <p>The length of time the structures will be used is also captured in the PAG10 permit application.</p>
BE 28.d	Provide cross sections, profiles, and hydraulic analysis for all piping placed in existing stream culverts and along and within stream channels.	There are no water withdrawals planned for Berks County; therefore no piping associated with this activity will be placed in existing stream culverts or along/within stream channels in Berks County.
BE 28.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.	There are no water withdrawals or related obstructions planned for Berks County.
BE 28.f	Provide documentation of submission of proposed water obstructions and encroachments for these activities to each jurisdictional (PHMC, USFWS, PAFBC, PGC, DCNR) agency and provide clearance from these agencies.	SPLP previously submitted a final request for determination letter from USFWS, Pennsylvania Fish and Boat Commission (PFBC), Department of Conservation and Natural Resources (DCNR) and PGC where the project was described consistent with the

		<p>attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Copies of these final requests have been submitted, and clearances from all four agencies have been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9. Copies of the submissions are located in Attachment 6.</p> <p>With respect to the PHMC, 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>
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		<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>
BE 29	<p>Provide a registered professional engineer's seal and signed certification, in accordance with §106.12(g), which shall read as follows: "I (name) do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications, and reports has been prepared in accordance with accepted professional practice, is true and correct, and is in conformance with Chapter 106 of the rules and regulations of the Department of Environmental Protection." If the seal/certification is submitted on a separate piece of paper, please have it refer specifically to the project name and application number shown above. Also, the seal shall be affixed on the cover page of the plan sheets. [25 Pa. Code §§106.12(g)]</p>	<p>This signed certification has been added to the Attachment 16 documents.</p>
BE 30	<p>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)]</p>	<p>Additional cross sections are located in Attachment 7, Tab 7G for intermittent and perennial stream crossings that do not have site-specific (Attachment 12), HDD (Attachment 7, Tab 7B), or bore (Attachment 7, Tab 7C) drawings prepared which contain profile information. All existing bank and wetland dimensions are provided within the aquatic resource</p>

		tables provided in Attachment 11. Typical cross-sectional details provided within the E&S Plan Sheets accommodate the lesser and more minor stream crossings (e.g., those designated ephemeral). All bed and bank and wetland contours are to be restored to the existing condition in accordance with the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4.
BE 31	There are certain portions of streams where the pipeline is located less than the minimum 25 feet away from the stream bank. These portions are near hard meanders thereby increasing the potential for exposure during stream migration. Identify and provide adequate erosion protection at these locations, or move the proposed pipes 25 feet away from the stream bank. Natural vegetative stabilization or natural stream design structures should be considered first to avoid and minimize impacts. [25 Pa. Code §§105.314]	Erosion protection is not necessary because the pipeline will be buried below streams in accordance with DEP regulations. 25 Pa. Code §105.313 requires that pipelines under stream beds must be buried at least 3 feet deeper than existing grade, which includes the lowest point in the stream bed. As set forth in the Application, SPLP has committed to burying the pipeline 5 feet below existing stream beds. Where the pipeline is within 25 feet of streams, or where streams are within the Permanent ROW, the depth of cover is designed to avoid and minimize the risk of exposure due to stream migration. The pipeline is also inspected regularly to meet PHMSA regulations. Inspections include the identification of exposures. The Alternative Analysis (Attachment 11, Enclosure E, Part 3) demonstrates that the pipeline is sited in the most environmentally protective route. Site-specific plans are provided as part of the E&S Plan sheet set for these crossing types and provide bank stabilization BMPs.
BE 32	The following items pertain to the provided stream data sheets and Table 3 of Section 11.	NA - Heading
BE 32.a	Table 3 of Tab 11 indicates that the bank to bank width of stream S-A74 is 3 feet, but the stream data sheet and page 3-24 of the Results Section of the Aquatic	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic

	Resource Report indicate the bank width is 2.5 feet. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A)]	Resource reports were estimated. Table 3 now has a footnote to include this explanation.
BE 32.b	Table 3 of Tab 11 indicates that the bank to bank width of stream S-B21 is 5 feet, but the stream data sheet and page 3-24 of the Results Section of the Aquatic Resource Report indicate the bank width is 4.5 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.
BE 32.c	Table 3 of Tab 11 indicates that the bank to bank width of stream S-B24 is 3 feet, but the stream data sheet and page 3-25 of the Results Section of the Aquatic Resource Report indicate the bank width is 2.5 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.
BE 32.d	Table 3 of Tab 11 indicates that the bank to bank width of stream S-C29 is 12 feet, but the stream data sheet and page 3-26 of the Results Section of the Aquatic Resource Report indicate the bank width is 12 inches. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A)]	The bank width of stream S-C29 has been changed to 1 foot on Table 3 of Tab 11 (now referred to as Attachment 11) and is now consistent with the stream data sheet and page 3-26 of the Results Section of the Aquatic Resource Report. The associated 50-foot floodway has been modified to reflect this change as well.
BE 32.e	Table 3 of Tab 11 indicates that the bank to bank width of stream S-K76 is 7 feet, but there are two different stream data sheets for S-K76 one of which indicates the bank width is 10 feet. These data sheets contain very different information. Clarify these discrepancies. [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.
BE 32.f	Table 3 of Tab 11 indicates that the bank to bank width of stream S-BB34 is 15 feet, but the stream data sheet indicates the bank width is 6-15 feet and page 3-28 of the Results Section of the Aquatic Resource Report	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.

	indicates that the bank width is 10.5 feet. What is the width of the stream at the proposed crossing? Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A)]	
BE 32.g	A stream data sheet was provided for Stream S-C12, and page 3-29 of the Results Section of the Aquatic Resource Report identifies the stream as being part of the study area; however, corresponding information could not be found in Tab 7A or Table 3 of Tab 11. Provide the missing information. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]	Stream S-C12 is not proposed to be impacted by the Project, and its label was left off the joint permit application site plans unintentionally. A stream data sheet was provided for the stream because all streams, wetlands, and ponds in the Aquatic Resource Report are those features within a survey corridor, and not necessarily within the Project's Limit of Disturbance. The label for Stream S-C12 is now displayed on the revised aerial site plans located in Tab 7A. The stream was not included on Table 3 of Tab 11 (now Attachment 11) because there are no proposed impacts.
BE 32.h	Table 3 of Tab 11 indicates that the bank to bank width of stream S-C9 is 2 feet, but the stream data sheet and page 3-29 of the Results Section of the Aquatic Resource Report indicate the bank width is 18 inches. 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.
BE 32.i	Table 3 of Tab 11 indicates that the bank to bank width of stream S-C1 is 3 feet, but the stream data sheet and page 3-29 of the Results Section of the Aquatic Resource Report indicate the bank width is 30 inches. 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.
BE 32.j	Table 3 of Tab 11 indicates that the bank to bank width of stream S-C2 is 5 feet, but the stream data sheet and page 3-29 of the Results Section of the Aquatic Resource Report indicate the bank width is 4.5 feet.	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.

	Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A)]	
BE 32.k	A stream data sheet was provided for Stream S-B26, and page 3-31 of the Results Section of the Aquatic Resource Report identifies the stream as being part of the study area; however, corresponding information could not be found in Tab 7A or Table 3 of Tab 11. Provide the missing information. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)] (Remove comma from between §§)	Stream S-B26 is not proposed to be impacted by the Project, and its label was left off the joint permit application site plans unintentionally. A stream data sheet was provided for the stream because all streams, wetlands, and ponds in the Aquatic Resource Report are those features within a survey corridor, and not necessarily within the Project's Limit of Disturbance. The label for Stream S-B26 is now displayed on the aerial site plans located in Tab 7A. The stream was not included on Table 3 of Tab 11 (now Attachment 11) because there are no proposed impacts.
BE 32.l	Table 3 of Tab 11 indicates that the bank to bank width of stream S-A63 is 3 feet, but the stream data sheet and page 3-35 of the Results Section of the Aquatic Resource Report indicate the bank width is 2.5 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.
BE 32.m	Table 3 of Tab 11 indicates that the bank to bank width of stream S-A61 is 2 feet, but the stream data sheet and page 3-36 of the Results Section of the Aquatic Resource Report indicate the bank width is 3 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.
BE 32.n	A stream data sheet was provided for Stream S-J50, and page 3-36 of the Results Section of the Aquatic Resource Report identifies the stream as being part of the study area; however, corresponding information could not be found in Tab 7A or Table 3 of Tab 11. Provide the missing information. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]	Stream S-J50 is not proposed to be impacted by the Project, and its label was left off the joint permit application site plans unintentionally. A stream data sheet was provided for the stream because all streams, wetlands, and ponds in the Aquatic Resource Report are those features within a survey corridor, and not necessarily within the Project's Limit of Disturbance.

		The label for Stream S-J50 is now displayed on the aerial site plans located in Tab 7A. The stream was not included on Table 3 of Tab 11 (now Attachment 11) because there are no proposed impacts.
BE 32.o	Stream data sheets could not be found for S-K77 and S-A64. Provide the missing information. [25 Pa. Code §§105.21(a)(1)]	The missing data sheets for S-K77 and S-A64 are now provided within the supplemental information provided in Attachment 11, Enclosure A.
BE 33	Revise the application plans to include all avoidance and minimization measures for identified species of concern associated with water obstructions and encroachments from the Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, Pennsylvania Department of Conservation and Natural Resources, and the U.S. Fish and Wildlife Service. Ensure any seed mixtures, matting, or other specified items are included in the plans and/or E&S plans. In addition, revise the Environmental Assessment to discuss the avoidance and minimization measures and clearances received. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.16(c)(3)]	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 Pennsylvania Natural Diversity inventory (PNDI) and trout stream restrictions. All of the restrictions and avoidance measures committed to and approved by PNDI agencies are included in a summary table in the Project Description, Attachment 9, within the PNDI agency final determination letters in Attachment 6, and the accepted Conservation Plans in Attachment 6, Tab 6B. 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 some of the information, not all is depicted. SPLP will implement a comprehensive Environmental Training and Inspection program designed specifically to ensure contractors are appropriately notified and are adhering to such restrictions.
BE 34	Revise the plan drawings to include, or refer to details or notes which include the avoidance and minimization measures for wetland AM2 and C6 as outlined in the	The PNDI Agency determination letter and associated conservation plans are to be strictly adhered to (Attachment 6). SPLP's Environmental Compliance

	USFWS' June 24, 2016 letter. [25 Pa. Code §§105.21(a)(1), 105.15(a), 105.14(b)(4), 105.14(b)(6), 105.16(c)(3)]	Program as described in Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 provides the assurances for compliance with the Project's conservation measures wherever they occur.
BE 35	The following comments pertain to the plans provided to the townships in Berks County	NA - Heading
BE 35.a	The HDD lengths shown on sheets 26 and 27 of Tab 7A are different than those shown on Sheets 304 and 305 of 321 provided to Brecknock Township. Provide consistent and up-to-date plans to the Department and Brecknock Township. [25 Pa Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Brecknock Township and that correspondence is provided in Attachment 14.
BE 35.b	The proposed block valve shown on sheet 306 of 321 provided to Brecknock Township is not identified or depicted the same on Sheet 28 of Tab 7A. Provide consistent and up-to-date plans to the Department and Brecknock Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Brecknock Township and that correspondence is provided in Attachment 14.
BE 35.c	The bore lengths shown on Sheet 39 of Tab 7A are different than those shown on Sheet 317 of 321 provided to Caernarvon Township. Provide consistent and up-to-date plans to the Department and Caernarvon Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Caernarvon Township and that correspondence is provided in Attachment 14.
BE 35.d	The HDD lengths shown on Sheets 40 and 41 of Tab 7A are different than those shown on Sheets 318 and 319 of 321 provided to Caernarvon Township. Provide consistent and up-to-date plans to the Department and Caernarvon Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Caernarvon Township and that correspondence is provided in Attachment 14

BE 35.e	There is a proposed boring location on Sheet 42 of Tab 7A that is not on Sheet 320 of 321 provided to Caernarvon Township. Provide consistent and up-to-date plans to the Department and Caernarvon Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13 (e)(1)(vi)]	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 Caernarvon Township and that correspondence is provided in Attachment 14.
BE 35.f	The HDD lengths shown on Sheets 15 and 16 of Tab 7A are different than those shown on Sheets 293 and 294 of 321 provided to Cumru Township. Provide consistent and up-to-date plans to the Department and Cumru Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Cumru Township and that correspondence is provided in Attachment 14.
BE 35.g	The proposed pipeline route on Sheet 20 of Tab 7A is different than the one shown on Sheet 298 of 321 provided to Cumru Township. Provide consistent and up-to-date plans to the Department and Cumru Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Cumru Township and that correspondence is provided in Attachment 14.
BE 35.h	The bore crossings shown on Sheet 35 of Tab 7A are different than those shown on Sheet 313 of 321 provided to New Morgan Borough. Provide consistent and up-to-date plans to the Department and New Morgan Borough. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)] (comma after (v))	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 New Morgan Borough and that correspondence is provided in Attachment 14.
BE 35.i	There is a proposed boring location on Sheet 37 of Tab 7A that is not shown on Sheet 315 of 321 provided to New Morgan Borough. Provide consistent and up-to-date plans to the Department and New Morgan Borough. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 New Morgan Borough and that correspondence is provided in Attachment 14.
BE 35.j	The bore lengths shown on Sheet 30 of Tab 7A are different than those shown on Sheet 309 of 321	The mapping in Attachment 7, Tab 7A and Attachment 14 has been updated to reflect consistent and up-to-date

	provided to Robeson Township. Provide consistent and up-to-date plans to the Department and Robeson Township. [25 Pa Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	plans. Updated mapping has been provided to Robeson Township and that correspondence is provided in Attachment 14.
BE 35.k	The bore lengths shown on Sheet 31 of Tab 7A are different than those shown on Sheet 309 of 321 provided to Robeson Township. Provide consistent and up-to-date plans to the Department and Robeson Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Robeson Township and that correspondence is provided in Attachment 14.
BE 35.l	The bore lengths shown on Sheet 4 of Tab 7A are different than those shown on Sheet 282 of 321 provided to South Heidelberg Township. Provide consistent and up-to-date plans to the Department and South Heidelberg Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Heidelberg Township and that correspondence is provided in Attachment 14.
BE 35.m	The HDD lengths shown on Sheet 6 of Tab 7A are different than those shown on Sheet 284 of 321 provided to South Heidelberg Township. Provide consistent and up-to-date plans to the Department and South Heidelberg Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Heidelberg Township and that correspondence is provided in Attachment 14.
BE 35.n	There is a proposed boring location shown on Sheet 6 of Tab 7A that is not shown on Sheet 284 of 321 provided to South Heidelberg Township. Provide consistent and up-to-date plans to the Department and South Heidelberg Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Heidelberg Township and that correspondence is provided in Attachment 14.
BE 35.o	There is ATWS on Sheet 6 of Tab 7A that is larger than the one shown on Sheet 284 of 321 provided to South Heidelberg Township. Furthermore, there are two additional ATWS shown on Sheet 6 that are not	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

	shown on Sheet 284. Provide consistent and up-to-date plans to the Department and South Heidelberg Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	Heidelberg Township and that correspondence is provided in Attachment 14.
BE 35.p	The floodplain for Stream S-B50 is shown on Sheet 285 of 321, but not on Sheet 7 of Tab 7A. The bore lengths depicted on Sheet 7 are different lengths than those shown on Sheet 285. Furthermore, there are additional ATWS shown on Sheet 7 that are not on Sheet 285. Provide consistent and up-to-date plans to the Department and South Heidelberg Township. [25 Pa Code §§105.21(a)(1), 105.13(e)(1)(v), 105.130(1)(vi)]	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 Heidelberg Township and that correspondence is provided in Attachment 14.
BE 35.q	The proposed block valve shown on Sheet 8 of Tab 7A is considerably larger than the one shown on Sheet 286 provided to Spring Township. There are also boring locations shown on Sheet 8 that are not identified on Sheet 286. Provide consistent and up-to-date plans to the Department and Spring Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Heidelberg Township and that correspondence is provided in Attachment 14.
BE 35.r	There is a proposed boring location on Sheet 10 of Tab 7A that is not shown on Sheet 287 of 321 provided to Spring Township. Provide consistent and up-to-date plans to the Department and Spring Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Spring Township and that correspondence is provided in Attachment 14.
BE 35.s	The bore lengths shown on Sheet 11 of Tab 7A are different than those shown on Sheet 289 of 321 provided to Spring Township. Provide consistent and up-to-date plans to the Department and Spring Township. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(v), 105.13(e)(1)(vi)]	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 Spring Township and that correspondence is provided in Attachment 14.

BE 36	<p>ATWS on Sheet 1 of Tab 7A in the floodplain and floodway of Stream S-B16 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 the stream. [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 the location of the spoil and protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands, including the floodplain and floodway of Stream S-B16. 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>
BE 37	<p>ATWS on Sheet 31 of Tab 7A in the floodway of Stream S-H21 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 the stream. [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 the location of the spoil and depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands, including the floodplain and floodway of Stream S-H21. 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>
BE 38	<p>ATWS on Sheet 17 of Tab 7A in the floodway of Stream S-B31 are designated for spoil; however, a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to the stream. [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 the location of the spoil and depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands, including the floodplain and floodway of Stream S-B31. 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>
BE 39	<p>ATWS on Sheet 35 of Tab 7A in the floodway of Streams S-Q90 and S-Q89 are designated for spoil; however, a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to</p>	<p>A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict the location of the spoil and depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands, including the</p>

	minimize the potential for discharge of fill material to the stream. [25 Pa. Code §§105.13(g)]	floodplain and floodway of Streams S-Q90 and S-Q89. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil.
BE 40	The site specific drawings reference "Stream Restoration" but no detail or plan for this stream restoration has been provided. Provide a plan for the stream restoration referenced in the site specific drawings. In addition, clarify if this will be utilized at additional stream crossings or not and identify the crossings where it will be utilized. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(i)(C), 105.311(2), 105.15(a)]	The site specific drawings provided within 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.
BE 41	The Impact Plan drawings and Table 3 of Tab 11 identify the corresponding E&S plan sheets incorrectly. Revise the plan drawings and table to be accurate. [25 Pa. Code §§ 105.21 (a)(1)]	The site plans and table have been revised to reflect the correct E&S Plan sheets.
BE 42	The E&S plan drawings do not depict the proposed temporary timber mats crossing the wetlands, they only depict them up to the wetland boundary. Revise the plan drawings to depict the temporary matting crossing the wetland. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	The CAD wetland polygon layer was displayed on "top" of the timber mat layer, thus obscuring the timber matting. The E&S sheets have been revised to show the wetland polygons "behind" the timber mats so that the timber mats are fully visible.
BE 43	The plans indicate that Streams S-K77, S-A73, S-B23, S-BB43, S-C1, S-C2, S-B27, S-C103, S-C108, S-H23, S-H22, S-H13, S-H15, and S-Q89 flow in and along and under the ROW and proposed pipelines and not across and immediately through them or start/end in the area of excavation for the pipes. Provide site-specific plans, cross sections, and profiles that adequately depict the existing and proposed conditions, stream	Site-specific drawings have been revised or new site-specific drawings prepared for these crossings and are 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 referenced and provided with the E&S Plan provided in Attachment 12 and Impact Avoidance,

	bed, stream banks, limits of excavation, and methods for the stream restorations. [25 Pa. Code §§105.13(e)(1)(i)(C), 05.13(e)(1)(i)(G)] (05.13 is correct from letter, probably should be 105.13)	Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4.
BE 44	There are plan sheets in Tab 7A with streams that do not show enough information beyond the temporary right-of-way (ie. Floodway delineation, stream orientation, and hydrologic connections) to properly evaluate the proposed impacts. Provide a better depiction of the streams outside of the proposed temporary rights of way. [25 Pa. Code §§105.13(e)(1)(i)(A)]	The plans in Attachment 7, Tab 7A provide the delineation of resources beyond the LOD. Delineations were performed on a 200-foot-wide survey corridor. Reroutes and Project changes were also field-delineated and delineations occurred beyond the Project areas to capture adjacent resources (Attachment 11, Enclosure A).
BE 45	The Auger Bore Drawing, PA-BR-0060.0000-RD, depicts the auger bore pits in different locations than the E&S plan drawing ES-1.21. In addition, the Auger Bore plan depicts temporary workspace in stream S-C33 and wetland C13 which are not depicted on the E&S plan or site plan drawings. Revise the application to contain consistent and accurate plans. [25 Pa. Code §105.13(e)(1)(i)(C), 105.21(a)(1)]	Drawing PA-BR-0060.0000-RD located in Attachment 7, Tab 7C has been updated to be consistent with all plans and/or drawings and shows the current and proposed conditions. The drawing has been revised to show that there is no temporary workspace in Wetland C13 or Stream C33.
BE 46	Wetland BB42 is not identified on the impact table or site plans to be impacted; however, E&S plan drawing ES-1.74 depicts proposed impacts to this wetland. Revise this E&S drawing to be accurate and consistent with the remainder of the application. [25 Pa. Code §§105.13(e)(1)(i), 105.15(a), 105.21(a)(1)]	ES-1.74 has been revised to shift the LOD out of the wetland. A layer in CAD made the road appear as though it was overtop of the wetland. The LOD layering has been revised.
BE 47	Provide a site specific plan drawing and cross section drawing for stream S-B31 which depicts at a minimum: the stream banks, bore pit locations, travel lanes, proposed pipelines, depth of the proposed pipelines beneath the stream, and stream bed. In addition, E&S plan drawing ES-1.30 depicts the proposed bore pit	Site-Specific Plans located within the E&S Plan sheet sets have been revised to address complex aquatic resource crossings, including S-B31, and will aid in the restoration of contours and hydrology. For other areas, the construction and restoration methods are the same methods commonly used and standard for the industry,

	<p>within the stream which is inconsistent with the site plan drawings. Revise the E&S plan to be consistent with the site plan drawing. [25 Pa. Code §§105.13(e)(1)(i), 105.301]</p>	<p>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 - Utility Line Stream Crossings and the USACE's Pennsylvania State Programmatic General Permit– requirement that original grades must be restored after trenching and backfilling of streams, and that any excess fill material must be removed. These performance standards will be adhered to for this Project. These standard stream utility installation crossing methods have been documented to result in successful restoration of cross sections and profiles.</p>
BE 48	<p>The plan site plan drawing indicates that stream S-BB34 will utilize an existing bridge. However, the E&S plan drawing ES-1.33 depicts placing timber matting over the bridge. If a temporary structure is proposed over the existing bridge, provide site specific plans and a cross section depicting the proposed temporary structure. If only the existing bridge is proposed to be utilized, revise the E&S plan drawing accordingly, and revise the impact table to accurately depict that no temporary impacts are proposed to the stream. [25 Pa. Code §§105.13(e)(1)(i), 105.151(1), 105.21(a)(1)]</p>	<p>The E&S Plan has been revised to remove the temporary matting and the impacts have been revised to be a crossing method of existing bridge over the streams on the access road, with a dry crossing of S-B34 at the pipeline.</p>
BE 49	<p>The impact table identifies that stream S-B33 will have a temporary impact in addition to the permanent impact depicted as the proposed permanent ROW. However, no temporary impact is depicted on the plan drawings. Revise the application to clarify where the temporary impact is proposed and provide plan drawings for it, or revise the impact table to remove the proposed</p>	<p>The site plans (Attachment 7, Tab 7A) and impact table (Attachment 11) show the temporary impacts to S-B33 at the location of the Temporary Access Road.</p>

	temporary impact if it is not proposed. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1), 105.15(a)]	
BE 50	The Auger Bore Plan drawing, PPP-PA-BR-0127.0000-RD, does not depict the wetland boundaries or stream banks and E&S plan drawing ES-1.42 does not depict the stream banks. It appears that the receiving pit for the auger bore is located within wetland B32 and stream S-B30. Revise the Auger Bore and E&S plan drawings to provide site specific plans of the proposed impacts and depict the stream banks and wetlands and the location of the stream banks and bed on the profile. [25 Pa. Code §§105.13(e)(1)(i), 105.301, 105.21(a)(1)]	Drawing PA-BR-0127.0000-RD located in Attachment 7, Tab 7C has been updated to be consistent with all plans and/or drawings and show the current and proposed conditions. The E&S plan sheet has also been updated accordingly. The revised drawings show Wetland B32 and Stream B30 as not being impacted by the bore pits.
BE 51	Stream S-B30 appears to start within or adjacent to the proposed receiving pit for the auger bore. Revise the application to discuss and provide plans outlining how source(s) of the stream will be protected and maintained. Revise the Environmental Assessment and Mitigation Plan to discuss the impacts to the stream both within the ROW and the downstream affects to the resources and properties and provide compensatory mitigation for streams in which flow will be adversely affected. [25 Pa. Code §§105.15(a), 105.14(b)(4), §105.13(e)(1)(ix)]	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) and within the E&S Plan. These performance standards will be adhered to for this Project and include protection of waters adjacent inside and adjacent to designated workspaces. These standard stream utility installation crossing methods have been documented to result in successful installation and protection and restoration of streams and wetlands. The bore pit is not located within the stream and is 11 feet from the nearest bank and therefore is not expected to be adversely affected.
BE 52	The Auger Bore drawing PPP-BR-0132.0000-RD depicts the auger bore pit West of wetland B31. However, the E&S plan drawing ES-1.44 and the site specific plan drawing B29-B31-C-101 depict it located within wetland B31. Revise the E&S plan drawing to	All Plans, maps, and figures have been updated to contain consistent and up-to-date information. The bore pits for BR-0132.0000-RD have been sited to be outside of Wetland B31.

	accurately depict the auger bore pit West of this wetland and be consistent with the impact table and other plan drawings. [25 Pa. Code §§105.113(e)(1)(i), 105.21(a)(1)]	
BE 53	The site specific drawing B29-B31-C-101 does not depict the temporary matting across wetland B31 as identified on the other plans and impact table. Revise this plan drawing to depict this temporary crossing. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	All Plans, maps, and figures have been updated to contain consistent and up-to-date information.
BE 54	The waterbody identified as Pond-B3 is an online pond with an UNT to Allegheny Creek flowing through it. Revise the application to identify that it is also an UNT to Allegheny Creek and identify the Chapter 93 Designated use. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]	Table 3 located within Tab 11 has been updated with a footnote to reflect that Pond-B34 is also an UNT to Allegheny Creek and the Chapter 93 designation is provided as well.
BE 55	Based on the contours, it appears that stream S-C103/S-C104 continues to flow outside of the area delineated and an additional stream may also be present, both adjacent to or within the proposed Beckersville pump station area. The Aquatic Resource Report or its supplements do not identify that the Beckersville Pump Station area has been investigated for waters of the Commonwealth. Investigate this pump station area for waters of the Commonwealth and provide an aquatic resource report for the area, and identify any streams, floodways, wetlands, or bodies of water on the plan drawings. Revise the application to include any proposed impacts. [25 Pa. Code §§105.13(e)(1)(i)(A)]	An investigation was completed for the Beckersville station for the previous submittal, however the LOD was extended in the area noted by DEP in the vicinity of S-C103/S-C104. Tetra Tech performed a follow-up field visit to evaluate the additional location and flow direction of stream C103/C104. Investigation of the adjacent areas to the LOD did extend the stream alignment here, however the LOD does not encroach the stream bed, banks, or floodway. No new streams or wetlands were identified within the survey area. The survey area, including the entire Beckersville pump station LOD is included in the Aquatic Resources Report Addendum provided in Attachment 11, Enclosure A.
BE 56	The Auger Bore plan drawing PPP-PA-BR-0156.0000-RD depicts temporary ROW and workspaces within streams S-C108 and S-C107 which are not depicted on	Drawing PA-BR-0156.0000-RD located in Attachment 7, Tab 7C is consistent with all plans and drawings.

	the other plan drawings or the impact table. Revise this Auger Bore plan drawing to accurately depict the proposed temporary ROW and workspaces. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	There are no temporary workspaces in Streams C107 and C108.
BE 57	The E&S plan drawing ES-1.51 depicts the proposed auger bore pit within stream S-C107; however, the impact table and other plan drawings depict this pit East of this stream. Revise the E&S plan to accurately identify the location of the auger bore pit East of the stream to avoid and minimize impacts. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	The bore pit has been moved out of Stream S-C107 on ES-5.51.
BE 58	Provide the Auger Bore drawing for the proposed bore of the pipelines underneath stream S-H21. [25 Pa. Code §§105.13(e)(1)(i), 105.301]	Drawing BR-0161.0000-RD in Attachment 7, Tab 7C provides the Auger Bore drawing for Stream S-H21.
BE 59	The auger bore drawing PPP-PA-BR-0165.0000-AR depicts temporary ROW and workspaces in wetland Q80 and stream S-Q89 which are not depicted on the other plan drawings or impact tables. Revise this auger bore drawing to be consistent with the rest of the application. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	Drawing PA-BR-0165.0000-AR located in Attachment 7, Tab 7C has been updated to be consistent with all plans and/or drawings and shows the current and proposed conditions. Wetland Q80 and Stream S-Q89 are not impacted by temporary workspace.
BE 60	The temporary impact acres in the impact table for wetland W35 is not consistent with the area depicted on the site plan drawings. Revise the application to be consistent and accurate in the proposed temporary impacts to this wetland. [25 Pa. Code §105.15(a), 105.21(a)(1)]	The impacts to Wetland W35 are provided in the revised application and have been checked for consistency.
BE 61	Provide profiles for the temporary crossings identified in the E&S plan that depict at a minimum the existing conditions and the proposed conditions. And provide information regarding the length of time that all temporary crossings will be in place. Some of the plans	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

	appear to use unnatural stream contours upon restoration. Identify the aggregate and the typical timber mat crossing being used. [25 Pa. Code §§105.13(e)(1)(i)(B), 105.13(e)(1)(i)(C)]	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.
BE 62	Revise plan sheets 7 and 40 to identify the FEMA floodplain boundaries for streams S-B50 and S-A57 respectively. [25 Pa. Code §§105.13(e)(1)(i)(A)]	These FEMA floodplains have been added to the drawings (Attachment 7, Tab 7A) and impacts associated with these features have been tabulated and summarized in the revised application.
BE 63	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-C2, S-C101, S-C102, and S-H21. Revise the application to explain their start/end points, at a minimum, within the entire survey area, and ensure that the floodways and proposed floodway impacts are fully identified and depicted. Provide color photographs which depict the resource and surrounding area sufficiently, including photographs of start/end locations. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(iv)]	The application has been supplemented with an aquatic resource addendum provided in Attachment 11, Enclosure A. The stream lengths and stop and start points were verified or modified based on additional field work. Additional photographs and narrative are provided within the addendum report.
BE 64	Streams S-C101 and S-C102 are identified as UNTs to Allegheny Creek; however, they are UNTs to Sleepy Hollow Run. Revise the application to identify the streams correctly. [25 Pa Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]	Streams S-C101 and S-C102 have been updated in Table 3 of Attachment 11 to correctly identify their status and classifications as Unnamed Tributaries to Sleepy Hollow Run.
BE 65	The site plan drawings contain a note that Hay Creek and tributaries thereto have an Existing Use Classification of HQ-CWF. However, this existing use	The site plan drawings have been revised accordingly.

	designation is for a reach downstream. Revise the application plans to remove this note. [25 Pa. Code §§105.15(a), 105.21(a)(1)]	
BE 66	The Mitigation Plan states that the excavated stream banks will be reseeded; however the E&S detail for bank restoration does not indicate this. Revise the Bank Restoration Detail to be consistent and include the native seeding mixture to be utilized. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.21(a)(1)]	The bank restoration details have been revised to indicate that stream banks will be reseeded in accordance with the approved seed mixes (Attachment 11, Enclosure E, Part 4).
BE 67	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.
BE 68	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.

<p>BE 69</p>	<p>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 baths 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)]</p>	<p>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.</p>
<p>BE 70</p>	<p>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)]</p>	<p>Stream beds at open cut stream crossings will be restored in accordance with the E&S Plan provided in Attachment 12. Native stream bed material will be separated from other spoil for reinstallation after restoration (see Attachment 12). An evaluation was done for sheer 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.</p>
<p>BE 71</p>	<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</p>	<p>As described within the enclosures of the Comprehensive Environmental Evaluation provided in Attachment 11 (Enclosure E), impacts to water resources, including streams S-A73, S-B23, S-B48, S-C2, S-C101, S-C102, S-H21, S-H15, S-H16, S-Q62, and S-J52, have been minimized. Where planned, the crossing and restoration of all project streams will use</p>

	<p>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-A73, S-B23, S-B48, S-C2, S-C101, S-C102, S-H21, S-H15, S-H16, S-Q62, and S-J52. [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>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 will be 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, and therefore compensatory mitigation is not required.</p>
<p>BE 72</p>	<p>The Mitigation Plan states that for HDD crossings, a telemetry guidance system will be used.</p>	<p>NA - Heading</p>
<p>BE 72.a</p>	<p>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)]</p>	<p>Telemetry guidance systems for HDDs can include a cable, wire, or other obstructions to be placed in waters of the Commonwealth. The telemetry guidance system requires a 4-6 gauge wire to be strung along the HDD alignment to allow for accurate drill head tracking. This is laid on the surface of the uplands and along the bottom of streams and waterbodies and would follow the surface and bottom elevation profile shown within each HDD drawing. Based on SPLP's coordination with PFBC, no waters of the Commonwealth requiring an Aids to Navigation (ATON) Plan are crossed by Horizontal Direction Drill (HDD) in Berks County.</p>

BE 72.b	If cables, wires, or other obstructions will be utilized across waters of the Commonwealth revise the application to identify these temporary impacts, include them in the impact tables. Provide plan drawings and cross sections depicting the obstructions, and provide information on the purpose, function, and length of time they will be installed. [25 Pa. Code §§105.13(e)(1)(i), 105.301(3), 105.301(5), 105.15(a), 105.13(e)(1)(iii)]	Based on SPLP's coordination with PFBC no waters of the Commonwealth crossed in Berks County require an ATON Plan.
BE 72.c	If cables or other obstructions are proposed over streams, an Aids-To-Navigation (ATON) Plan may be required by the PA Fish and Boat Commission; therefore, if cables or other obstructions are proposed, provide approved ATON plans along with, approvals and/or documentation from the PA Fish and Boat Commission documenting where ATON plans are not applicable. Contact Thomas Burrell with the Pennsylvania Fish and Boat Commission at 717.705.7838 regarding ATON requirements. [25 Pa. Code §§105.14(b)(6), 105.21(a)(2), 105.14(b)(2)]	Based on SPLP's coordination with PFBC, no waters of the Commonwealth crossed in Berks County require an ATON Plan.
BE 73	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)(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.
BE 74	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	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

	life be able to pass throughout the stream safely? [25 Pa. Code § 105.401(4), 105.13(g)]	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.
BE 75	The application states that the period of instream work to install the proposed pipeline(s) will be less than 24 hours in minor waterbodies and 48 hours for crossing of "intermediate" (10-30' across) waterbodies. Describe how these timeframes coincide with the hydrostatic testing procedures outlined in the project description. Do the trenches remain open during testing? To facilitate the further understanding of your project, revise your application to discuss the estimated time installation will take in crossings of wetlands and larger watercourses. [25 Pa. Code § 105.13(e)(1)(iii)]	For the open cut crossings of larger waters, the E&S Plan notes and details provided in Attachment 12 and Impact Avoidance, Minimization, and Mitigation Procedures (Attachment 11, Enclosure E, Part 4) have been revised to indicate that in-stream work to occur in minor water bodies (>10 feet wide) within 24 hours, and in major water bodies (10 to 100 feet wide) within 48 hours. Open-cut wetlands are tested along with the mainline testing and testing would be when the mainline is ready. Stream and wetland crossings are immediately backfilled and prior to testing.
BE 76	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.
BE 77	At least the following wetlands which are exceptional value and which have not been identified as such in the application: C1, C2, C5, B32, B33, B28, B27, B29, B30, B31, W302, H25, H26, and W301. In addition, it also appears wetland K25 is likely EV based on a review of aerial mapping and what appears to be stream and wetland presence outside of the survey area. This wetland should be evaluated to determine if it continues and is in or along the reach of a wild trout stream or tributary thereto. Revise the application accordingly to identify EV wetlands. [25 Pa Code §105.13(e)(1)(x)(B), 105.17(1), 105.21(a)(1)]	The application has been revised to classify all of these wetlands, including K25, as Exceptional Value due to the newly listed status of Allegheny Creek as a PFBC designated stream with naturally reproducing trout populations.
BE 78	Provide an assessment of the functions and values of any additional Exceptional Value wetlands and wetland with impacts over 1 acre. [25 Pa. Code §§105.13(e)(3), 105.15(a)]	Detailed functions and values assessments have been included for all Exceptional Value wetlands regardless of acreage (Attachment 11, Enclosure C).
BE 79	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.
BE 80	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	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

	<p>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)</p>	<p>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.</p>
BE 80.a	<p>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] (Removed underscore between General & Information Form Instructions)</p>	<p>The responses to questions 14, 15, and 16 of the General Information Form in Attachment 1 have been revised to address this comment.</p>
BE 80.b	<p>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]</p>	<p>Attachment 12, Tab 12B provides 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.</p>
BE 80.c	<p>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</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 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</p>

	and minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.13(e)(1)(ix), 105.14(b)(5)]	alternative to further avoid and minimize impacts. The Water Supply Assessment, Preparedness, Prevention and Contingency Plan in Attachment 12, Tab 12B identifies and assesses impacts and provides BMPs.
BE 81	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.
BE 81.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.
BE 81.b	Provide procedures that will be followed to investigate and resolve impacts to private water supplies should they occur as a result of the proposed activities. These procedures should discuss, at a minimum, how private water supply owners will be alerted in the event of an inadvertent return and how impacts will be resolved and/or mitigation.	Attachment 12, Tab 12B includes a Water Supply Assessment, Prevention, Preparedness, and Contingency Plan that addresses potential impacts and describes the procedures to prevent and prepare for resolution of water supply impacts should they occur, including notification procedures.
BE 82	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	Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan: the Water Supply Assessment, Preparedness Prevention and Contingency Plan, the IR Plan, and Void Mitigation Plan for Karst Terrain and

	<p>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 §105.13; §105.14(b)(4); §105.14(b)(5); §105.18a(5); §105.18a(b)(5); §91.33(b)]</p>	<p>Underground Mining. These supplemental 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>
<p>BE 83</p>	<p>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]</p>	<p>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 by and/or the EI through visual observation.</p>
<p>BE 84</p>	<p>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</p>	<p>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,</p>

	Pa. Code §§105.13(e)(1)(x), §105.15(a)] (Remove period before "x")	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.
BE 85	Revise Enclosures C & D to identify and discuss the impacts of the water obstructions and encroachments on the Berks County Conservancy's Forest Stewardship Land easement in the area of S-C108. This area is identified on the PA Conservation Explorer (https://conservationexplorer.dcnr.pa.gov/content/map). [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5)]	Enclosure D and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts) have been updated to include discussion of the Berks County Conservancy's Forest Stewardship Land easement.
BE 86	Revise Enclosure D to discuss the impacts of from the water obstructions and encroachments on Sovereign Sports Park and Shiloh Hills Park and provide documentation of approval of the proposed water obstructions and encroachments from the appropriate park entities. These area are identified on the PA Conservation Explorer (https://conservationexplorer.dcnr.pa.gov/content/map). [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5)]	Enclosure D and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts) have been revised to discuss Sovereign Sports Park and Shiloh Hills Park. SPLP is working with the park administrators to gain approval for the pipeline ROW easements in these areas.
BE 87	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.
BE 88	Revise Enclosure D of the Environmental Assessment to discuss the impacts on the Game Lands crossed in Berks County by the Water Obstructions and Encroachments, and provide documentation of	Enclosure D has been updated to discuss the Project's impacts on State Game Lands in Berks County. In addition, Attachment 11, Enclosure E, Part 2 (Resource

	<p>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)]</p>	<p>Identification and Project Impacts) discusses impacts to State Game Lands crossed by the Project.</p> <p>With respect to the request to provide supporting 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>BE 89</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), 105.15(a), 105.14(b)(5)]</p>	<p>Attachment 11, Enclosure D has been revised to address this comment.</p>
<p>BE 90</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</p>	<p>Attachment 11, Enclosure D and and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts) have been revised to address specific hiking trails crossed by the Project, whether they are associated with aquatic resources/obstructions/encroachments, and impacts</p>

	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 organizations regarding coordination of the closure. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5)]	including impact avoidance/minimization measures during construction.
BE 91	Revise section A.9 of Enclosure D of the Environmental Assessment to discuss and identify impacts to preserved farms and/or farms with agriculture preservation easements or restrictions. Discuss how the minimization measures would affect preserved farms and how they will be affected, such as not being able to replant an orchard or vineyard. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), 105.14(b)(4), Environmental Assessment Form Instructions]	Impacts of the Project, which includes an evaluation of water resource impacts, on these designations are provided in Attachment 11, Enclosure D and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts).
BE 92	Enclosure C of the Environmental Assessment mentions that the project crosses the French 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), 105.14(b)(5), 105.15(a)]	Enclosure D of Attachment 11 and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts) have been revised to address the Project's potential impacts on the French 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. The correspondence with the USFWS and the Migratory Bird Conservation Plan are included in Attachment 6, Tab 6B.
BE 93	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	Enclosure D and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts) have been revised to address the comment and discuss the commitments implementing the avoidance and minimization measures. All clearances and

	are being worked on. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.21(a)(1)]	conservation plans for threatened and endangered species on the Project have been received from the regulating agencies. The final avoidance and minimization commitments are detailed in the Project Description as well as within the PNDI documents presented in Attachment 6.
BE 94	Enclosure C of the Environmental Assessment identifies Biological Diversity Areas and Landscape Conservation Areas within the project area; however, Enclosure D does not discuss potential impacts to these areas. 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)]	Enclosure D and Attachment 11, Enclosure E, Part 2 (Resource Identification and Project Impacts) have been revised to discuss potential impacts to Biological Diversity Areas and Landscape Conservation Areas in Berks County.
BE 95	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.
BE 96	Based on the information in the application, it is apparent that wetland functions and values are present in multiple wetlands which have not been identified in the functions and values assessments and descriptions table (ex. wildlife habitat, groundwater discharge/recharge, flood flow alteration, and nutrient removal). Based on the information provided, the functions and values have been applied inconsistently across the wetlands. Re-evaluate and revise the functions and values assessments and descriptions for all wetlands. [25 Pa. Code §§105.13(e)(2),	Functions and values have been evaluated consistently throughout all wetlands within the Project area and all applicable functions and values at each wetland have been identified. An updated function and values assessment is included in Attachment 11, Enclosure C.

	105.13(e)(3), 105.14(b)(13), 105.15(a), 105.18a(a)(1), 105.18a(b)(1)]	
BE 97	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 Berks County, there will be no permanent vegetative cover class changes as a result of the Project.
BE 98	Section B.2.a of Enclosure D of the Environmental Assessment states the natural drainage patterns of the wetlands and small or headwater streams will be maintained. However, no information has been provided including detailed contours or cross sections depicting the drainage patterns, cross section, or what the drainage patterns are in the wetlands in their existing conditions. Explain how the final "restored" wetland elevations and natural drainage patterns of wetlands and streams will be determined. [25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.15(a), 105.18a(a) 105.18a(b)]	Site Specific Plans located in Attachment 7, Tab 7D have been revised to address complex aquatic resource crossings. 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. The E&S Sheets depict contours.
BE 99	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	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

	hydrology for each wetland where an impact may occur. [25 PA Code §§105.13(e)(1)(ix) & 105.18a]	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.
BE 100	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 proposed HDD crossings of Exceptional Value and High Quality Streams, Class A Wild Trout waters, streams and wetlands which are inhabited by threatened or endangered species, streams and wetlands where inadvertent returns have previously occurred, crossings of streams and wetlands adjacent to or located along public water supplies, and streams with karst geology. 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 IR Plan provided in Attachment 12, Tab 12C includes an IR risk assessment for each of the HDDs.
BE 100.a	Provide information/details on previous HDD activities on the prior Mariner East pipeline project where IRs occurred. At a minimum this should include, a topographic map with locations and 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.	An HDD Risk Assessment is included as part of the revised Inadvertent Return Assessment, Prevention, Preparedness and Contingency Plan (IR Plan) provided in Attachment 12C. The assessment discusses previous inadvertent returns (IR) and provides the data and analysis requested.

BE 100.b	<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>Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan: the Water Supply Assessment, Preparedness Prevention and Contingency Plan, the IR Plan, and Void Mitigation Plan for Karst Terrain and Underground Mining. These supplemental plans are provided in Attachment 12. The Water Supply Plan provides for the assessment of the existing public and private water supplies in or along the Project, as well as identifies prevention and preparedness measures to be implemented to protect those supplies. The IR Plan outlines the preconstruction activities implemented to ensure sound geological features are included in the drill profile, the measures to prevent impact, and the preparedness plan if an impact were to occur. These plans are provided in Attachment 12.</p>
BE 101	<p>Wetlands are located in mapped soils with shallow bedrock and restrictive soil layers (i.e. fragipans), and the application's data sheets and functions and values assessment identifies shallow rock layers, shallow bedrock, and/or restrictive soil layers are present. Also, based on the functions and values descriptions wetlands may contain groundwater discharges, such as springs or may be concave and not connected to groundwater.</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 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</p>

		<p>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 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,</p>
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		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.
BE 101.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 in Attachment 11, Enclosure C.
BE 101.b	Identify and provide a discussion on any potential permanent impacts to wetland hydrology from excavation or alteration from construction of the proposed project. Provide a plan, plan sheets, cross sections, and other details which demonstrate that impacts to the wetlands' hydrology from alteration of restrictive layers have been avoided and minimized. [25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	See response to comment 101.
BE 102	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),	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 provides an analysis of Chapter 105 antidegradation requirements related to forested riparian buffer impacts along watercourses crossed by the Project.

	105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14)]	
BE 102.a	In general, the Department recommends evaluating the riparian areas from the top of bank landward 100ft, and if the area utilized is less than 100ft justification should be given as to why. [25 Pa. 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]	Riparian areas have been evaluated for each stream 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 and Attachment 11, Enclosure E, Part 5.
BE 102.b	To avoid and minimize the impacts to the watercourses, provide a plan to replace the vegetation lost in both permanent and temporary ROW and workspaces. Alternatively, where it cannot be replaced and provided protection from clearing during the proposed project's operation and maintenance, provide an explanation as to why it cannot be replaced. [25 Pa. Code §§105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14), 105.1, 105.14(b)(7)]	Except at above ground facilities including valve and pump stations, all previously vegetated temporary and permanent workspaces are restored to a vegetated state in accordance with the E&S Plan provided in Attachment 12. Also the BMPs for restoring and maintenance of these areas are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures found in Attachment 11, Enclosure E, Part 4 as well as Attachment 11, Enclosure E, Part 2.
BE 102.c	Revise the application plan drawings and project description to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is proposed as part of the proposed projects' construction, operation, and maintenance. Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas.

		<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>
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		<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>
<p>BE 103</p>	<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>
<p>BE 104</p>	<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</p>	<p>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</p>

	<p>construction or during operation and maintenance of the proposed pipelines. However, it is unclear on the plan drawings and in the application narrative precisely if vegetation cutting, clearing, removal, or grubbing is or is not part of the proposed construction, operation, and maintenance. Where Horizontal Directional Drill (HDD) and Bore crossings of resources are 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>Attachment 7, Tab 7A have been revised to more clearly depict 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, or projecting into a</p>
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		<p>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.</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>
BE 104.a	Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as “Permanent Access Road,” “Permanent ROW,” “Temporary ROW,” and “Additional Temporary Workspace” and the aerial site plans located in Attachment 7, Tab 7A to more clearly depict 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>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.</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>BE 104.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>See response to BE 104.a.</p>
<p>BE 104.c</p>	<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 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),</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 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</p>

	105.14(b)(14), 105.14(b)(11), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]	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).
BE 105	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.
BE 105.a	Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	See response to BE 104.a
BE 105.b	Revise the plan drawings to clearly indicate all locations where maintenance clearing, cutting, removal, or other alternation is not part of proposed maintenance activities.[25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(i), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	See response to BE 104.a

BE 105.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 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), I05.13(e)(1)(ix), 105.18a(a), 105.18a(b)]</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 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>
BE 106	<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>
BE 106.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>

BE 106.b	Based on the Mitigation Plan, PSS wetlands are acceptable in the permanent ROW. Therefore, if replanting of PFO wetlands in the permanent or temporary ROW is not possible, revise the mitigation plan to replant converted PFO wetlands in the ROW with shrubs. [25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	PFO areas located in the Permanent ROW will be seeded and restored to emergent vegetation to facilitate operation/maintenance of the pipelines. However, if the area reverts to scrub-shrub vegetation naturally the plants/shrubs will not be removed due to the wetland designation.
BE 106.c	The application does not evaluate the cumulative conversion of PFO wetlands for the entire project. The applications for Blair, Huntingdon, Juniata, Perry, Cumberland, York, Dauphin, Lebanon, Lancaster, and Berks Counties within the Department's Southcentral Region propose a conversion on approximately 0.528 acre of PFO wetlands. Based on the Department's review of the impacts for PFO wetlands, compensatory mitigation is required to offset the identified PFO functional impacts of conversion to PSS. Revise the application to assess the impact to the effected forested wetlands, evaluate the cumulative effect on all counties of the proposed project, and provide compensatory replacement for the lost functions and values. [25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(viii), 105.14(b)(4), 105.14(b)(12), I05.14(b)(13), 105.14(b)(14), 105.15(a), 105.18a(a), 105.18a(b), 105.20a(a)(2)]	A stand-alone Alternatives Analysis document, which evaluates the cumulative conversion of PFO wetlands for the entire project, has been added to the application materials and is located in Attachment 11, Enclosure E, Part 3. The stand-alone compensatory mitigation plan has been revised and is located in Attachment 11, Enclosure F.
BE 107	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	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.

	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]	
BE 108	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.
BE 109	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 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)]	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 restoration, as well as invasive species control, monitoring, and reporting. The E&S Plans have been revised accordingly.
BE 110	The HDD list at the end of the Inadvertent Return Contingency Plan in the Mitigation Plan identifies HDD crossings with notes as "Drive Through — Travel Only" which are not identified on the plan drawings or applications as being "Drive Through — Travel Only". Revise this information to be accurate	The table in the IR Plan has been updated to contain this information. The revised plan is provided in Attachment 12, Tab 12C.

	and consistent with the rest of the application. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(i), 105.13(e)(1)(iii)]	
BE 111	The application contains HDD Inadvertent Return Contingency Plans in multiple sections of the application, such as the Mitigation Plan and different species conservation plans. However, the Contingency Plans are not all consistent in terms of agency notifications, and the PAFBC Law Enforcement is not identified as being notified as required in the PAFBC PNDI clearance letter. Also, the HDD table is not included in all versions of the Contingency Plan. Revise the HDD Inadvertent Return Contingency Plans to all be consistent, include the appropriate jurisdictional agencies, and provide documentation that revised plans have been sent to all jurisdictional agencies. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.14(b)(4)]	The contingency plan has been revised and re-titled to be Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plan (IR Plan). PFBC Law Enforcement has been identified as an agency to be noticed in the event of an inadvertent return. 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.
BE 112	The Alternatives Analysis states that the Alternatives Analysis is meant to be a summary of major actions taken to avoid/minimize impacts. The Alternatives Analysis must be a detailed analysis of alternatives, including alternative locations, routings, or designs to avoid or minimize adverse impacts and document and provide evidence that there is no practicable alternative which would not involve a wetland or that would have less adverse impact on a wetland. In addition, for the project to be water dependent as stated in the Alternatives Analysis, it must be based on the demonstrated unavailability of any alternative route location, or design or use of location, route or design to avoid or minimize adverse impacts. Revise the Alternatives Analysis to provide a detailed analysis of	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>alternative routings, locations, and designs to avoid and minimize impacts and provide detailed documentation and evidence that there are not practicable alternatives which would further avoid and minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)(2), 105.18a(a)(3), 105.18a(b)(2), 105.18a(b)(3)] In addition, address the following specific comments regarding the Alternatives Analysis:</p>	
BE 112.a	<p>The Alternatives Analysis states that the proposed project was co-located with an existing pipeline for the majority of the route. However, multiple deviations away from the existing Sunoco pipeline occur within Berks County and no information, details, or documentation on why the route deviated away from the existing ROW was given, or on alternate route selection to avoid and minimize impacts. Provide a detailed alternatives analysis which contains evidence and documentation on potential and avoided impacts for the existing alignment, proposed alignment, and other potential route alignments which documents that impacts cannot be further avoided and minimized. The following route alignments in Berks County have been identified which deviate widely from the existing Sunoco ROW: The area between S-B50 and S-C30, the area between S-C32 and S-B31, the area from S-H20, to wetland W35. [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>
BE 112.b	<p>Revise the Alternatives Analysis to discuss, evaluate, and provide a detailed analysis on alternative routes to avoid and minimize impacts to High Quality Streams and watersheds. [25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii)]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

BE 112.c	Revise your alternatives analysis to discuss routing alternatives that were considered as alternatives to impacts Exceptional Value wetlands. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.d	Some portions of the proposed ROW and pipelines directly abuts the maintenance corridor of the existing Sunoco pipeline; however, in other portions the proposed ROW has partial or near complete overlap with the existing maintenance area and pipeline. No discussion on this is provided in the alternatives analysis, and it appears that more overlap of the proposed ROW and the existing Sunoco Maintenance corridor is practicable and would further avoid and minimize impacts. Revise the application accordingly to avoid and minimize impacts by locating the proposed ROW with overlap of the existing maintenance corridor, or provide a detailed analysis and discussion with specific details explaining why this overlap is present in some areas and not others, and why the proposed ROW cannot further overlap. [25 Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii), 105.18a(a), 105.18a(b)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.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 avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	As demonstrated in the Alternatives Analysis, the Project has been designed to avoid and minimize impacts to wetlands and waterbodies (including streams and floodways of streams) to the extent feasible. SPLP has narrowed the Project ROW from 75 to 50 feet at resource crossings, and therefore necessarily relocated temporary workspace (including Temporary ROW and ATWSs) adjacent to streams (and/or floodways) in order to install the pipeline effectively and to restore disturbed workspace as efficiently as possible.

		Furthermore, the Project would implement E&S controls during construction and primary and secondary impacts at these workspaces would be temporary in nature and restored to existing conditions. Please refer to Attachment 11, Enclosure E, Part 2, Project Impacts for additional discussion.
BE 112.f	It appears, but is not described in the application, that HDD was assumed by the applicant to be the crossing method presenting the least potential impact to water resources and aquatic species. Revise the alternatives analysis to provide justification for the selection of which water resource (streams and wetlands) crossings will be made by HDD. [25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3), 105.13(e)(1)(viii)]	A stand-alone Alternatives Analysis document, which presents the justification for the selected wetland and stream crossings that will be made by HDD, has been added to the application materials and is located in Attachment 11, Enclosure E, Part 3. The Alternatives Analysis includes and incorporates relevant information by reference presented in a stand-alone trenchless feasibility assessment, which is located in Attachment 11, Enclosure E, Part 3, Appendix C.
BE 112.g	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.
BE 112.h	It appears that impacts to wetland A49 and stream S-A73 could be avoided and minimized by re-locating the alignment to the North. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	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(a)]	
BE 112.i	It appears that relocating the proposed pipelines' alignment North of wetland B24 could avoid and minimize impacts to the wetland and stream S-B25, that the forest may already be sparse in this area, and no residences appear to be in close proximity. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. This should include specific details and quantification which documents that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.j	It appears that impacts to wetland B42 could be avoided and minimized by locating the proposed pipelines to overlap more with the existing Sunoco Pipeline Maintenance Corridor. The alternatives analysis does not discuss this alternative. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

BE 112.k	It appears that relocating the proposed pipelines' alignment North of wetland B43 could avoid and minimize impacts to the wetland and stream S-B48 and that no streams or wetlands are identified in this area. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. This should include specific details and quantification which documents that other routes and designs would not further avoid or minimize impacts. It is unclear why it is practicable to clear forest in some route deviations of the existing pipeline but not others. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.l	It appears that relocating the proposed pipelines' alignment North of wetland B44 could avoid and minimize impacts to the wetland and that no wetlands would be impacted and the same amount of area of stream would be impacted. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. This should include specific details and quantification which documents that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.m	It appears that relocating the proposed pipelines' alignment South of wetland B49 to overlap the existing	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	<p>pipeline maintenance area of be South of it could avoid impacts to the wetland and minimize disturbance of forested areas. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. This should include specific details and quantification which documents that other routes and designs would not further avoid or minimize impacts. It is unclear why it is practicable to clear forest in some route deviations of the existing pipeline but not others. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]</p>	
BE 112.n	<p>It appears that continuing the proposed auger bore to bore beneath stream S-C33 and wetland C23 in their entirety would 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(a)]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
BE 112.o	<p>It appears that locating the proposed pipelines to the East would avoid impacts to stream S-B43. 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</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

	minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	
BE 112.p	It appears that locating the proposed pipelines between wetlands B40 and J67, or East or West of these wetlands could avoid impacts to them. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.q	It appears that locating the proposed ROW and pipelines slightly more to the East could avoid impacts to wetland W48. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.r	It appears that impacts to wetland AM2 can be further minimized by removing the proposed temporary ROW and associated impacts from 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

BE 112.s	It appears that impacts to wetland W35 can be further minimized by removing the proposed temporary ROW and associated impacts from the wetland and from extending the auger bore to bore the pipelines completely underneath wetland W35. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.t	The alternatives analysis states in the discussion for wetlands AM2 and C6 that alternate routes contains landowner constraints, but does not discuss what these are. In addition, other portions of the proposed pipeline contain large deviations from the existing pipeline, beyond what is examined in the analysis for these wetlands. Revise the alternatives analysis to identify the specific landowner constraints mentioned. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis which documents and provides evidence that alternative routes around this wetland complex area would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	Wetland C6 is proposed to be crossed using conventional auger boring (CAB) methods. Therefore, there will be no disturbance to this wetland and impacts to the wetland will be avoided. The wetland acreage impacts that are listed in the wetland impacts table (Attachment 11, Tables 2 and 3), represents calculations of the pipe width multiplied by the length of the crossing under the wetland per DEP's guidance, and not actual disturbance. Wetland AM2 is addressed in the Alternatives Analysis in Attachment 11, Enclosure E, Part 3.
BE 112.u	It appears that shifting the proposed ROW and pipelines to the northeast of the existing pipeline and maintenance corridor between wetland C1 and K26 could avoid and minimize impacts to streams S-C1 and S-C2 and wetlands C1 and C2 and cross stream S-C1 in a more perpendicular fashion. Revise the application	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	<p>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(a)]</p>	
BE 112.v	<p>It appears that impacts to wetland B32 could be avoided by continuing the auger bore to fully pass underneath wetland B32. 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(a)]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
BE 112.w	<p>It appears that impacts to wetlands B27, B28, B29, B30, B31, and W302 and streams S-B27, S-B28, and S-B29 could be minimized by utilizing trenchless technology such as HDD or micro-tunneling or avoided through alternate routes 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(a)]</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>
BE 112.x	<p>It appears that locating the proposed ROW and pipelines northeast of the existing pipeline and maintenance corridor would avoid and minimize</p>	<p>The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.</p>

	impacts to wetlands H25, H26, and H23 and to streams S-H23, S-H22. In this location it appears that the wetlands would be avoided and stream S-H22 would be avoided. 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 either avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	
BE 112.y	It appears the impacts to stream S-B30 could be minimized by locating the auger bore pit a sufficient distance away from the stream to not open cut it and avoid impacts to its hydrology. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.z	It appears that impacts and secondary impacts could be avoided and minimized by locating the proposed temporary ROW and AWS which surround stream S-H21 to the South and East. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.aa	It appears that impacts to wetland H21 and stream S-H16 can be avoided by locating the proposed pipelines	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	and ROW the Northeast or Southwest. 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(a)]	
BE 112.bb	The proposed pipelines and ROW deviates from the existing ROW from west of stream S-Q90 to just west of wetland W35. However, this will result in new reaches of stream and forest clearing. Revise the alternatives analysis to discuss and analyze alternative routes to avoid and minimize impacts to streams and wetlands, including but not limited to paralleling and overlapping the existing pipeline and maintenance corridor and use of trenchless technology to maintain riparian habitat.. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.cc	It appears that impacts to wetland Q80 could be avoided by locating the proposed pipelines and ROW 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.	Wetland Q80 is proposed to be crossed using conventional auger boring (CAB) methods. Therefore, there will be no disturbance to this wetland and impacts to the wetland will be avoided. The wetland acreage impacts that are listed in the wetland impacts table (Attachment 11, Table 2), represents calculations of the pipe width multiplied by the length of the crossing

	[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)]	under the wetland per DEP's guidance, and not actual disturbance.
BE 112.dd	It appears that impacts to wetland W35 and stream S-Q62 could be avoided by locating the proposed pipelines and ROW South and outside of wetland W35. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.ee	It appears that impacts to wetland BA10 could be minimized by extending the HDD to install the pipes by HDD underneath this 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
BE 112.ff	It appears that impacts to wetland A45 could be avoided by locating the proposed pipelines and ROW Southwest of wetland A45. 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(a)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

BE 113	<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. SPLP previously submitted a final request for determination letter from USFWS, PFBC, DCNR and PGC where the project was described consistent with the attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Clearances from all four agencies have been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9 and details provided in Attachment 6, Tab 6B.</p> <p>With respect to the PHMC, 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</p>
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		<p>Attachment 4. See also Pennsylvania History Code §508(a)(4). Accordingly, SPLP requests that DEP continue its review of SPLP's applications. SPLP will continue to work with the PHMC to ensure that impacts to cultural resources are avoided where possible. In addition, SPLP has included with its Chapter 102 application a Cultural Resources Unanticipated Discovery Plan to be implemented during construction that outlines the protocols SPLP will follow if SPLP unexpectedly encounters archaeological or historic resources, including notification to DEP and PHMC and cessation of earth disturbance.</p>
BE 114	<p>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)</p>	<p>To ensure contractor compliance, SPLP has developed a state-of-the-art web-based mapping applications that is required to be used by the contractor to determine all special environmental restrictions such as PNDI and trout stream restrictions. All of the restrictions and avoidance measures committed to and approved by PNDI agencies are included in the Project Description within a summary table and within the PNDI agency final determination letters and accepted Conservation Plans included in Attachment 6, Tab B. The same notes in the Project Description are reflected within the E&S Plan notes. Trout stream restrictions and other sensitive species restrictions are also noted on aerial site plans and E&S Plans, however due to the sensitive nature of the some of the information not all is depicted. SPLP will implement a comprehensive Environmental Training and Inspection program designed specifically to ensure contractors are</p>

		appropriate notified and are adhering to such restrictions.
BE 115	There appears to be a sizeable impoundment that may be regulated by dam safety. Waiting to hear back from Dam Safety	Comment acknowledged.

Berks County

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

Sincerely,
Tetra Tech, Inc.

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.