

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 E34-136

**Technical Deficiency Response** Chapter 105 Dam Safety and Waterway Management Joint Permit Application

Sunoco Pipeline L.P. – Pennsylvania Pipeline Project (Mariner East II)

Lack Township, Juniata 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 above-referenced Chapter 105 Joint Permit Application (Joint Permit Application) for the Pennsylvania Pipeline Project (Project or PPP as defined in the application). SPLP has had minor revisions to the proposed workspaces since submittal of the original application. These revisions have occurred as result of preparing a response to these technical deficiencies, landowner requests, further reduction of impacts to aquatic resources, or minor limit of disturbance (LOD) changes to facilitate construction. The supporting attachments represent a revision of the Joint Permit Application that not only addresses the DEP's technical deficiencies, but also provides revised sections that reflect the most current Project areas. The attachment includes all necessary components of a complete application; however, it excludes previously submitted aquatic resource reports. Please consider the previously submitted aquatic resource reports as part of this application revision. We are providing two hard copies and three CDs of the revised application.

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

Comments and Responses to September 6, 2016 Technical Deficiency Letter

	ponses to september 0, 2010 Technical Deficiency L	
JU 1.	Comprehensive Environmental Evaluation - The	NA – Heading
	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:	
JU 1.a.	Use the Environmental Assessment Form (3150-	A Comprehensive Evaluation of Compliance and an
	PM- BWEW0017, 2/2013) as a guide and provide a	evaluation of Resources Identification and Project Impacts
	detailed narrative and other appropriate	for the Project as a whole have been added to the
	documentation that comprehensively evaluates the	application materials and is located in Attachment 11,
	project as a whole under each of the categories	Parts 1 and 2. This Comprehensive Evaluation of
	therein (Part 1 – Resource Identification; Part 2 –	Compliance references application materials that apply to
	Project Description – including all the analyses	each requirement pursuant to 25 Pa. Code § 105.18a and
	listed in the form, as well as in 25 Pa. Code §§	associated referenced regulations, including 25 Pa. Code
	105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25 Pa.	§§ 105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25 Pa.
	Code § 105.15.	Code § 105.15.
JU 1.b.	The Comprehensive Environmental Evaluation	A Comprehensive Evaluation of Compliance for the entire
	should also provide a detailed narrative and other	Project has been added to the application materials and is
	appropriate documentation that comprehensively	located in Attachment 11, Enclosure E, Part 1. This
	evaluates the project as a whole for compliance	Comprehensive Evaluation of Compliance references
	with the requirements associated with the	application materials that apply to each requirement
	Department's review of the application listed in 25	pursuant to 25 Pa. Code § 105.18a and associated
	Pa. Code § 105.14 in its entirety, with particular	referenced regulations, including 25 Pa. Code § 105.14.
	emphasis on:	

JU 1.b.i	Antidegration Analysis - Prepare and submit an	An Antidegradation Analysis consistent with 25 Pa. Code
	analysis and information that addresses consistency	§ 105.14(b)(11) has been prepared and is provided in
	with State antidegradation requirements contained	Attachment 11, Enclosure E, Part 5.
	in Chapters 93, 95 and 102 (relating to water	
	quality standards; wastewater treatment	
	requirements; and erosion and sediment control)	
	and the Clean Water Act (33 U.S.C.A. § § 1251—	
	1376) for this entire project and other potential or	
	existing projects. 25 Pa. Code § 105.14(b)(11).	
JU 1.b.ii	Secondary Impact Analysis – Prepare and submit	A secondary impact analysis consistent with 25 Pa. Code
	an analysis and information that addresses	§ 105.14(b)(12) has been prepared and is provided as part
	secondary impacts associated with but not the	of the Resource Identification and Project Impacts in
	direct result of the construction or substantial	Attachment 11, Enclosure E, Part 2.
	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)].	

JU 1.b.iii	Project Wide Cumulative Impacts Analysis.	A stand-alone Cumulative Impacts Analysis has been
	Prepare and submit an analysis and information that	added to the application materials and is located in
	addresses the cumulative impact for this entire	Attachment 11, Enclosure E, Part 6.
	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].	
JU 1.b.iv	Comprehensive Evaluation of Compliance with 25	A Comprehensive Evaluation of Compliance for the
	Pa. Code § 105.18a. Prepare and submit an	Project has been added to the application materials and is
	analysis and information that evaluates the project	located in Attachment 11, Enclosure E, Part 1. This
	as a whole with all the requirements found in 25 Pa.	Comprehensive Evaluation of Compliance cross-
	Code § 105.18a for each wetland or wetland	references the application materials that address each
	complex in or along the project area as a whole.	requirement in 25 Pa. Code § 105.18a.
	[25 Pa. Code § 105.18a].	

JU 1.b.v	Comprehensive Alternatives Analysis, Avoidance and Minimization and Mitigation. The applicant needs to demonstrate, that the alternative/s chosen for the entire project will avoid cumulative impacts to the maximum extent practicable, and where such impacts are not avoidable, describe in detail with appropriate supporting documentation, how such impacts will be minimized and mitigated to the satisfaction of the Department. [25 Pa Code §§ 105.1, 105.13(e)(1)(viii)-(x); 105.14(b); and 105.15-105.20a]	A comprehensive Alternatives Analysis has been added to the application materials to address this comment and is located in Attachment 11, Enclosure E, Part 3. A Cumulative Impacts Analysis has been added to the application materials to address this comment and is located in Attachment 11, Enclosure E, Part 6. An Impact Avoidance, Minimization, and Mitigation Procedures document has also been added to address this comment, located in Attchment 11, Enclosure E, Part 4.
JU 2.	The HDD Inadvertent Return Contingency Plan includes profiles identifying Geotechnical profiles; however, no analysis has been provided on the risk of an inadvertent return occurring. Provide an analysis on the risk of an inadvertent return occurring for all proposed HDD crossings. Include in-depth detail, discussion, and data in the analysis of the risk of a return occurring. [25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(b)(4), 105.18a(b)(5), 105.14(b)(4), 105.14(b)(11)]	The revised Inadvertent Return Assessment, Prevention, Preparedness and Contingency Plan (IR Plan) provided in Attachment 12, Tab 12C includes an IR risk assessment for each of the Horizontal Directional Drills (HDDs).
JU 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 IR Plan provided in Attachment 12C. The assessment discusses previous inadvertent returns (IR) and provides the data and analysis requested.

JU 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 idenitifies prevention and preparedness measures to be implemented to protect those supplies. The IR Plan outlines the preconstruction activities implemented to ensure competent geological features are
		included in the drill profile, the measures to prevent impact, and the preparedness plan if an impact were to occur. These plans are provided in Attachment 12.
JU 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.

JU 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.
JU 5.	List the types and amounts of emissions to satisfy question 13.0.1 of the General Information Form. [1300-PM-BIT0001 5/2012 Instructions]	Question 13.0.1 of the General Information Form (GIF) in Attachment 1 has been revised to address this comment. The overall Project will involve operational emissions, but no operational emissions will be emitted in Juniata County.
JU 6.	The Application and GIF have different titles for M.L. Gordon. An application shall be signed by the owners of the dam or reservoir, water obstruction or encroachment, or the persons exercising primary responsibility for the dam or reservoir, water obstruction or encroachment. In the case of a partnership, one or more members of the partnership authorized to sign on behalf of the entire partnership shall sign the application. In the case of a corporation, it shall be signed by the president, vice president or other responsible official empowered to sign for the corporation. Provide consistent titles for Mr. Gordon and demonstrate that he is authorized to sign the Application. [25 Pa. Code §§105.13(i) and 25 Pa. Code §§106.12(f)]	The Application has been revised to provide a consistent title for M.L. Gordon. A "Delegation of Authority" letter authorizing Mr. Gordon to sign the Application on behalf of the partnership is provided with the Joint Application Form in the Application.

JU 7.	Provide a PNDI search clearance letter from the	The Pennsylvania Game Commission (PGC) provided
	Pennsylvania Game Commission for threatened and endangered species under their jurisdiction. [25 Pa.	clearance by letter dated June 8, 2016. A copy of this letter is provided in Attachment 6.
	Code §\$105.15(a), 105.14(b)(4), 105.16(c)(3)]	letter is provided in Attachment 6.
JU 8.	Provide clearance or approval from the	While DEP is required to consider potential impacts to
	Pennsylvania Historical and Museum Commission	historic resources under 25 Pa. Code Chapter 105 when
	(PHMC) for cultural, archeological, and historic	DEP conducts reviews of a water obstruction,
	resources for the proposed water obstructions and	encroachment or dam permit application, none of the
	encroachments and areas necessary to construct the	regulations or guidance referenced in DEP's comment
	water obstructions and encroachments. [25 Pa.	require SPLP to provide clearance or approval from the
	Code $\S105.13(e)(1)(x)$ , $105.14(b)(5)$ , $105.15(a)$ ,	PHMC as part of a Chapter 102 or Chapter 105 permit
	105.14(b)(4)]	application. Furthermore, as noted in a letter from
		Alexandra C. Chiaruttini, Esq., DEP's Chief Counsel
		concerning the SPLP Pennsylvania Pipeline Project, "the
		[Pennsylvania] History Code does not authorize our
		agency or any Commonwealth agency to stop the
		processing of permits solely due to possible or actual
		presence of archaeological or historic resources, unless
		the agency's enabling legislation contains specific
		statutory authorization for such action. DEP does not
		have such authorization here." A copy of the February 1,
		2016, letter from Ms. Chiaruttini is provided in
		Attachment 4. See also Pennsylvania History Code
		§508(a)(4). Accordingly, SPLP requests that DEP
		continue its review of SPLP's applications.
		SPLP will continue to work with the PHMC to ensure that
		impacts to cultural resources are avoided where possible.
		In addition, SPLP has included with its Chapter 102
		application a Cultural Resources Unanticipated Discovery
		Plan to be implemented during construction that outlines
		the protocols SPLP will follow if SPLP unexpectedly
		encounters archaeological or historic resources, including

		notification to DEP and PHMC and cessation of earth disturbance.
JU 9.	The project description provided in the Cultural Resource Notice states that the second pipeline is to be installed within 5 years of the first pipeline. The project description provided in the application does not discuss this timeframe. Regarding this item: Revise the application to discuss if the pipelines will be installed at the same time, or on different schedules. [25 Pa. Code §§105.13(e)(1)(iii)(A), 105.13(e)(1)(iii)(B), 105.301(7), 105.15(a), 105.14(b)(4), 105.18a, 105.21(a)(1), 105.13(e)(1)(ix)]	The Project Description in Attachment 9 to the Application has been updated to reflect the timing of the installation of the 20-inch and the 16-inch pipeline. The two pipelines will be installed during the same time period. The 20-inch pipeline would be installed first, followed by the 16-inch line. For safety purposes, the installation would be staggered by what is estimated to be no more than 60 days. At some HDDs with longer drills, however, the time period between installation of the two pipelines may exceed 60 days. Both pipelines will be installed within the same limit of disturbance so there would be no additional, temporary disturbance resulting from a second separate installation. Any temporary stabilization required would be implemented in accordance with Project's E&S Plans.
JU 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.
JU 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.

JU 9.c.	You may need to revise you fee calculation spreadsheets to account for the additional, temporary disturbance resulting from a second, separate installation.	The 20-inch pipeline would be installed first, followed by the 16-inch line. Any temporary stabilization required would be implemented in accordance with the Project's E&S Plans. Both pipelines will be installed within the same limit of disturbance as set forth in the permit application, so there will be no "additional, temporary disturbance resulting from a second separate installation." Therefore, no revision of the fee calculation spreadsheet is necessary.
JU 9.d.	Your Erosion and Sedimentation Control Permit Application (ESG 05 000 15 001) should also reflect the two construction sequences if two separate construction periods are proposed.	The 20-inch pipeline would be installed first, followed by the 16-inch line. Any temporary stabilization required would be implemented in accordance with the Project's E&S Plans. Both pipelines will be installed within the same limit of disturbance and in the same construction period.
JU 10.	Provide a detail that shows how flumes or other instream 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.
JU 11.	Provide site plans that depict proposed work for each ATWS within a floodway or floodplain.  These plans should include at a minimum the duration of proposed activities, the expected layout, E&S controls, and size or quantity of materials or structures proposed. [25 Pa. Code §105.13(e)(1)(i)(C)]	The E&S Plan in Attachment 12 has been revised to identify the proposed work. The associated erosion and sediment controls used to minimize the potential for discharge of fill material to the stream are provided on the plan drawings and/or as referenced to the E&S plan standard typical details. The duration of ATWS use will be consistent with the duration of construction.

A number of drawings in the package, for example	The "permitting purposes" language has been removed. All
the auger bore drawings, state that the plans are for	drawings and maps provided in the application are
permitting purposes only. The plans, specifications	considered to be final plans.
and reports in the application are part of a permit	
once a permit is issued and must be followed.	
Remove this language from the plans and provide	
final plans. [25 Pa. Code §§105.13(e), 105.44(a)]	
The auger bore drawings reference cathodic	The Project Description provided in Attachment 9
protection being installed. Provide plans and/or	includes a narrative outlining SPLP's cathodic protection
details for any proposed cathodic protection and	plans. A typical cathodic test station detail has been
identify on the plans where and which type of	added to the E&S Plan Sheets in Attachment 12.
cathodic protection is proposed to be installed. [25	
Pa. Code §§105.3(4), 105.11(a), 105.13(e)(1)(i)(C)]	
Where cathodic protection is proposed to be	The Project Description provided in Attachment 9
installed in wetlands or other areas where	includes an updated narrative outlining SPLP's cathodic
vegetation is proposed to be undisturbed or	protection plans.
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]	
For all Bore and HDD locations, identify where all	To reduce overall impacts to the landscape and, in
pipe pull back, or assembly, or other areas where	particular, wetlands and streams, pullback areas are sited
the pipe will be laid out, and where all construction	within the same workspaces designed for the open cut
and staging areas are located. Identify any	installation of the pipeline to the maximum extent
temporary crossings or impacts for these areas to	practicable. Pullback areas not proposed within the
streams, wetlands, and floodways. Revise the	workspaces needed to install the pipelines via open cut are
application accordingly to include these impacts,	accommodated by adding Additional Temporary
including site-specific plans depicting the impacts	Workspace (ATWS). Although avoided to the maximum
and proposed temporary matting. [25 Pa. Code	extent practicable, if streams and wetlands are crossed by
§§105.13(e)(1)(i), 105.13(e)(1)(iii)]	the pullback activity within the ATWS, then temporary
	crossings or impacts, such as temporary bridges, are
	identified on the site-specific E&S Plan sheets.
	the auger bore drawings, state that the plans are for permitting purposes only. The plans, specifications and reports in the application are part of a permit once a permit is issued and must be followed. Remove this language from the plans and provide final plans. [25 Pa. Code §§105.13(e), 105.44(a)]  The auger bore drawings reference cathodic protection being installed. Provide plans and/or details for any proposed cathodic protection and identify on the plans where and which type of cathodic protection is proposed to be installed. [25 Pa. Code §§105.3(4), 105.11(a), 105.13(e)(1)(i)(C)]  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]  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

		Additional temporary matting and bridges to accommodate the pullback activity including pipe layout and assembly in the open cut areas are also identified on the Aerial Site Plans and E&S Plan sheets. Temporary bridges and matting will be installed and restored in accordance with the standard typical details provided within the E&S Plan in Attachment 12. The impacts of these activities occur within the permanent and temporary workspaces within the LOD.
JU 16.	The site plan sheets and E&S plan sheets identify the floodway which appears to be measured from the centerline of the stream as opposed to measuring from the top of bank for the 50-feet assumed floodway boundary. Provide floodway boundaries on all plan drawings that adhere to the definitions in Chapter 105 by providing the FEMA mapped floodway boundary, in areas absent a FEMA mapped floodway, the floodway boundary measured 50 feet landward from the top of bank, or in areas absent a FEMA mapped floodway a floodway boundary with evidence provided that the assumed 50 feet floodway is not accurate. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.1]	In absence of a FEMA NFHL Floodway, the PA 50-foot floodways have been created by buffering the stream on each side of its centerline by one-half the bank width of the stream at the crossing plus 50 feet. For example, a stream that has a 5-foot bank width would be buffered by 52.5 feet on each side the stream's centerline, to ensure both the bank width and the 50-foot setback from the bank was encapsulated within the Chapter 105 floodway, as per the definitions identified in Chapter 105. FEMA NFHL data was downloaded and re-analyzed for this Project on September 27, 2016. The 105 and 102 E&S Plans have been checked to assure consistent presentation of these areas.
JU 17.	The Typical Wetland Crossing detail on the E&S plans indicates soil will be stockpiled in the wetland along the trench. Revise the detail to include a means of separating the stockpiled soil from the wetlands, such as geo-fabric and matting, to ensure that stockpiled soil will be completely removed and impacts will be minimized. [25 Pa. Code §§105.423, 105.18a(a), 105.18a(b),	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.

	105.15(a), 105.14(b)(4), 105.14(b)(11),	
	105.14(b)(13)]	
JU 18.	The typical wetland crossing details shown on the	The standard typical detail on the E&S plans has been
	E&S plans indicates trench breakers are to be	revised to better detail ditch trench plug installation
	installed in the trench in the wetlands; however it is	(Attachment 12). Additionally, the trench plugs have
	not clear what trench breakers are or whether trench	been moved to the outside of the wetland boundaries and
	plugs are intended. Revise this detail to identify	a note added that additional trench plugs will be installed
	whether trench plugs are intended by this term or	for long open-cut wetland crossings. The project's
	provide a detail for trench breakers. In addition, if	Environmental Compliance Program team will ensure
	trench plugs are proposed to maintain wetland	appropriate spacing.
	hydrology, revise the detail to include trench plugs	
	within the wetland for long wetland crossings and	
	specify the distance increments. Furthermore, the	
	E&S plan drawings depict trench plugs which are	
	inconsistent with the detail. Revise the site plans to	
	be consistent with the detail. [25 Pa Code	
	§105.18a(a)(1) & §105.18a(a)(3) & §105.18a(a)(4)	
	& §105.18a(a)(5) & §105.18a(b)(2) &	
	§105.18a(b)(3) & §105.18a(b)(4) & §105.18a(b)(5)	
	& \$105.15(a)(1) & \$105.14(b)(4) & \$105.14(b)(11)	
	& §105.14(b)(13) & §105.13(e)(1)(i)]	
JU 19.	Installation of the trench plugs as depicted in the	The typical standard trench plug detail provided within
	Trench Plug Detail is likely to result in adverse	the E&S Plan provided in Attachment 12 has been revised
	impacts to the hydrology of waters of the	to show the trench plug continuing to the bottom of the
	Commonwealth. Provide a revised detail showing	trench.
	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)]	

JU 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.
JU 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.
JU 22.	Identify the proposed provisions for shut-off in the event of break or rupture for each crossing. Provide locations and description of how this action will be completed in the event a break or rupture occurs.  [25 Pa. Code § 105.301(9)]	The revised Project Description provided in Attachment 9 discusses block valves, their location, and the siting criteria that provides shutoff provisions. Valves are shut off remotely or manually. Block valves are also depicted on the aerial site plans provided in Attachment 7, Tab 7A.
JU 23.	Provide a letter from Lack Township commenting on the analysis of the project's impact on the floodway delineation and water surface profiles for the areas of the project that occur within a floodway delineated on a FEMA map. [25 Pa. Code §§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 Lack Township. Because the Project does not cross a floodway delineated on a FEMA map, SPLP is not required to provide as part of its Chapter 105 application a response from Lack Township regarding floodplain management consistency. Copies of correspondence with Lack Township are provided in Attachment 14 of this application.

JU 24.	Section F of the Application indicates the	The N/A label has been removed from Section F of the
	professional engineer's seal and certification is	Application.
	N/A. Plans, specifications and reports	
	accompanying applications for any water	
	obstructions or encroachments which would pose a	
	threat to human life or a substantial potential risk to	
	property shall be affixed with seal and signature of	
	a registered professional engineer. The seal and	
	certification for Chapter 105 are provided in Tab 7.	
	Remove the N/A label from Section F. [3150-PM-	
	BWEW0036A Rev. 3/2013 Instructions]	
JU 25.	Provide the letters of approval from Altoona Water	The water suppliers listed in question 16.0.2 of the GIF
	Authority and Huntingdon Area Water and Sewage	are those preliminarily identified as potential temporary
	Authority and update Question 16.0.2 of the GIF.	water suppliers to facilitate hydrostatic testing. The PPC
	[1300-PM-BIT0001 5/2012 Instructions]	Plan in Attachment 12, Tab 12A has been supplemented
		with a Water Supply Plan (Attachment 12, Tab 12B),
		which addresses all correspondence with water and sewer
		authorities, including letters to the Altoona Water
		Authority and Huntingdon Area Water and Sewage
		Authority. The GIF question has been updated, and final
		agreements between the contractor and the water supplier
		can be supplied once they are in place. The Project does
		not require any permanent water supplies.
JU 26.	Regulations 25 Pa. Code Sections 265.51 and	The PPC Plan in Attachment 12, Tab 12A has been
	265.56 listed on page 3 of the PPC Plan do not	revised to remove the reference and cite appropriate
	exist. Correct the PPC Plan to demonstrate proper	regulations where necessary.
	compliance. [25 Pa. Code §§105.21.(a)(1);	
	§91.33(b)]	
JU 27.	Provide a letter from the municipalities	The only Township crossed within Juniata County is Lack
	commenting on the analysis of the project's impact	Township, where there are no FEMA-designated
	on the floodway delineation and water surface	floodways. Accordingly, please see response to comment
	profiles. [25 Pa. Code §§105.13(e)(1)(vi)]	JU 23.

JU 28.

A water obstruction and encroachment permit may be required for the proposed water withdraws and discharges. [25 Pa. Code §§105.3(a)(4), 105.11(a), 105.13(e)(1)(i), 105.13(e)(1)(iii), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(6), 105.301(1), 105.301(7), 105.301(5), 105.301(3), 105.151(1), 105.151(3), 105.161(a)(3), 105.161(4)]

Water withdrawals in Juniata County (i.e., Tuscarora Creek) will use temporary and above-ground equipment. The water withdrawal location is labeled on the Chapter 105 drawings. Additional details, including specific equipment configurations are included in the Chapter 102 E&S drawing details, which are referenced in the Chapter 105 drawings. All encroachments and obstructions (e.g., pump pad) are identified on the Chapter 102 drawings and included within the limit of disturbance.

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 102 E&S drawings which are referenced in the Chapter 105 drawings.

In addition to the information provided in the PAG-10 permit application, all discharge outfall locations are shown on the Chapter 105 drawings and supporting information such as discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings.

JU 28.a.	Provide plans and cross sections indicating pipe size, placement, and locations for all wetlands, streams, floodways and floodplains where the proposed water withdrawal and discharge piping is to be installed.	All discharge outfall locations and temporary withdrawal locations are shown on the Chapter 105 drawings. Supporting information such as typical intake and 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 September 27, 2016, 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.
		Chapter 102 E&S drawing details include site-specific withdrawal cross-section details for the Tuscarora Creek withdrawal location. Chapter 102 E&S drawings are referenced in the Chapter 105 drawings.
		The locations of wetlands, streams, floodways, and floodplains in relation to the outfall locations are captured on the Chapter 102 and 105 drawings.
		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 102 E&S drawings which are referenced in the Chapter 105 drawings.

In addition to the information provided in the PAG-10

		permit application, all discharge outfall locations are shown on the Chapter 105 drawings and supporting information such as discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings.
JU 28.b.	Revise the impact tables to include these impacts.	All encroachments and obstructions for proposed water withdrawal and discharge piping are included within the Project limits of disturbance, and impacts are reflected in Tables 2, 3, and 4 provided in Attachment 11. These tables have been revised to accommodate changes in workspace and requests in other comments received from DEP.

JU 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 obstructions will remain in place.

Tuscarora Creek is the only water withdrawal planned to be used in Juniata County. Water withdrawals from this location will use temporary and above-ground equipment. This water withdrawal location is labeled on the Chapter 105 drawings. Additional details, including specific equipment configurations are included in the Chapter 102 E&S drawing details, which are referenced in the Chapter 105 drawings. All encroachments and obstructions (e.g., pump pad) are identified on the Chapter 102 drawings and included within the limit of disturbance. Water withdrawal activities for Tuscarora Creek are being permitted through the SRBC. The surface water withdrawal docket for this water source is expected in December 2016. A copy of the approved docket will be made available to DEP. Withdrawal rates from Tuscarora Creek will be limited to approved SRBC docket conditions. Tuscarora Creek is expected to be used intermittently over a period of a few months. Equipment will be removed from the floodway when not in use and in the event of flooding. This water source is planned as the source of water to drill and test three HDDs and conduct mainline hydrostatic testing. HDD drilling/testing will be completed weeks to months prior to the mainline hydrostatic testing.

SPLP has obtained the Project's DEP PAG-10 General NPDES Discharge Permits (Authorization ID No. PAG1106869 and PAG1105897) to allow discharge of hydrostatic test waters. The 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

JU 28.d.	Provide cross sections, profiles, and hydraulic analysis for all piping placed in existing stream culverts and along and within stream channels.	information such as typical discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings.  No piping associated with this activity will be placed in existing stream culverts or along/within stream channels in Juniata County.
JU 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.	The Environmental Assessment (see Attachment 11, Enclosures C and D, and also Enclosure E, Part 2 for a Project-wide Resource Identification and Project Impacts) has been updated to capture the impacts of the water obstructions and withdrawals on Tuscarora Creek. The area of the impacts will be contained to the LOD. No impacts are associated with the temporary piping and intake screens for the water withdrawal. SR 3025 will be open cut in order to place temporary piping. This activity is contained within the LOD. A road crossing permit has been obtained through PennDOT.  Water withdrawal activities for Tuscarora Creek are being
		permitted through the SRBC. The surface water withdrawal docket for this water source is expected in December 2016. A copy of the approved docket will be made available to DEP.
JU 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, PFBC, DCNR and PGC where the Project was described consistent with the attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Copies of these final requests have been submitted, and clearances from all four agencies have

been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9. Copies of the submissions are located in Attachment 6.

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.

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 archaeologic or historic resources, including notification to DEP and PHMC and cessation of earth disturbance.
JU 29.	Sheet ES-3.05 shows an aggregate stockpile within the floodway of Stream S-K75 with no associated BMPs. Provide proper measures to minimize the potential for discharge of fill material to the stream. [25 Pa. Code §§105.13(g)]	The ES plan standard typical detail sheet now shows the adequate protection. Contractors are to install the appropriate BMPs when stockpiling anywhere within the LOD.
JU 30.	Indicate the duration each temporary crossing is expected to be in place. [25 Pa. Code §§105.13(1)(iii)(A)]	The Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 has been revised to provide expected durations of the temporary stream and wetland crossings.
JU 31.	The road identified on Sheet 3 of Tab 7A is listed as Berry Ridge Rd; however, Sheet ES-3.05 labels the road as Old Mill Rd. Provide plan sheets with the correct roadway name. [25 Pa. Code §§105.13(e)(1)(i)(B)]	The road is actually named Cross Keys Road and all application documents have been revised accordingly.
JU 32.	The ATWS areas in the floodway of Stream S-K80 on Sheet 2 of Tab 7A are designated for spoil; however a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to the stream. In addition, the Western ATWS is located in the stream; however the impact table does not identify any temporary impacts. Revise the application to remove the ATWS from the stream to avoid and minimize impacts. [25 Pa. Code §§105.13(g), 105.14(b)(7)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection measures to be implemented when spoil is located within floodways, floodplains, or wetlands. Where applicable, standard typical details for stream crossings found within the E&S Plan located in Attachment 12 also depict protection measures for spoil. The ATWS was not located in the stream, but was very close to it. Therefore, the ATWS has been revised to be 10 feet away.

JU 33.	Attachment 14 indicates that the project involves construction of above ground stations and valve settings that will require grading, permanent access roads, and other impermeable surfaces; however, these areas are not shown on the submitted plan sheets. Provide plans that depict all of the proposed work. [25 Pa. Code §§105.13(e)(1)(i)(C)]	In the submitted application and within this revised application, all aboveground facilities are depicted on the aerial site plans located in Attachment 7, Tab 7A. The various workspaces are called out within the site plan legend. Permanent access roads were also differentiated on the aerial site plans from temporary access roads. In addition, the E&S Plan located in Attachment 12 depicts these various workspaces.
JU 34.	Provide a registered professional engineer's seal and signed certification, in accordance with \$106.12(g), which shall read as follows:  "I (name) do hereby certify to the best of my knowledge, information and belief, that the information contained in the accompanying plans, specifications, and reports has been prepared in accordance with accepted professional practice, is true and correct, and is in conformance with Chapter 106 of the rules and regulations of the Department of Environmental Protection."  If the seal/certification is submitted on a separate piece of paper, please have it refer specifically to the project name and application number shown above. Also, the seal shall be affixed on the cover page of the plan sheets. [25 Pa. Code §§106.12(g)]	This signed certification has been added to the Attachment 16 documents.

JU 35.	The bank to bank width for S-K74 in Tab 11 Table	The widths reported on Table 3 of Attachment 11 are
	3 is listed as 90 feet; however, the length of	accurate bank widths at centerline. Widths provided in
	centerline stream crossing is listed as 39 feet. How	the Aquatic Resource reports were estimated. Table 3
	can the HDD width for a perpendicular crossing be	now has a footnote to include this explanation. The
	43% smaller than the stream's width? Furthermore,	attached revised permit application documents reflect the
	the length of pipeline crossing wetted width	accurate bank width at the centerline crossing is consistent
	submitted with the Submerged Lands License	with the impact calculations, and the Submerged Lands
	Agreement is identified as 90 feet. Clarify this	License Agreement (SLLA).
	discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(C)]	
JU 36.	Identify the depth of the proposed pipelines beneath	The pipeline will be buried with a minimum of 5 feet of
	the bottom of the stream beds and wetlands. [25	cover beneath streams and a minimum of 4 feet of cover
	Pa. Code §§105.301(4)]	beneath wetlands. These specifications are provided in
		E&S Plan Notes and Details and within site-specific
		drawings.

JU 37.	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. Sitespecific plans are provided as part of the E&S Plan sheet set for these crossing types and provide bank stabilization BMPs.
JU 38.	The Submerged Lands License Agreement for Tuscarora Creek (S-K74) identifies a 50-foot permanent right-of-way; however, Sheet 3 of Tab 7A only depicts a Permanent Easement. Correct the plan sheets, impacts tables, and fees calculation worksheet to reflect the right-of-way licensed by the SLLA. [25 Pa. Code §§105.13(e)(1)(i)(C)]	The SLLA is an authorization to occupy submerged lands owned by the Commonwealth of Pennsylvania and is independent of the ROW, permanent easement, or size of the pipe. The permanent easement on the Joint Application site plans has been removed so that the Project's temporary and permanent impacts are consistent with the LOD. The LOD identifies the permanent and temporary workspaces necessary for the construction, operation, and maintenance of the Project in waters of the Commonwealth. Valerie Marx at the DEP Bureau of Waterways Engineering and Wetlands has been contacted to determine the course of action for updating the information contained within the SLLA.

JU 39.	The Submerged Lands License Agreement for	The SLLA is an authorization, per linear foot, to occupy
	Tuscarora Creek (S-K74) indicates the crossings	submerged lands owned by the Commonwealth of
	will be two parallel 20-inch lines; however, the	Pennsylvania and is independent of the ROW, permanent
	project description and permit submission indicate	easement, or size of the pipe. Valerie Marx at the DEP
	one 20-inch line and one 16-inch line. Correct the	Bureau of Waterways Engineering and Wetlands has been
	submission to reflect the pipelines licensed by the	contacted to determine the course of action for updating
	SLLA. [25 Pa. Code §§105.13(e)(1)(iii)(A)]	the SLLA with the finalized pipeline sizes.
JU 40.	Streams are given an ordinary high water mark	The widths reported on Table 3 are accurate bank widths
	width that corresponds to the bank width identified	at centerline. Widths provided in the Aquatic Resource
	in the Aquatic Resources Report Appendix C;	reports were estimated. Table 3 now has a footnote to
	however, Stream S-K74 indicates an OHW width	include this explanation.
	of 90 feet and the corresponding stream data sheet	
	has a bank width of 100 feet. Clarify this	
	discrepancy and delineate the stream banks	
	accurately. [25 Pa. Code §§105.13(e)(1)(i)(A)]	
JU 41.	Agency notification should occur when inadvertent	The IR Plan in Attachment 12, Tab 12C has been updated
	returns happen in any water resource, not just bog	and contains a complete contact list of all required agency
	turtle areas. Correct the HDD Inadvertent Return	notifications, should an IR occur.
	Contingency Plan to reflect proper notifications.	
	[25 Pa. Code §§105.14(b)(4)]	
JU 42.	There is no HDD Table located in Attachment A of	The IR Plan has been revised to include the HDD table
	Appendix A Tab 9. [25 Pa. Code §§105.21(a)(1)]	(see Attachment 12, Tab 12C).
JU 43.	There are plan sheets in Tab 7A with streams that	The plans in Attachment 7, Tab 7A provide the
	do not show enough information beyond the	delineation of resources beyond the LOD. Delineations
	temporary right-of-way (ie. Floodway delineation,	were performed on a 200-foot-wide survey corridor.
	stream orientation, and hydrologic connections) to	Reroutes and Project changes were also field-delineated
	properly evaluate the proposed impacts. Provide a	and delineations occurred beyond the Project areas to
	better depiction of the streams outside of the	capture adjacent resources.
	proposed temporary rights of way. [25 Pa. Code	
	§§105.13(e)(1)(i)(A)]	

JU 44.	The site specific drawings reference "Stream Restoration" but no detail or plan for this stream restoration has been provided. Provide a plan for the stream restoration referenced in the site specific drawings. In addition, clarify if this will be utilized at additional stream crossings or not and identify the crossings where it will be utilized. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(i)(C), 105.311(2), 105.15(a)]	The site specific drawings provided within Attachment 7, Tab 7D 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.
JU 45.	The plans indicate that Streams S-L12, S-K70, S-K65, S-K62, S-K63, S-L8, S-L9, K58, S-K57, and S-K56 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. The plans provided for S-K69 and S-K70 in Tab 7D do not adequately depict the existing or proposed conditions upon stream restoration or excavation limits. The E&S plans do not provide sufficient detail on the stream limits, banks, excavation limits, etc. Provide site-specific plans, cross sections, and profiles that adequately depict the existing and proposed conditions, stream bed, stream banks, limits of excavation, and methods for the stream restorations. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.13(e)(1)(i)(G)]	Site-specific drawings have been revised or new site-specific drawings prepared for these crossings and are provided in Attachment 7, Tab 7D 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, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4.
JU 46.	Stream S-K81 on Sheet 2 of Tab 7A lists permanent and temporary impacts, but there are no identifiable impacts. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(C)]	The impacts calculated for stream S-K81 are representative of the impacts to the shared floodway with streams S-L8, S-L9, S-L10, S-L11, S-L12, and S-K80.

JU 47.	Stream S-K75 on Sheet 3 of Tab 7A lists permanent floodway impacts; however, there are no identifiable impacts. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(C)]	The impacts calculated for stream S-K75 are representative of the impacts to the shared floodway with stream S-K74.
JU 48.	Stream S-K74 on Sheet 3 of Tab 7A indicates no temporary impacts; however, the plan sheet depicts temporary right of way within the western portion of the floodway. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(C)]	Table 3 of Attachment 11 and the aerial site plans in Attachment 7, Tab7A have all been revised to accurately reflect all impacts to stream S-K74.
JU 49.	Wetland Q64 is depicted on the plan drawings and impact tables as being impacted; however the E&S plan drawing ES-3.06 appears to delineate wetland Q64 in a different location than the plan drawings and aquatic resource delineation. Revise the application and E&S plan to accurately depict the location and impacts to wetland Q64. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1)]	The Wetland WL-Q64 location and impacts have been updated, E&S plan drawing ES-3.06 is consistent with the aerial site plans in Attachment 7, Tab 7A.
JU 50.	The E&S plan sheet ES-3.06 depicts temporary matting which is different than the site specific plan drawing S-K69-S-K70-C-101. Revise the plans to be accurate and consistent. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	E&S Plan Sheet ES-3.06 has been revised to depict additional temporary matting around streams S-K69 and S-K70.
JU 51.	Table 3 identifies 93 feet of permanent impact to stream S-K58 in the ROW; however, E&S plan ES-3.08 depicts over 100ft of stream S-K58 is within the ROW. Revise the impact table to accurately quantify the area of impact to this stream. [25 Pa. Code 105.15(a), Environmental Assessment Instructions]	All of the application materials have been revised to accurately and consistently reflect the crossing length of this stream.

JU 52.	Provide site specific cross sections for the streams	Additional cross sections are located in Attachment 7, Tab
	and wetlands which depict the existing and	7G for intermittent and perennial stream crossings that do
	proposed conditions of the streams and wetlands,	not have site-specific (Attachment 12), HDD (Attachment
	proposed pipes and depths, and the existing stream	7, Tab 7B), or bore (Attachment 7, Tab 7C) drawings
	bed and banks dimensions. [25 Pa. Code	prepared which contain profile information. All existing
	§§105.13(e)(1)(i)(G), 105.14(b)(4), 105.301(3),	bank and wetland dimensions are provided within the
	105.301(4), 105.301(5)]	aquatic resource tables provided in Attachment 11.
		Typical cross-sectional details provided within the E&S
		Plan Sheets accommodate the lesser and more minor
		stream crossings (e.g., those designated ephemeral). All
		bed and bank and wetland contours are to be restored to
		the existing condition in accordance with the Impact
		Avoidance, Minimization, and Mitigation Procedures
		provided in Attachment 11, Enclosure E, Part 4.
JU 53.	The Mitigation Plan states that the excavated	The bank restoration details have been revised to indicate
	stream banks will be reseeded; however the E&S	that stream banks will be reseeded in accordance with the
	detail for bank restoration does not indicate this.	approved native seed mixtures.
	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)]	

JU 54.	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-K55, S-K56, S-K62, S-K63, S-K72, S-L12, S-L9. 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. 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.
JU 55.	It appears based on the contours that stream S-K73 continues to the North and that the floodway is proposed to be impacted. However, the stream delineation and floodway are not depicted farther to the North. Revise the application to delineate this stream farther downstream in the area and depict the floodway on the plans. Revise the application accordingly to include any additional impacts. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.21(a)(1), 105.15(a)]	The stream delineation has been revised accordingly and the floodways adjusted on the plans and within the application impact calculations.

JU 56.	It appears the road adjacent to stream K-K80 is proposed to be bored. Clarify if the road is proposed to be bored, and identify the bore pits on the plan drawings. It appears impacts to stream S-K80 could be further minimized by incorporating it into the bore. Revise the application to include boring under stream S-K80 and if this is not practicable, revise the alternatives analysis to provide detailed documentation and evidence as to why this is not a practicable alternative to further avoid and minimize impacts. [25 Pa. Code §§105.13(e)(1)(i), 105.14(b)(7)]	The road is not proposed to be bored, therefore, Stream S-K80 will not be incorporated into a road bore. The Alternatives Analysis in Attachment 11, Enclosure E, Part 3, Appendix E has been revised to evaluate the practicability of trenchless crossing to avoid or minimize possible impacts to Stream K-K80.
JU 57.	The application contains HDD Inadvertent Return Contingency Plans in multiple sections of the application, such as the Mitigation Plan and different species conservation plans. However, the Contingency Plans are not all consistent in terms of agency notifications, and the PAFBC Law Enforcement is not identified as being notified as required in the PAFBC PNDI clearance letter. Also, the HDD table is not included in all versions of the Contingency Plan. Revise the HDD Inadvertent Return Contingency Plans to all be consistent, include the appropriate jurisdictional agencies, and provide documentation that revised plans have been sent to all jurisdictional agencies. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.14(b)(4)]	The contingency plan has been revised and re-titled to be Inadvertent Return Assessment, Preparedness, Prevention and Contingency Plan (IR Plan). This revised IR Plan is located in Attachment 12, Tab 12C. Note that the older version of this plan is still contained within the application in connection with the documentation of early agency coordination efforts. The PAFBC, PGC, DCNR, and USFWS have been sent the revised IR Plan and copies of this correspondence is provided in Attachment 6, Tab 6B.
JU 58.	Identify the depth of the proposed pipelines beneath the bottom of the stream beds and wetlands. [25 Pa. Code §§105.301(4)]	The pipeline will be buried with a minimum of 5 feet of cover beneath streams and a minimum of 4 feet of cover beneath wetlands. These specifications are provided in E&S Plan Notes and Details and within site-specific drawings.

JU 59.	Revise the application plans to include all	To ensure contractor compliance, SPLP has developed a
	avoidance and minimization measures for identified	state-of-the-art web-based mapping applications that is
	species of concern associated with water	required to be used by the contractor to determine all
	obstructions and encroachments from the	special environmental restrictions such as PNDI and trout
	Pennsylvania Game Commission, Pennsylvania	stream restrictions. All of the restrictions and avoidance
	Fish and Boat Commission, Pennsylvania	measures committed to and approved by PNDI agencies
	Department of Conservation and Natural	are included in the Project Description within a summary
	Resources, and the U.S. Fish and Wildlife Service.	table and within the PNDI agency final determination
	Ensure any seed mixtures, matting, or other	letters and accepted Conservation Plans included in
	specified items are included in the plans and/or	Attachment 6, Tab B. The same notes in the Project
	E&S plans. In addition, revise the Environmental	Description are reflected within the E&S Plan notes.
	Assessment to discuss the avoidance and	Trout stream restrictions and other sensitive species
	minimization measures and clearances received.	restrictions are also noted on aerial site plans and E&S
	[25 Pa. Code §§105.15(a), 105.14(b)(4),	Plans, however due to the sensitive nature of the some of
	[105.16(c)(3)]	the information not all is depicted. SPLP will implement
		a comprehensive Environmental Training and Inspection
		program designed specifically to ensure contractors are
		appropriate notified and are adhering to such restrictions.
JU 60.	The E&S plan details for temporary stream	The E&S plans (Attachment 12) have been revised to
	crossings and plan drawings state timber mats or	identify that a temporary equipment bridge will be
	temporary equipment bridge may be utilized but	installed or temporary timber matting for wetland will be
	only depicts a timber mat bridge. Provide details	installed. The contractor is then obligated to utilize any of
	for the proposed temporary equipment bridge(s)	the approved methods for these crossing types provided
	which depict the size, shape, and span of the	within the E&S Notes and Details. Exact dimensions will
	structure. Provide separate details depicting the	be dictated by the location and method chosen.
	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)]	

JU 61.	Trench plugs are proposed to be located at wetland/upland interfaces. Additional trench plugs may be necessary along the length of the crossing due to the length and/or slope to maintain hydrology throughout the wetland. Review and revise the application and plans accordingly. Some additional guidance is available in the PA E&S Control BMP Manual. [25 Pa. Code §§105.13(e), 105.18a]	The wetland standard typical crossing detail has been updated to include trench plugs within the wetland for long open-cut wetland crossings. Also, the E&S plan drawings at Attachment 12 have been revised to be consistent with the detail.
JU 62.	Temporary road stream crossing details utilizing culverts are provided on E&S plans ES-0.09 and ES-0.11; however, the E&S plans and impact plans do not identify that any of these crossings are to be used. Revise the E&S plans to remove these proposed crossing methods if not proposed to be utilized, or identify where the proposed crossing methods will be utilized. [25 Pa. Code §§105.13(e)(1)(i)(C), 105.151(1), 105.21(a)(1), 105.13(e)(1)(iii)(A)]	The E&S Plan 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.
JU 63.	Revise the stream Bank Restoration Detail to clearly indicate that the existing bank slope and grade and elevation are to be restored, to identify a biodegradable erosion control blanket to be utilized, and to specify the native plantings to be used. In addition, some stream banks are likely to be a-typical, like vertical banks, or very low banks, or eroding banks. Provide plans and details for how banks of a-typical conditions will be restored. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1, 105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4), 105.16(d)]	Streams will be restored in accordance with the E&S Plan provided in Attachment 12. The E&S Plan provides the narratives, revised standard typical details, and at several locations site-specific plans for stream restoration. Also the BMPs for restoring streams are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures found in Attachment 11, Enclosure E, Part 4 and are consistent with the E&S Plan. These plans provide details on the erosion control blanket and plantings. Atypical bank situations will be addressed in the field on a site specific basis, and will have the goal of restoring the banks as closely as possible to their

		preconstruction condition or a more stable angle of repose.
JU 64.	Provide plans or a detail for the restoration of stream beds at open cut stream crossings. This should include replacement of native stream bed material and assurance that no significant changes in bed grade occur. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1, 105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4), 105.16(d)]	Native stream bed material will be separated from other spoil for reinstallation after restoration (see the E&S Plan provided in Attachment 12). An evaluation was done for 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.
JU 65.	Multiple streams which begin within the proposed ROW or immediately adjacent to it are proposed to be crossed by the proposed pipelines. Revise the application to discuss and provide plans outlining how source(s) of the streams will be protected and maintained. Revise the Environmental Assessment and Mitigation Plan to discuss the impacts to the streams both within the ROW and the downstream affects to the resources and properties. Provide compensatory mitigation for streams in which flow will be adversely affected. Provide this information for the following streams, at a minimum: S-L9, S-L12, S-K72, S-K63, S-K62, S-K56, and S-K55. [25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(3), 105.15(a)(1), 105.16(d)]	As described within the enclosures of the Comprehensive Environmental Evaluation provided in Attachment 11, impacts to water resources, including S-L9, S-L12, S-K72, S-K63, S-K62, S-K56, and S-K55 have been minimized to the maximum extent practicable. Where planned, the crossing and restoration of all Project streams will use temporary equipment bridge installation and dry crossing trenching methods as outlined and described within the E&S Plan provided in Attachment 12 and the Impact Avoidance, Minimization, and Mitigation Procedures provide in Attachment 11, Enclosure E, Part 4. These methods are designed in accordance with the DEP E&S Manual to maintain flow, protect sources, and minimize direct and secondary impacts to on-site and offsite resources. Similarly, adjacent resources are protected from secondary impacts through implementation of the E&S Plan in areas outside of aquatic resources. The Comprehensive Environmental

		Evaluation demonstrates that when implementing these
		methods along with site restoration, impacts to water
		resources are temporary and minor.
JU 66.	The Mitigation Plan states that for HDD crossings,	NA – Heading
	a telemetry guidance system will be used.	
JU 66.a.	Revise the application to identify what type of	Telemetry guidance systems for HDDs can include a
	telemetry guidance system will be utilized;	cable, wire, or other obstructions to be placed in waters of
	specifically if it will utilize cables, wires, or other	the Commonwealth.
	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)]	
JU 66.b.	If cables, wires, or other obstructions will be	When used, the HDD cable will be aligned along the
	utilized across waters of the Commonwealth revise	proposed pipeline centerline (above the drill path);
	the application to identify these temporary impacts,	accordingly, the impact calculations and application fees
	include them in the impact tables. Provide plan	are already accounted for within the application. For
	drawings and cross sections depicting the	HDDs of waters of the Commonwealth where a telemetry
	obstructions, and provide information on the	guidance system will consist of cables, wires, or other
	purpose, function, and length of time they will be	obstructions to be placed in waters of the commonwealth,
	installed. [25 Pa. Code §§105.13(e)(1)(i),	and as required based on SPLP's coordination with PA
	105.301(3), 105.301(5), 105.15(a),	Fish and Boat Commission, an Aids to Navigation
	105.13(e)(1)(iii)]	(ATON) Plan has been prepared and provided in
		Attachment 7B. This plan explains the use and placement
		of this telemetry guidance system, includes plan and
		profile drawings, and describes the length of time it will
		be present in the resource.

JU 66.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)]	For HDDs of waters of the Commonwealth where a telemetry guidance system will consist of cables, wires, or other obstructions to be placed in waters of the commonwealth, and as required based on SPLP's coordination with PA Fish and Boat Commission, an Aids to Navigation (ATON) Plan has been prepared and provided in Attachment 7B.
JU 67.	The following wetlands are identified in the application as Exceptional Value (EV) due to Wild Trout: L3. However, the department was unable to determine wild trout status for the adjacent streams or tributaries thereto. Clarify and revise the application accordingly. [25 Pa. Code \$\$105.13(e)(1)(x)(B), 105.17(1)(iii), 105.21(a)(1)]	Wetland L3 is associated with George Creek, which was previously considered a wild trout stream by PAFBC until its designation was removed in spring/summer 2016. This wetland has been revised so that the Exceptional Value status has been removed from the application materials.
JU 68.	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.
JU 69.	Revise impact Table 3 and the impact plans to correctly identify whether streams are wild trout or not. As presently proposed, no wild trout streams are proposed to be impacted by the project. [25 Pa. Code §§105.21(a)(1), 105.15(a)]	The revised Impact Table 3 of Attachment 11 and site plans indicate which streams are tributaries to streams where PA Fish and Boat Commission (PAFBC) has determined there is a naturally reproducing trout population, based on DEP guidance, PAFBC shapefiles, webpages, and communications. SPLP notes that several changes occurred in the months since filing the original application, including the removal of George Creek from the PAFBC Wild Trout list.
JU 70.	Provide information about the pump size, flow rate, and duration of use for those open cut crossings (dry crossings) that will use the typical bypass pump-around method. Provide justification for why larger streams do not utilize the proposed flume option. How will aquatic life be able to pass throughout the stream safely? [25 Pa. Code § 105.401(4), 105.13(g)]	The contractor has available one of four crossing methods to facilitate the crossing within the allowable time frames and the conditions of maintaining a dry crossing while maintaining stream flow. The durations of the stream crossings are indicated within the E&S Plan notes and details and within the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4. With implementation of the duration restrictions and BMP crossing methods the impacts will be minor and temporary as described in Attachment 11, Enclosure D and Attachment 11, Enclosure E, Part 2.
JU 71.	The impacts described under Section 5.0 of the Mitigation Plan are inconsistent with the impacts provided in the impact tables in the Environmental Assessment. Revise this inconsistency to state the correct impact totals throughout the application. [25 Pa. Code §§105.15(a), 105.21(a)(1), 105.13(e)(1)(i)(ix)]	These documents have been adjusted to avoid inconsistencies, and the impacts are now represented in Attachment 11, Enclosure D – Project Impacts, Enclosure E, Part 2 – Project-wide Resource Identification and Project Impacts, and also, the Compensatory Mitigation Plan in Enclosure F.

JU 72.	The application states that the period of instream	For the open cut crossings of larger waters, the E&S Plan
	work to install the proposed pipeline(s) will be less	notes and details provided in Attachment 12 and Impact
	than 24 hours in minor waterbodies and 48 hours	Avoidance, Minimization, and Mitigation Procedures
	for crossing of "intermediate" (10-30' across)	(Attachment 11, Enclosure E, Part 4) have been revised to
	waterbodies. Describe how these timeframes	indicate that in-stream work to occur in minor water
	coincide with the hydrostatic testing procedures	bodies (>10 feet wide) within 24 hours, and in major
	outlined in the project description. Do the trenches	water bodies (10 to 100 feet wide) within 48
	remain open during testing? To facilitate the	hours. Open-cut wetlands are tested along with the
	further understanding of your project, revise your	mainline testing and testing would be when the mainline
	application to discuss the estimated time	is ready. Stream and wetland crossings are immediately
	installation will take in crossings of wetlands and	backfilled and prior to testing.
	larger watercourses. [25 Pa. Code §	
	105.13(e)(1)(iii)]	
JU 73.	Provide an assessment of the functions and values	Detailed functions and values assessments have been
	of any additional Exceptional Value wetlands and	included for all Exceptional Value wetlands at
	wetland with impacts over 1 acre. [25 Pa. Code	Attachment 11, Enclosure C, regardless of acreage.
	§§105.13(e)(3), 105.15(a)]	
JU 74.	Enclosure C of the Environmental Assessment	Attachment 11, Enclosure C has been revised to clarify
	discusses the various sections in terms relative to	that there are Project areas that do not completely overlap
	the existing pipeline ROW; however, the proposed	the existing ROW. The Application, including
	ROW does not fully overlap the existing ROW but	Attachment 11, Enclosure E, Part 2 discusses all
	abuts/parallels the existing ROW. Revise Enclosure	temporary and permanent impacts upon resources as a
	C to discuss the functions, habitat, and other factors	result of the entire Project, including resources inside and
	in Enclosure C outside of the existing ROW and in	outside the ROW.
	areas of proposed impact and the overall resources.	
	[25 Pa. Code §§105.13(e)(1)(x), 105.15(a),	
	105.14(b)(4)]	

JU 75.	Public water supplies are located within in the vicinity of the proposed pipeline. The application states that there will not be any impacts the water supplies as a result of the pipeline. Provide the supporting documentation that led to this conclusion. Locate the public drinking water supplies in the vicinity of the proposed pipeline. Additionally, we recommend that you contact any public water supplier in order to help determine if your project will impact the public water supplier and subsequently provide documentation of interactions, through correspondence, with each supplier. Ensure all Public water supplies in the vicinity of the proposed pipeline are identified within the location map. Enclosed are instructions on how to utilize DEP's eMapPA to identify public water supplies in the vicinity of your project. [25 Pa. Code §§105.13(e)(1)(ii) & 105.13(e)(1)(x) &	Water supply impacts have been analyzed and addressed within three supplemental plans to the PPC Plan, the Water Supply Plan, the IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These plans address the elements of this comment and are provided in Attachment 12.
JU 75.a.	Upon identification of public drinking water supplies, revise questions 14.0, 15.0, and 16.0 of the General Information Form accordingly.  [General Information Form Instructions]	The responses to questions 14, 15, and 16 of the General Information Form in Attachment 1 have been revised to address this comment.
JU 75.b.	Upon identification of public drinking water supplies, revise the Environmental Assessment Form and associated enclosures accordingly to discuss the resources and impacts from water obstructions and encroachments on the public water supplies. [25 Pa. Code §§105.15(a), Environmental Assessment Form Instructions]	Attachment 12, Tab 12B provided a new Water Supply Assessment, Preparedness, Prevention and Contingency Plan, which discusses the potentially affected resources and impacts from water obstructions and encroachments on public water supplies.

JU 75.c.	Upon identification of public drinking water supplies, revise the Alternatives Analysis and Mitigation Plan accordingly to avoid and minimize impacts to public water supplies and provide a detailed discussion on alternative routes, designs and methods documenting that there is no practicable alternative to further avoid and	The Alternatives Analysis in Attachment 11, Enclosure E, and the Impact, Avoidance, and Minimization, Mitigation Procedures in Attachment 11, Enclosure E, Part 4 have been revised to provide a detailed discussion of alternative routes, designs and methods and to demonstrate that there is no practicable alternative to further avoid and minimize impacts.
	minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.13(e)(1)(ix), 105.14(b)(5)]	
JU 76.	The application does not identify if the resources proposed to be affected are part of or located along a private water supply, including surface and groundwater sources. Revise the application and the Environmental Assessment to identify if any of the proposed resources are part of or located along a private water supply. [25 Pa. Code §§105.15(a), Environmental Assessment Form Instructions]	The water resources that are part of or located along a private or public water supply are identified in Attachment 12, Tab 12B. Potential impacts to public and private water supplies have been assessed and addressed within three supplemental plans to the PPC Plan, the Water Supply Assessment, Preparedness, Prevention and Contingency Plan, the Inadvertent Return Assessment, Preparedness, Prevention, and Contingency Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These plans are provided in Attachment 12, Tab 12B and Tab 12C.
JU 76.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 Plan, the IR Plan, and the Void Mitigation Plan for Karst Terrain and Underground Mining. These supplemental plans are provided in Attachment 12.

JU 76.b.	Provide procedures that will be followed to	Attachment 12, Tab 12B includes a Water Supply
	investigate and resolve impacts to private water	Assessment, Prevention, Preparedness, and Contingency
	supplies should they occur as a result of the	Plan that addresses potential impacts and describes the
	proposed activities. These procedures should	procedures to prevent and prepare for resolution of water
	discuss, at a minimum, how private water supply	supply impacts should they occur, including notification
	owners will be alerted in the event of an inadvertent	procedures.
	return and how impacts will be resolved and/or	
	mitigation.	
JU 77.	Section F, Attachment 11, EA Form, Page 2, item 7	Water supply impacts have been analyzed and addressed
	states, "Is the water resource part of or located	within three supplemental plans to the PPC Plan, the
	along a private or public water supply?" The	Water Supply Plan, the IR Plan, and the Void Mitigation
	Applicant checked "No". However, no	Plan for Karst Terrain and Underground Mining. These
	documentation validating this statement is provided	plans are provided in Attachment 12 and the EAF revised
	in the application. The Department is concerned	accordingly. These plans provide instructions and
	that private and perhaps public water supply wells	procedures to facilitate the avoidance and minimization of
	are located along crossed stream and wetland water	impacts and provides the framework to investigate and
	resources and/or along the length of the HDD	resolve impacts caused by spills, releases, and other
	operations. The applicant needs to propose	pollution events should they occur. Applicable public
	measures to protect all water uses, both surface	private downstream user information is compiled within
	intakes and groundwater sources, located along	the Water Supply plan and identification, notification, and
	and/or downstream of the proposed work areas.	testing procedure for private wells discussed.
	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)].	
JU 78.	Revise Enclosures C & D to discuss the watercourses and wetlands proposed to be impacted and the impacts on them, and not discuss the impacts in general terms of the overall project or general type of impacts. [25 Pa. Code §§105.13(e)(1)(x), §105.15(a)]	Enclosure C of the Environmental Assessment has been revised to provide more detailed discussion of the existing aquatic resources and wetland functions and values within the proposed ROW. Enclosure D of the Environmental Assessment and Attachment 11, Enclosure E, Part 2 have been revised to provide more detailed discussion of the impacts to existing aquatic resources and wetland
		functions and values within the proposed ROW.
JU 79.	The application states that topsoil will be segregated. Provide a revised Enclosure D of the Environmental Assessment that explains how the topsoil depth will be determined in the field. [25 Pa. Code §§105.15(a), 105.15(b), and Environmental Assessment Instructions]	Topsoil depth varies considerably from site to site and within the site. Accordingly, topsoil depth will be determined in the field by experienced construction contractors by and/or the EI through visual observation.
JU 80.	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.
JU 81.	Section A.3 of Enclosure D of the Environmental Assessment identifies the Allegheny Portage Railroad of the Pennsylvania Canal in Cumberland County, when it is located in Blair County. Revise this section to be accurate. [25 Pa. Code §§105.13(e)(1)(x), 105.21(a)(1), 105.15(a)]	Section 11 of the EAF, Enclosure D has been revised to address this comment.

JU 82.	Revise section D.4 of Enclosure C of the	Attachment 11, Enclosure C, Section D.4 has been revised
	Environmental Assessment to identify and discuss	to discuss hiking trails in Juniata County, not Cambria
	hiking opportunities and trails in Juniata County,	County. Attachment 11, Enclosure D, Section B.4.d has
	not Cambria County. Revise section B.4 d. of	been revised to address impacts to hiking trails.
	Enclosure D of the Environmental Assessment to	
	discuss specific hiking trails which will be	
	temporarily closed and identify their locations	
	within the project boundary. If hiking trails within	
	the project boundary are associated with proposed	
	water obstructions or encroachments, provide a	
	discussion on the impact to the trail, the length of	
	time it is proposed to be closed, plans for signage	
	and detours, and correspondence from any agencies	
	or trail organizations regarding coordination of the	
	closure. [25 Pa. Code §§105.13(e)(1)(x),	
	105.21(a)(1), 105.15(a), 105.14(b)(5),	
	Environmental Assessment Form Instructions]	
JU 83.	Revise section A.9 of Enclosure D of the	Impacts of the Project, which includes an evaluation of
	Environmental Assessment to discuss and identify	water resource impacts, on these designations are
	impacts to preserved farms and/or farms with	provided in Attachment 11, Enclosure D, A.11 and
	agriculture preservation easements or restrictions.	Enclosure E, Part 2.
	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]	

Enclosure C of the Environmental Assessment	Enclosure D of Attachment 11 has been revised to discuss
_ ~ ~	the impacts the proposed water obstructions and
	encroachments will have on the Tuscarora Ridge-The
*	Pulpit IBA. In addition, A revised Migratory Bird
	Conservation Plan was submitted to the USFWS in
	correspondence dated November 23, 2016. That
	correspondence and plan are included in Attachment 6,
	Tab 6B. The conservation plan addresses many of the
, , , , , , , , , , , , , , , , , , , ,	USFWS recommendations for linear Projects. Many of
	which have been implemented during planning and
24, 2016 are being addressed. [25 Pa. Code	design, including paralleling ROWs and reducing
§§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5),	workspaces.
105.15(a), 105.18a(b)(1)]	
Revise Section B.1.c. of Enclosure D of the	Attachment 11, Enclosure D has been revised to discuss
Environmental Assessment to discuss, any	SPLP's commitments to implement avoidance and
avoidance and minimization measures, and	minimization measures. All clearances and conservation
committing to implementing them. It currently	plans for threatened and endangered species on the Project
states that clearances are being worked on. [25 Pa.	have been received from the regulating agencies. The
Code §§105.15(a), 105.14(b)(4), 105.21(a)(1)]	final avoidance and minimization commitments are
	detailed in the Project Description as well as within the
	PNDI documents presented in Attachment 6.
Enclosure C of the Environmental Assessment	Attachment 11, Enclosure D has been revised to discuss
identifies Core Habitat and two Supporting	potential impacts to Core Habitat and Supporting
Landscapes within the project area; however,	Landscapes.
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), Environmental	
Assessment Instructions]	
	mentions that the project crosses the Tuscarora Ridge-The Pulpit 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), 105.18a(b)(1)]  Revise Section B.1.c. of Enclosure D of the Environmental Assessment to discuss, any avoidance and minimization measures, and committing to implementing them. It currently states that clearances are being worked on. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.21(a)(1)]  Enclosure C of the Environmental Assessment identifies Core Habitat and two Supporting Landscapes 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), Environmental

JU 87.	Revise the description of wetland functions and	All functions and values have been evaluated for all
	values to not only include the principle functions	wetlands. The Principal Functions and Values are
	and values, but all the functions and values the	identified on the Wetland Function-Value Evaluation for
	wetlands provide. [25 Pa. Code §§105.13(e)(2),	Exceptional Value wetlands. In many cases, all functions
	105.14(b)(13), 105.15(a)]	and values may be Primary; however, secondary functions
		and values are also identified for each wetland. An
		updated function and values assessment is included in
		Attachment 11, Enclosure C.
JU 88.	Revise the Environmental Assessment to discuss	In Juniata County there are no proposed permanent
	the impacts to each wetland where a vegetative	conversions of wetland classifications.
	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)]	
JU 89.	Based on the information in the application, it is	Functions and values have been evaluated consistently
	apparent that wetland functions and values are	throughout all wetlands within the Project area and all
	present in multiple wetlands which have not been	applicable functions and values at each wetland have been
	identified in the functions and values assessments	identified. An updated function and values assessment is
	and descriptions table (ex. wildlife habitat,	included in Attachment 11, Enclosure C.
	groundwater discharge/recharge, flood flow	
	alteration, and nutrient removal). Based on the	
	information provided, the functions and values	
	have been applied inconsistently across the	
	wetlands. Re-evaluate and revise the functions and	
	values assessments and descriptions for all	
	wetlands. [25 Pa. Code §§105.13(e)(2),	
	105.13(e)(3), 105.14(b)(13), 105.15(a)]	

JU 90.	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.
JU 91.	Revise Enclosure D of the Environmental Assessment to explain, on an individual crossing and cumulative basis, why open cut pipe installation combined with permanent ROW maintenance will not result in an adverse impact to exceptional value wetlands or a significant adverse impact to other wetlands. The analysis should include a discussion of potential temporary or permanent impacts to hydrology as a result of the open cut, as well as a loss of woody species in forested/scrub shrub areas. Provide a plan to minimize the risk of permanent impacts to wetland hydrology for each wetland where an impact may occur. [25 PA Code §§105.13(e)(1)(ix) & 105.18a]	The Alternatives Analysis provided in Attachment 11, Enclosure E, Part 3 demonstrates SPLP's efforts to avoid and minimize impact to all wetland to the maximum extent practicable. The county-specific Project impacts provided in Attachment 11, Enclosure D and the Project-wide impacts provided in Attachment 11, Enclosure E, Part 2 demonstrate that the impacts to aquatic resources will be minor and temporary. The Project's E&S Plan provided in Attachment 12 and Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4, and Compensatory Mitigation Plan provided in Attachment 11, Enclosure F provide the plans and BMPs that minimize the risk of permanent impacts to wetland hydrology and ensure the impacts are minor and temporary in regards to construction and operations and maintenance of the permanent ROW. Attachment 11, Enclosure E, Part 6 also provides a Cumulative Impacts Assessment.

JU 92.

Wetlands are located in mapped soils with shallow bedrock and restrictive soil layers (i.e. fragipans), and the application's data sheets and functions and values assessment identifies shallow rock layers, shallow bedrock, and/or restrictive soil layers are present. Also, based on the functions and values descriptions wetlands may contain groundwater discharges, such as springs or may be concave and not connected to groundwater.

Impacts to wetland hydrology associated with open-cut construction vary depending on the wetlands primary source of hydrology, the wetlands position relative to the water table, and the underlying geology/soils (i.e., confining layer and/or fragipans to maintain hydrology). A restrictive layer is a layer in the soil/substratum profile that could slow or prevent the infiltration of water, potentially resulting in a perched water table. Restrictive layers could include, but are not limited to, consolidated bedrock, fragipans, dense glacial till, layers of silt or substantial clay content, strongly contrasting soil textures (e.g., silt over sand), or cemented layers, such as ortstein.

In order to minimize impacts to wetlands that depend on a restrictive layer for hydrology, SPLP has conducted a thorough review the mapped soil units in combination with field data to determine if the soil unit has the potential to support fragipan wetlands and if the field data indicated that there was a refusal when characterizing the soils. Refusal is the depth at which a layer inhibiting the ability to dig deeper was reached. Refusal is not always indicative of a hydrologically restrictive layer (e.g., high gravel/cobble content, dense tree roots), but could be indicative of a shallow restrictive layer. A refusal layer may still be permeable; whereas, a restrictive layer is impermeable by definition.

In wetlands where a confining layer or fragipan has been identified based on SPLP's assessment, or is encountered during the excavation of the trench, SPLP will have Professional Geologist (PG) work with the construction EIs. Specifically, the PG will field review all wetlands areas before and during trenching. During trenching, the

		PG will advise on the need to segregate confining layers for proper restoration of subsurface conditions following trenched construction. At wetlands determined to require confining layer restoration, the PG will also be on-site during subsurface soil backfilling to ensure proper soil layer restoration. The PG may advise on bentonite sandbag layering along the entire or portions of the trench line at the appropriate height if an identified confining layer cannot be segregated and/or restored. The PG will also provide technical expertise and oversight when karst/openings or groundwater seeps are encountered during trenching activities, and also when the presence of groundwater seeps and drains are encountered within wetland areas. Please see Attachment 11, Enclosure E, Part 2 for the discussion on impacts to hydrology, as well as the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 for details on confining layer identification and the SPLP's inspection program, including the provision of a PG.
JU 92.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. An updated function and values assessment is included in Attachment 11, Enclosure C.

JU 92.b.	Identify and provide a discussion on any potential	See response to comment 92.
	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)]	
JU 92.c.	Wetlands W-Y13, W-L17, and W-L16 contain/may	These resources occur in Huntingdon County where the
	contain open water/seasonal inundation, based in	same comment was made. A response is provided within
	the information provided in the application. Provide	that technical deficiency response correspondence.
	site specific information on the hydrology and soils	
	and data on why the wetlands maintain open	
	water/seasonal inundation and provide site specific	
	construction plans, cross sections, and restoration	
	details to ensure that the hydrology and functions	
	and values of the wetland is not altered and it	
	continues to maintain inundation and seasonal	
	hydrology. [25 Pa. Code §§105.13(e)(1)(x),	
	105.14(b)(4), 105.14(b)(13), 105.15(a),	
	105.18a(a)(1), 105.18a(a)(3), 105.18a(a)(4),	
	105.301(4), 105.301(5)]	
JU 93.	Revise Enclosures C&D to assess the condition and	Attachment 11, Enclosure E, Part 2 discusses primary and
	discuss the condition of and impacts to forested and	secondary impacts to forested and scrub-shrub riparian
	scrub shrub riparian areas. Revise the enclosures to	areas; and Attachment 11, Enclosure E, Part 5 has been
	discuss the primary impacts and secondary impacts,	expanded to include an analysis of Chapter 105
	as well as consideration of antidegradation on	antidegradation requirements related to forested riparian
	watercourses for each watercourse crossing from	buffer impacts along watercourses crossed by the Project.
	the riparian vegetation impacts. [25 Pa. Code	

	\$\$105.15(a), 105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11), 105.14(b)(12), 105.14(b)(14)]	
JU 93.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 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 (Project-wide Resource Identification and Project Impacts).
JU 93.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.
JU 93.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 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.

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and maintenance. However, wetlands will not be cut or mowed during general operation and maintenance.

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", "ROW-Travel LOD", Additional Temporary Workspace ("ATWS"), 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.

		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.
JU 94.	To aid in evaluating the condition of and change in condition to watercourses and wetlands as discussed in other comments, the Department recommends utilizing the Draft Pennsylvania Riverine Condition Level 2 Rapid Assessment Protocol and the Draft Pennsylvania Wetland Condition Level 2 Rapid Assessment Protocol. These protocols are not for identifying the functions and values of the resources, but rather are utilized to assess the current and proposed conditions of the resources. [25 Pa. Code §§105.14(a), 105.14(b)(4), 105.14(b)(13), 105.14(b)(12), 105.15(a), 105.13(e)(1)(x)]	Conditions of the waterbodies and wetlands have been documented in the Aquatic Resource Reports and Addendums, and within the functions and value assessments. Wetland and stream restoration will be performed at each wetland according to Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4. Each procedure and method of crossing is provided and designed to ensure wetland hydrology, vegetation, soils, and functions and values are restored and each stream bed and bank are restored. Project Impacts are discussed within Attachment 11, Enclosure D and Enclosure E, Part 2 and demonstrate that unavoidable impacts to aquatic resources are temporary and minor.

JU 95.

The Mitigation Plan appears to indicate that streams and wetlands which will be crossed by HDD are not proposed to have vegetative impacts either during construction or during operation and maintenance of the proposed pipelines. However, it is unclear on the plan drawings and in the application narrative precisely if vegetation cutting, clearing, removal, or grubbing is or is not part of the proposed construction, operation, and maintenance. Where Horizontal Directional Drill (HDD) and Bore crossings of resources are 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.

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.

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and maintenance. However, wetlands will not be cut or mowed during general operation and maintenance.

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the

Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal. These areas will be allowed to revert; no future maintenance or operations will occur.

The "Permanent Easement" depicted on the aerial site plans identifies the limits of SPLP's agreement with the affected landowner, and is an independent designation from proposed "Permanent Impacts" and "Temporary Impacts". In areas not identified as "Permanent Impacts" or "Temporary Impacts" within the "Permanent Easement", no permanent or temporary vegetation cutting, clearing, grubbing, removal, and/or maintenance is proposed. The "Permanent Easement" is depicted on the aerial site plans in response to previous DEP requests to show the limits of the permanent easement in areas where "Permanent Impacts" and "Temporary Impacts" are not proposed, and does not represent a DEP Chapter 105 jurisdictional area.

JU 95.a.	Revise the application plan drawings and	See response to JU 95.
	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)]	
JU 95.b.	Revise the plan drawings to clearly indicate all	See response to JU 95. In addition, maintenance activities
	locations where maintenance clearing, cutting,	are discussed within the Impact Avoidance, Minimization,
	removal, or other alternation is not part of proposed	and Mitigation Procedures located in Attachment 11,
	maintenance activities. [25 Pa. Code	Enclosure E, Part 4.
	§§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),	
HI OF	105.11(d)]	A 1: 1: 1 D : 1 D : 1 (A(( 1 + 10))
JU 95.c.	If construction, normal operation, or normal	As explained in the Project Description (Attachment 9),
	maintenance activities will require the clearing,	construction and normal operation and maintenance
	cutting, removal, or other alteration of the vegetation in or adjacent to the wetland and streams	activities will require the clearing, cutting and mowing of vegetation along areas of the ROW in and adjacent to
	the application must be revised to identify and	wetlands and streams. Normal operations and
	discuss in detail the primary impacts and secondary	maintenance activities will not involve the
	impacts to these resources from the proposed	removal/denuding of vegetation along the ROW.
	project. The applications Environmental	Attachment 11, Enclosure E, Part 2 (Project-wide
	Assessment should be revised to discuss the	Resource Identification and Impacts) discusses direct and
	resources and the impacts thereto. Compensatory	secondary impacts to such vegetation as a result of
	mitigation may be necessary and required to	construction and operation/maintenance activities. The
	compensate for impacts to these resources. [25 Pa.	permanent impacts to wetland vegetation (i.e., permanent
	Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4),	conversion of vegetation cover type) due to normal
	105.14(b)(12), 105.14(b)(13), 105.14(b)(14),	operation and maintenance activities have been accounted
		for in the calculation of wetland impacts (Attachment 11,

	105.14(b)(11), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]	Table 2) and are being mitigated for in the Compensatory Mitigation Plan (Attachment 11, Enclosure F).
JU 96.	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.
JU 96.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.
		As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment

and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and maintenance. However, wetlands will not be cut or mowed during general operation and maintenance.

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal. These areas will be allowed to revert; no future maintenance or operations will occur.

The "Permanent Easement" depicted on the aerial site plans identifies the limits of SPLP's agreement with the affected landowner, and is an independent designation from proposed "Permanent Impacts" and "Temporary Impacts". In areas not identified as "Permanent Impacts" or "Temporary Impacts" within the "Permanent Easement", no permanent or temporary vegetation cutting, clearing, grubbing, removal, and/or maintenance is proposed. The "Permanent Easement" is depicted on the

		aerial site plans in response to previous DEP requests to show the limits of the permanent easement in areas where "Permanent Impacts" and "Temporary Impacts" are not proposed, and does not represent a DEP Chapter 105 jurisdictional area.
JU 96.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 JU 96.a. Maintenance activities are discussed within the Impact Avoidance, Minimization, and Mitigation Procedures located in Attachment 11, Enclosure E, Part 4.
JU 96.c.	If construction, normal operation, or normal maintenance activities will require the clearing, cutting, removal, or other alteration of the vegetation in or adjacent to the wetlands the application must be revised to identify and discuss in detail the primary impacts and secondary impacts to these resources from the proposed project. The applications Environmental Assessment should be revised to discuss the resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources from these impacts. [25 Pa. Code §§105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.15(a), 105.11(d), 105.13(e)(1)(ix), 105.18a(a), 105.18a(b)]	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).

JU 97.	The Mitigation Plan and Environmental	Comment is addressed below.
	Assessment state that conversion of Palustrine	
	Forested Wetlands (PFO) is proposed to occur, that	
	there will be a functional loss, but the loss is de	
	minimus.	
JU 97.a.	Revise the Mitigation plan to replant the PFO	In conventional lay areas, the pipelines will be trenched to
	wetlands in the permanent and temporary ROW	achieve 4 feet of cover. Trees are excluded from the
	with native trees if possible, and if not possible	permanent ROW to allow aerial safety inspections, as
	provide specific details and documentation on why	well as provide access for repair and prevent the pipelines
	this is not possible. [25 Pa. Code	from being compromised by tree growth. However,
	§§105.13(e)(1)(viii), 105.1, 105.14(b)(4),	please refer to the Impact Avoidance, Minimization, and
	105.14(b)(13), 105.18a(a), 105.18a(b)]	Mitigation Procedures (Attachment 11, Enclosure E, Part
		4) that demonstrates additional efforts to maximize PFO
		restoration within the permanent ROW.
JU 97.b.	Based on the Mitigation Plan, PSS wetlands are	The application has been revised to include restoration
	acceptable in the permanent ROW. Therefore, if	plantings in PSS and PFO areas within the permanent
	replanting of PFO wetlands in the permanent or	ROW to reduce the amount of permanent vegetation
	temporary ROW is not possible, revise the	covertype conversion in these areas. More details are
	mitigation plan to replant converted PFO wetlands	provided in Attachment 11, Enclosure D; the Impact
	in the ROW with shrubs. [25 Pa. Code	Avoidance, Minimization, and Mitigation Procedures
	§§105.13(e)(1)(viii), 105.1, 105.14(b)(4),	provided in Attachment 11, Enclosure E, Part 4; and the
	105.14(b)(13), 105.18a(a), 105.18a(b)]	Compensatory Mitigation Plan in Attachment 11,
		Enclosure F. There are no PFO wetlands located in the
		proposed permanent ROW in Juniata County.

JU	97.c.	

The application does not evaluate the cumulative conversion of PFO wetlands for the entire project. The applications for Blair, Huntingdon, Juniata, Perry, Cumberland, York, Dauphin, Lebanon, Lancaster, and Berks Counties within the Department's Southcentral Region propose a conversion on approximately 0.528 acre of PFO wetlands. Based on the Department's review of the impacts for PFO wetlands, compensatory mitigation is required to offset the identified PFO functional impacts of conversion to PSS. Revise the application to assess the impact to the effected forested wetlands, evaluate the cumulative effect on all counties of the proposed project, and provide compensatory replacement for the lost functions and values. [25 Pa. Code §§105.13(e)(1)(ix), 105.13(e)(1)(viii), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.15(a), 105.18a(a), 105.18a(b), 105.20a(a)(2)]

A stand-alone alternatives analysis document, which evaluates the cumulative conversion of PFO wetlands for the entire project, has been added to the application materials and is located in Attachment 11, Enclosure E, Part 3. The stand-alone compensatory mitigation plan has been revised and is located in Attachment 11, Enclosure F.

JU 98.	The application states that temporarily impacted	The planting plans for the restoration of PSS and PFO
	Palustrine Scrub Shrub (PSS) and PFO wetlands	areas is provided in the Impact Avoidance, Minimization,
	will be replanted with native trees and shrubs, PSS	and Mitigation Procedures provided in Attachment 11,
	wetlands in the permanent ROW will be planted	Enclosure E, Part 4. The procedures provide for the
	with wetland shrubs, and PFO wetlands in the	locations, species to be planted, density, size, timing,
	permanent ROW will be allowed to revert to	goals, and objectives, and monitoring for successful
	PSS/PEM wetlands. Provide planting plans and	restoration.
	details for these areas and for the replanting of PFO	
	areas in the permanent and temporary ROWs. The	
	planting plans must identify the locations of the	
	plantings and wetlands, the species to be planted,	
	the planting density, the proposed size of the	
	plantings, planting timing, goals and objectives for	
	success, and a monitoring plan to ensure re-	
	establishment. [25 Pa. Code §§105.13(e)(1)(ix),	
	105.18a(a),105.18a(b), 105.20a]	
JU 99.	Section 2.2.2.1 of the Mitigation Plan, Construction	The Impact Avoidance, Minimization, and Mitigation
	in Wetlands with Unsaturated Soils, conflicts with	Procedures provided in Attachment 11, Enclosure E, Part
	the rest of the application, which identifies that all	4 has been revised to indicate that temporary wetland
	wetland crossings will be crossed with mats or	matting will be used along the travel lane where any
	pads. Crossing unsaturated wetlands without timber	staging or work areas are proposed in wetlands regardless
	mats would contribute to soil compaction, rutting,	of the wetlands' saturated condition.
	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)]	

JU 100.	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	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 seed mixtures, invasive species
	and revise the E&S plans to indicate its use for wetland restoration in the Typical Wetland	control, monitoring, and reporting.
	Restoration detail. [25 Pa. Code §§105.13(e)(1)(ix),	
	105.14(b)(4), 105.14(b)(13)]	
JU 101.	The Alternatives Analysis states that the	The Alternatives Analysis in Attachment 11, Enclosure E,
	Alternatives Analysis is meant to be a summary of	Part 3 has been revised to provide a detailed analysis of
	major actions taken to avoid/minimize impacts. The	alternative routings, locations, and designs to avoid and
	Alternatives Analysis must be a detailed analysis of	minimize impacts and to provide documentation/evidence
	alternatives, including alternative locations,	that there are no practicable alternatives that would further
	routings, or designs to avoid or minimize adverse	avoid and minimize impacts.
	impacts and document and provide evidence that	
	there is no practicable alternative which would not	
	involve a wetland or that would have less adverse	
	impact on a wetland. In addition, for the project to	
	be water dependent as stated in the Alternatives Analysis, it must be based on the demonstrated	
	unavailability of any alternative route location, or	
	design or use of location, route or design to avoid	
	or minimize adverse impacts. Revise the	
	Alternatives Analysis to provide a detailed analysis	
	of alternative routings, locations, and designs to	
	avoid and minimize impacts and provide detailed	
	documentation and evidence that there are not	
	practicable alternatives which would further avoid	
	and minimize impacts. [25 Pa. Code	
	\$\\$105.13(e)(1)(viii), 105.14(b)(7), 105.18a(a)(2),	
	105.18a(a)(3), 105.18a(b)(2), 105.18a(b)(3)]	

	In addition, address the following specific comments regarding the Alternatives Analysis:	
JU 101.a.	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, microtunneling, 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)]	Consistent with 25 Pa. Code §§ 105.18a, the application has been revised to provide discussion and demonstration of why trenchless installation methods are not appropriate for the proposed water crossings. The Alternatives Analysis in Attachment 11, Enclosure E, Part 3, discusses practicable alternates to the proposed Project, including the consideration of alternative trenchless crossing techniques, and explains why trenchless installation methods are not appropriate. The Alternatives Analysis demonstrates compliance with 25 Pa. Code §§ 105.18a(a)(3) and 105.18a(b)(3).
JU 101.b.	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 previously provided discussed a routing alternative to the single EV wetland (L3) that was proposed to be impacted in Juniata County. However, based on DEP's comment (see comment JU 67), Wetland L3 has been demoted to non-EV status. Regardless, in the Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address other DEP comments.
JU 101.c.	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 Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	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)]	
JU 101.d.	The Alternatives Analysis in Route Variation 6 identifies that the pipeline has been re-routed to avoid installation of the pipes paralleling down the middle of the stream. Other stream impacts are proposed where the proposed pipes will parallel down the stream channel, where the stream flows in and along the pipes and ROW, and where streams begin within the proposed ROW; however, no information has been provided on why these impacts cannot be avoided and/or minimized through route changes. It appears that many of these areas can have impacts further avoided and minimized. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs, and methods to avoid and minimize impacts and which documents and provides evidence that other routes and designs would not further avoid or minimize impacts for the following streams: S-L12, and S-K69. [25 Pa. Code §§105.14(b)(7), 105.14(b)(4), 105.15(a)]	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 documents that there are no practicable alternatives that would further avoid and minimize impacts to streams: S-L12, and S-K69.

JU 101.e.	It appears that primary impacts and secondary	As demonstrated in the Alternatives Analysis, the Project
	impacts from the Temporary ROW and ATWS's	has been designed to avoid and minimize impacts to
	can be avoided by locating them outside the	wetlands and waterbodies (including streams and
	floodway of streams. Revise the application	floodways of streams) to the extent feasible. SPLP has
	accordingly to avoid and minimize impacts, or	narrowed the Project ROW from 75 to 50 feet at resource
	provide a detailed analysis of alternative routes,	crossings, and therefore necessarily relocated temporary
	designs and methods to avoid and minimize these	workspace (including Temporary ROW and ATWSs)
	impacts which documents and provides evidence	adjacent to streams (and/or floodways) in order to install
	that other routes and designs would not further	the pipeline effectively and to restore disturbed workspace
	avoid or minimize impacts. [25 Pa. Code	as efficiently as possible. Furthermore, the Project would
	§§105.13(e)(1)(viii), 105.14(b)(7)]	implement E&S controls during construction and primary
		and secondary impacts at these workspaces would be
		temporary in nature and restored to existing conditions.
		Please refer to Attachment 11, Enclosure D, Project
		Impacts for additional discussion.
JU 101.f.	It appears, but is not described in the application,	A stand-alone alternatives analysis document, which
	that HDD was assumed by the applicant to be the	presents the justification for the selected wetland and
	crossing method presenting the least potential	stream crossings that will be made by HDD, has been
	impact to water resources and aquatic species.	added to the application materials and is located in
	Revise the alternatives analysis to provide	Attachment 11, Enclosure E, Part 3. The alternatives
	justification for the selection of which water	analysis includes and incorporates relevant information by
	resource (streams and wetlands) crossings will be	reference presented in a stand-alone trenchless feasibility
	made by HDD. [25 Pa. Code §§105.14(b)(7),	assessment, which is located in Attachment 11, Enclosure
	105.18a(b)(3), 105.18a(a)(3), 105.13(e)(1)(viii)]	E, Part 3, Appendix C.
JU 101.g.	It appears that impacts to stream S-L12 and wetland	A minor shift of the pipelines to the south (within the
	L3 could be avoided and minimized by re-locating	same proposed ROW/workspace) has been incorporated
	the ROW further South, or locating the pipes South	into the construction design to allow for a more
	within the ROW. The alternatives analysis states	perpendicular crossing of Stream S-L12 and avoid
	that additional forest habitat would be impacted,	trenching in Wetland L3. A site-specific drawing is
	but does not identify what stream and/or wetland	available within the E&S Plan sheets provided in
	impacts could be avoided or minimized through	Attachment 12.
	this alternative and it does not discuss locating the	

JU 101.h.	pipes in a different location within the ROW. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]  It appears that the temporary impacts to wetland Q64 could be avoided by removing the temporary ROW or locating additional ROW or ATWS south of the proposed ROW. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	Wetland Q64 is a PEM wetland in an actively farmed agricultural field. It is plowed, planted, and harvested repeatedly. The proposed temporary workspace and ATWS are intended to provide room to segregate topsoil while installing the pipeline in the agricultural field, and are positioned where they are needed for this purpose. 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
JU 101.i.	It appears that impacts to stream S-K69 could be avoided and/or minimized by locating the proposed ROW further North of the confluence of S-K69 and S-K70 or if this is not practicable by locating the pipelines further North within the proposed ROW to avoid installation of a pipeline directly below and paralleling a portion of S-K69. 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	avoid and minimize impacts.  A minor shift of the proposed 16-inch pipeline to the north and the 20-inch pipeline to the south (within the same proposed ROW/workspace) has been incorporated into the construction design to avoid the confluence and cross Streams S-K69 and S-K70 nearly perpendicularly, to reduce and minimize trenching impacts to these streams. A site-specific drawing is available within the E&S Plan sheets provided in Attachment 12.

	would not further avoid or minimize impacts. [25	
	Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	
JU 101.j.	It appears that impacts to streams S-K58, S-K55,	The Alternatives Analysis in Attachment 11, Enclosure E,
	and S-K65 could be minimized by locating the	Part 3 has been revised The Alternatives Analysis in
	pipelines further north within the proposed ROW	Attachment 11, Enclosure E, Part 3 has been revised to
	and also cross streams at closer to right angles.	provide a detailed analysis of alternative routings,
	Revise the application accordingly to avoid and	locations, and designs to avoid and minimize impacts and
	minimize impacts, or provide a detailed analysis of	to provide documentation/evidence that there are no
	alternative routes, designs and methods to avoid	practicable alternatives that would further avoid and
	and minimize these impacts which documents and	minimize impact. Detailed stream area impact and
	provides evidence that other routes and designs	minimization assessments of streams S-K58 and S-K55
	would not further avoid or minimize impacts. [25	are provided in Appendix E of the Alternatives Analysis.
	Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	
JU 101.k.	It appears that impacts to streams S-K73, S-K72, S-	The Alternatives Analysis in Attachment 11, Enclosure E,
	K69 and S-K70 and wetlands Q64 and K58 could	Part 3 has been revised to provide a detailed analysis of
	be further avoided and minimized by extending the	alternative routings, locations, and designs to avoid and
	HDD under these resources. Revise the application	minimize impacts and documents that there are no
	accordingly to avoid and minimize impacts, or	practicable alternatives that would further avoid and
	provide a detailed analysis of alternative routes,	minimize impacts to wetlands Q64 and K58 and streams
	designs and methods to avoid and minimize these	S-K73, S-K72, S-K69, and S-K70 (Attachment 11,
	impacts which documents and provides evidence	Enclosure E, Part 3, Appendix D).
	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]	

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JU 102.	If any changes to the proposed route occur, revise all parts, components of the application to reflect these changes. This includes providing copies of the submission to and clearance from the PHMC, USFWS, PFBC, DCNR, and PGC. [25 Pa. Code §§105.13(e)(1), 105.21(a)(1)]	The attached summar obtained within the Attached 6B.
		With resconsider Pa. Code water ob application reference clearance 102 or C

The attached Application represents the proposed route, facilities and workspaces.

SPLP previously submitted a final request for determination letter from USFWS, PFBC, DCNR and PGC where the project was described consistent with the attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Clearances from all four agencies have been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9 and details provided in Attachment 6, Tab 6B.

espect to the PHMC, while DEP is required to er potential impacts to historic resources under 25 le Chapter 105 when DEP conducts reviews of a bstruction, encroachment or dam permit tion, none of the regulations or guidance ced in DEP's comment require SPLP to provide ce or approval from the PHMC as part of a Chapter 102 or Chapter 105 permit application. Furthermore, as noted in a letter from Alexandra C. Chiaruttini, Esq., DEP's Chief Counsel concerning the SPLP Pennsylvania Pipeline Project, "the [Pennsylvania] History Code does not authorize our agency or any Commonwealth agency to stop the processing of permits solely due to possible or actual presence of archaeological or historic resources, unless the agency's enabling legislation contains specific statutory authorization for such action. DEP does not have such authorization here." A copy of the February 1, 2016, letter from Ms. Chiaruttini is provided in

		Attachment 4. See also Pennsylvania History Code \$508(a)(4). Accordingly, SPLP requests that DEP continue its review of SPLP's applications.
		SPLP will continue to work with the PHMC to ensure that impacts to cultural resources are avoided where possible. In addition, SPLP has included with its Chapter 102 application a Cultural Resources Unanticipated Discovery Plan to be implemented during construction that outlines the protocols SPLP will follow if SPLP unexpectedly encounters archaeologic or historic resources, including notification to DEP and PHMC and cessation of earth disturbance.
JU 103.	Provide consistent and up-to-date plans to the Department and Lack Township. [25 Pa. Code § 105.21(a)(1) § 105.13(e)(1)(v) and (vi) § 105.13(e)(1)(i)(A) and (C)]	Updated site plans are provided in Attachment 7, Tab 7A as part of this submittal to DEP and in Attachment 14 as submitted to Lack Township.
JU 104.	Please respond to and address the comments from the Pennsylvania Fish and Boat Commission found on the attached sheet. Due to the number of crossings and time-of-year restrictions, the Department recommends identifying the time-of-year restrictions on the plans. [25 Pa. Code §§105.14(b)(4), 105.14(b)(6)]	To ensure contractor compliance, SPLP has developed a state-of-the-art web-based mapping applications that is required to be used by the contractor to determine all special environmental restrictions such as PNDI and trout stream restrictions. 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 are depicted. SPLP will implement a comprehensive Environmental Training and Inspection

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	program designed specifically to ensure contractors are
	appropriate notified and are adhering to such restrictions.

SPLP appreciates your timely review of the revision. Please contact Sandy Lare of Tetra Tech, Inc. with any questions at 716-849-9419, or email <a href="mailto:sandy.lare@tetratech.com">sandy.lare@tetratech.com</a>.

Sincerely, Tetra Tech, Inc.

Sandra J. Lare

Environmental Planner/Permitting Specialist

Sandra Hare

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.