

December 2, 2016

By FEDERAL EXPRESS

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

Re: DEP File E36-945

Technical Deficiency Response Chapter 105 Dam Safety and Waterway Management Joint Permit Application Sunoco Pipeline L.P. – Pennsylvania Pipeline Project (Mariner East II) Clay and West Cocalico Townships, Lancaster County

Dear Mr. Muzic:

On behalf of our client, Sunoco Pipeline L.P. (SPLP), Tetra Tech, Inc. provides the following responses to the Pennsylvania Department of Environmental Protection (DEP) Technical Deficiency letter dated September 6, 2016 regarding the Chapter 105 Joint Permit Application (Joint Permit Application) for the Pennsylvania Pipeline Project (Project or PPP as defined in the application). SPLP has had minor revisions to the proposed workspaces since submittal of the original application. These revisions have occurred as result of preparing a response to these technical deficiencies, landowner requests, further reduction of impacts to aquatic resources, or minor limit of disturbance (LOD) changes to facilitate construction. The supporting attachments represent a revision of the Joint Permit Application that not only addresses the DEP's technical deficiencies, but also provides revised sections that reflect the most current Project areas. You will find the attachment to be a complete application: however, it excludes previously submitted aquatic resource reports. Please consider only the previously submitted aquatic resource reports as part of this application revision. We are providing two hard copies and two 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 2

LA 1	Comprehensive Environmental Evaluation -	NA - Heading
	The following technical deficiencies are related	1111 110001119
	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:	
LA 1.a	Use the Environmental Assessment Form	A Comprehensive Evaluation of Compliance and an
	(3150-PM- BWEW0017, 2/2013) as a guide	evaluation of Resources Identification and Project Impacts
	and provide a detailed narrative and other	for the Project as a whole have been added to the
	appropriate documentation that	application materials and is located in Attachment 11,
	comprehensively evaluates the project as a	Enclosure E, Parts 1 and 2. This Comprehensive
	whole under each of the categories therein (Part	Evaluation of Compliance references application
	1 – Resource Identification; Part 2 – Project	materials that apply to each requirement pursuant to 25
	Description – including all the analyses listed in	Pa. Code § 105.18a and associated referenced regulations,
	the form, as well as in 25 Pa. Code §§	including 25 Pa. Code §§ 105.13(e)(1)(vii-x), (2), (3), (g),
	105.13(e)(1)(vii-x), (2), (3), (g), and (j); and 25	and (j); and 25 Pa. Code § 105.15.
	Pa. Code § 105.15.	
LA 1.b	The Comprehensive Environmental Evaluation	A Comprehensive Evaluation of Compliance for the entire
	should also provide a detailed narrative and	Project has been added to the application materials and is
	other appropriate documentation that	located in Attachment 11, Enclosure E, Part 1. This
	comprehensively evaluates the project as a	Comprehensive Evaluation of Compliance references
	whole for compliance with the requirements	application materials that apply to each requirement
	associated with the Department's review of the	pursuant to 25 Pa. Code § 105.18a and associated
		referenced regulations, including 25 Pa. Code § 105.14.

	application listed in 25 Pa. Code § 105.14 in its	
	entirety, with particular emphasis on:	
LA 1.b.i	Antidegration Analysis - Prepare and submit an analysis and information that addresses consistency with State antidegradation requirements contained in Chapters 93, 95 and 102 (relating to water 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).	An Antidegradation Analysis consistent with 25 Pa. Code § 105.14(b)(11) has been prepared and is provided in Attachment 11, Enclosure E, Part 5.
LA 1.b.ii	Secondary Impact Analysis – Prepare and submit an analysis and information that addresses secondary impacts associated with but not the direct result of the construction or substantial modification of the water obstruction or encroachment in the areas of the entire project and in areas adjacent thereto and future impacts associated with water obstructions or encroachments, the construction of which would result in the need for additional dams, water obstructions or encroachments to fulfill the project purpose. 25 Pa. Code § 105.14(b)(12).	A Secondary Impact Analysis consistent with 25 Pa. Code § 105.14(b)(12) has been prepared and is provided in Attachment 11, Enclosure E, Part 2.
LA 1.b.iii	iii. Project Wide Cumulative Impacts Analysis. Prepare and submit an analysis and information that addresses the cumulative impact for this entire project and other potential or existing projects. As part of this analysis please evaluate whether numerous piecemeal changes	A stand-alone cumulative impacts assessment document has been added to the application materials and is located in Attachment 11, Enclosure E, Part 6.

	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.	
LA 1.b.iv	Comprehensive Evaluation of Compliance with	A Comprehensive Evaluation of Compliance for the
	25 Pa. Code § 105.18a. Prepare and submit an	Project has been added to the application materials and is
	analysis and information that evaluates the	located in Attachment 11, Enclosure E, Part 1. This
	project as a whole with all the requirements	Comprehensive Evaluation of Compliance cross-
	found in 25 Pa. Code § 105.18a for each	references the application materials that address each
	wetland or wetland complex in or along the	requirement in 25 Pa. Code § 105.18a.
	project area as a whole. 25 Pa. Code § 105.18a.	
LA 1.b.v	Comprehensive Alternatives Analysis,	A comprehensive Alternatives Analysis has been added to
	Avoidance and Minimization and Mitigation.	the application materials to address this comment and is
	The applicant needs to demonstrate, that the	located in Attachment 11, Enclosure E, Part 3. A
	alternative/s chosen for the entire project will	Cumulative Impacts Analysis has been added to the
	avoid cumulative impacts to the maximum	application materials to address this comment and is
	extent practicable, and where such impacts are	located in Attachment 11, Enclosure E, Part 6. An Impact
	not avoidable, describe in detail with	Avoidance, Minimization, and Mitigation Procedures
	appropriate supporting documentation, how	document has also been added to address this comment,
	such impacts will be minimized and mitigated	located in Attchment 11, Enclosure E, Part 4.
	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.]	
LA 2	The HDD Inadvertent Return Contingency Plan	The revised IR Plan provided in Attachment 12, Tab 12C
	includes profiles identifying Geotechnical	includes an IR risk assessment for each of the HDDs.

	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)]	
LA 2.a	Provide information/details on previous HDD	An HDD Risk Assessment is included as part of the
	activities on the prior Mariner East pipeline	revised Inadvertent Return Assessment, Prevention,
	project where IRs occurred. At a minimum this	Preparedness and Contingency Plan (IR Plan) provided in
	should include, a topographic map with	Attachment 12C. The assessment discusses previous
	locations and latitude/longitude of each	inadvertent returns (IR) and provides the data and analysis
	occurrence, description of event, amount of	requested (see Appendix C of IR Plan).
	discharge, whether the discharge entered	
	waterways and/or wetlands, mitigation/clean-up	
	measures taken, etc.	
LA 2.b	A stand-alone attachment should be created to	Water supply impacts have been analyzed and addressed
	address the pre-boring geologic evaluation of	within three supplemental plans to the PPC Plan: the
	the existence and potential to impact local	Water Supply Assessment, Preparedness Prevention and
	drinking water supplies or aquifers around the	Contingency Plan, the IR Plan, and Void Mitigation Plan
	boring location. The plan needs to include what	for Karst Terrain and Underground Mining. These
	measures will be employed to verify that no	supplemental plans are provided in Attachment 12. The
	supplies or aquifer are impacted (i.e. pre and	Water Supply Plan provides for the assessment of the
	post water quality and quantity analysis). The	existing public and private water supplies in or along the
	plan should specify what notifications and	Project, as well as identifies prevention and preparedness
	remediation measures will be employed if there	measures to be implemented to protect those
	are impacts.	supplies. The IR Plan outlines the preconstruction
		activities implemented to ensure sound geological features
		are included in the drill profile, the measures to prevent

		impact, and the preparedness plan if an impact were to occur. These plans are provided in Attachment 12.
LA 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.
LA 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.
LA 5	List the types and amounts of emissions to satisfy question 13.0.1 of the General Information Form. [1300-PM-BIT0001 5/2012 Instructions]	Question 13.0.1 of the General Information Form in Attachment 1 has been revised to address this comment.
LA 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	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

	persons exercising primary responsibility for	of the partnership is provided with the Joint Application
	the dam or reservoir, water obstruction or	Form of the Application.
	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)]	
LA 7	Provide a PNDI search clearance letter from the	The PGC provided clearance by letter dated June 8, 2016.
	Pennsylvania Game Commission for threatened	A copy of this letter is provided in Attachment 6, Tab 6B.
	and endangered species under their jurisdiction.	
	[25 Pa. Code §§105.15(a), 105.14(b)(4),	
	105.16(c)(3)]	
LA 8	Provide clearance or approval from the	While DEP is required to consider potential impacts to
	Pennsylvania Historical and Museum	historic resources under 25 Pa. Code Chapter 105 when
	Commission (PHMC) for cultural,	DEP conducts reviews of a water obstruction,
	archeological, and historic resources for the	encroachment or dam permit application, none of the
	proposed water obstructions and encroachments	regulations or guidance referenced in DEP's comment
	and areas necessary to construct the water	require SPLP to provide clearance or approval from the
	obstructions and encroachments. [25 Pa. Code	PHMC as part of a Chapter 102 or Chapter 105 permit
	§§105.13(e)(1)(x), 105.14(b)(5), 105.15(a),	application. Furthermore, as noted in a letter from
	105.14(b)(4)]	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.
LA 9	The project description provided in the Cultural Resource Notice states that the second pipeline is to be installed within 5 years of the first pipeline. The project description provided in the application does not discuss this timeframe. Regarding this item: Revise the application to discuss if the pipelines will be installed at the same time, or on different schedules. [25 Pa. Code §§105.13(e)(1)(iii)(A), 105.13(e)(1)(iii)(B), 105.301(7), 105.15(a), 105.14(b)(4), 105.18a, 105.21(a)(1), 105.13(e)(1)(ix)]	The Project Description in Attachment 9 to the Application has been updated to reflect the timing of the installation of the 20-inch and the 16-inch pipeline. The two pipelines will be installed during the same time period, with the 20-inch pipeline preceding the 16-inch pipeline. For safety purposes, the installation would be staggered by what is estimated to be no more than 60 days. At some HDDs with longer drills, however, the time period between installation of the two pipelines may exceed 60 days. Both pipelines will be installed within the same limit of disturbance so there would be no additional, temporary disturbance resulting from a second separate installation. Any temporary stabilization required

		would be implemented in accordance with Project's E&S Plans.
LA 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.
LA 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.
LA 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.
LA 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 Project Description in Attachment 9 to the Application has been updated to reflect the timing of the installation of the 20-inch and the 16-inch pipeline. The two pipelines will be installed during the same time period, with the 20-inch pipeline preceding the 16-inch pipeline. 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.
Provide a detail that shows how flumes or other	Temporary crossings of streams are accommodated by
in-stream supports are used for temporary	installation of the timber mat, culvert, or railcar
stream crossings as mentioned in the	equipment bridges as detailed by the standard typical
Temporary Stream Crossing detail and identify	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.
Provide site plans that depict proposed work for	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
1 1 -	be consistent with the duration of construction.
	All drawings and maps provided in the application have
example the auger bore drawings, state that the	been revised to remove this language and are considered
	to be final plans.
issued and must be followed. Remove this	
	in-stream supports are used for temporary stream crossings as mentioned in the Temporary Stream Crossing detail and identify where each method will be used. [25 Pa. Code §§105.13(g)] 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)] A number of drawings in the package, for example the auger bore drawings, state that the plans are for permitting purposes only. The plans, specifications and reports in the application are part of a permit once a permit is

LA 13	The overal have drawing a reference	The Ducient Description and in Attacher and O
LA 13	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)]	
LA 14	Where cathodic protection is proposed to be	Design of the cathodic protection and alternating current
	installed in wetlands or other areas where	mitigation systems for the Project will be completed after
	vegetation is proposed to be undisturbed or	the pipeline is installed. It is typical to design cathodic
	replanted, identify how this cathodic protection	protection after pipeline installation as location, sizing,
	will be maintained and replaced without	and density depends on current testing that cannot occur
	vegetative disturbance. [25 Pa. Code	until the pipeline is installed. However, these activities
	§§105.15(a), 105.13(e)(1)(ix), 105.18a]	will be located outside of waters of the Commonwealth.
		In the unlikely event additional LOD is required,
		modification to existing permits will be sought and
		appropriate agency clearances obtained. The Project
		Description provided in Attachment 9 includes a narrative
		outlining SPLP's cathodic protection plans.
LA 15	For all Bore and HDD locations, identify where	To reduce overall impacts to the landscape and, in
	all pipe pull back, or assembly, or other areas	particular, wetlands and streams, pullback areas are sited
	where the pipe will be laid out, and where all	within the same workspaces designed for the open cut
	construction and staging areas are located.	installation of the pipeline to the maximum extent
	Identify any temporary crossings or impacts for	practicable. Pullback areas not proposed within the
	these areas to streams, wetlands, and	workspaces needed to install the pipelines via open cut are
	floodways. Revise the application accordingly	accommodated by adding Additional Temporary
	to include these impacts, including site-specific	Workspace (ATWS), as shown on the Aerial Site Plans
	plans depicting the impacts and proposed	(Attachment 7). Although avoided to the maximum
	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.
		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.
LA 16	The site plan sheets and E&S plan sheets	In absence of a FEMA NFHL Floodway, the PA 50-foot
	identify the floodway which appears to be	floodways have been created by buffering the stream on
	measured from the centerline of the stream as	each side of its centerline by one-half the bank width of
	opposed to measuring from the top of bank for	the stream at the crossing plus 50 feet. For example, a
	the 50-feet assumed floodway boundary.	stream that has a 5-foot bank width would be buffered by
	Provide floodway boundaries on all plan	52.5 feet on each side the stream's centerline, to ensure
	drawings that adhere to the definitions in	both the bank width and the 50-foot setback from the bank
	Chapter 105 by providing the FEMA mapped	was encapsulated within the Chapter 105 floodway, as per
	floodway boundary, in areas absent a FEMA	the definitions identified in Chapter 105. FEMA NFHL
	mapped floodway, the floodway boundary	data was downloaded and re-analyzed for this Project on
	measured 50 feet landward from the top of	September 27, 2016. The 105 and 102 E&S Plans have
	bank, or in areas absent a FEMA mapped	been checked to assure consistent presentation of these
	floodway a floodway boundary with evidence	areas.
	provided that the assumed 50 feet floodway is	
	not accurate. [25 Pa. Code	
	§§105.13(e)(1)(i)(A), 105.1]	
LA 17	The Typical Wetland Crossing detail on the	The standard typical detail has been revised to show
	E&S plans indicates soil will be stockpiled in	topsoil segregation. The standard typical detail also notes
	the wetland along the trench. Revise the detail	that topsoil and wetland spoils are to have a physical
	to include a means of separating the stockpiled	separation to ensure full restoration and to minimize
	soil from the wetlands, such as geo-fabric and	

	matting, to ensure that stockpiled soil will be	impacts. Separation may be achieved by geo-fabric,
	completely removed and impacts will be	physical space, or matting.
	minimized. [25 Pa. Code §§105.423,	
	105.18a(a), 105.18a(b), 105.15(a),	
	105.14(b)(4), 105.14(b)(11), 105.14(b)(13)]	
LA 18	The typical wetland crossing details shown on the E&S plans indicates trench breakers are to be installed in the trench in the wetlands; however it is not clear what trench breakers are or whether trench plugs are intended. Revise this detail to identify whether trench plugs are intended by this term or provide a detail for trench breakers. In addition, if trench plugs are proposed to maintain wetland 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) &	The standard typical detail on the E&S plans has been revised to better detail ditch trench plug installation (Attachment 12). Additionally, the trench plugs have been moved to the outside of the wetland boundaries and a note added that additional trench plugs will be installed for long open-cut wetland crossings. The project's Environmental Compliance Program team will ensure appropriate spacing.
	§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)]	
LA 19	Installation of the trench plugs as depicted in	The typical standard trench plug detail provided within
	the Trench Plug Detail is likely to result in	the E&S Plan provided in Attachment 12 has been revised
	adverse impacts to the hydrology of waters of	to show the trench plug continuing to the bottom of the
	the Commonwealth. Provide a revised detail	trench.

	showing the trench plug continuing to the	
	bottom of the trench instead of ending at the top	
	of the bedding material. [25 Pa. Code	
	§§105.18a, 105.15(a)]	
LA 20	The Typical Wetland Crossing detail on the	The note for this standard typical detail has been removed
	E&S plans states that the detail does not apply	so that the detail is applicable to all wetland crossings.
	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)]	
LA 21	Provide a description of the expected duration	The temporary stream crossings will remain in place for
	each temporary stream crossing will remain in	no greater than one year.
	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)]	
LA 22	Identify the proposed provisions for shut-off in	The revised Project Description provided in Attachment 9
	the event of break or rupture for each crossing.	discusses block valves, their location, and the siting
	Provide locations and description of how this	criteria that provides shutoff provisions. Valves are shut
	action will be completed in the event a break or	off remotely or manually. Block valves are also depicted
	rupture occurs. [25 Pa. Code § 105.301(9)]	on the aerial site plans provided in Attachment 7, Tab 7A.
LA 23	Provide county specific information within the	The Project Description is intended to encompass the
	project description. [25 Pa. Code	Project as a whole; however, it has been revised to include
	§§105.13(e)(1)(iii)]	some additional county-specific information. Other
		components of the application, particularly Attachment 11
		(Aquatic Resources Tables 1 through 4, provide detailed
		information specific to the resources and impacts in the
		county.
LA 24	Amend Section C of the Application to identify	Section C of the Application Form has been updated to
	the size of the proposed second pipeline. Other	describe the second line as 16 inches in diameter.

	areas in the application indicate a 16-inch pipe is to be used, but Section C describes a pipe that is up to 20-inch diameter. [25 Pa. Code	
LA 25	§§105.13(e)(1)(iii)(A)] Section F of the Application indicates the professional engineer's seal and certification is N/A. Plans, specifications and reports accompanying applications for any water obstructions or encroachments which would pose a threat to human life or a substantial potential risk to property shall be affixed with seal and signature of a registered professional engineer. The seal and certification for Chapter 105 are provided in Tab 7. Remove the N/A label from Section F. [3150-PM-BWEW0036A	The N/A label has been removed from Section F of the Application.
LA 26	Rev. 3/2013 Instructions] Provide the letters of approval from PA American Water and Ephrata Area Joint Authority and update Question 16.0.2 of the GIF. [1300-PM-BIT0001 5/2012 Instructions]	The water suppliers listed in question 16.0.2 of the GIF are those preliminarily identified as potential temporary water suppliers to facilitate hydrostatic testing. The PPC Plan in Attachment 12, Tab 12A has been supplemented with a Water Supply Assessment, Preparedness Prevention and Contingency Plan (Attachment 12, Tab 12B), which addresses all correspondence with water and sewer authorities, including letters to the PA American Water and Ephrata Area Joint Authority. The GIF question has been updated, and final agreements between the contractor and the water supplier can be supplied once they are in place. The Project does not require any permanent water supplies.

I A 27	Danalatiana 25 Da Carla Cartiana 265 51 and	The DDC Discours Associated 12 Tele 12 A hear hear
LA 27	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	regulations where necessary.
	proper compliance. [25 Pa. Code	
	§105.21(a)(1); §91.33(b)]	
LA 28	The following comments pertain the USFWS'	NA - Heading
	Bog Turtle determination of not likely to	
	adversely affect:	
LA 28.a	Provide a copy of the April 2016 Bog Turtle	The April 2016 Bog Turtle Conservation Plan is provided
	Conservation Plan referenced in the USFWS'	in Attachment 6.
	June 24, 2016 letter. [25 Pa. Code	
	§§105.14(6)(4), I05.18a(a)(1), 105.18a(a)(5)]	
LA 28.b	Provide copies of any additional information	Any additional information submitted to USFWS is
	submitted to the USFWS for determination of	provided within Attachment 6.
	affect. [25 Pa. Code §§105.14(b)(4),	
	105.18a(a)(1), 105.18a(a)(5)]	
LA 28.c	The February 29, 2019 Bog Turtle	Zone 2 will be hand cleared in accordance with the
	Conservation Plan states that Zone 2 will be	revised letter received from the USFWS dated October
	mowed; however, the June 24, 2016 USFWS	31, 2016. The revised April 2016 conservation plan states
	letter states that this area is to be hand cleared.	the same "Hand clearing within the Zone 2 areas will only
	Clarify the discrepancy between the two dates.	occur between October 1 and March 31 to avoid impacts
	[25 Pa. Code §§105.14(b)(4), 105.18a(a)(1),	to individual bog turtles."
	105.18a(a)(5)]	
LA 28.d	Identify the location of Zone 2 on the plan	Zone 2 is stated within the conservation plan and the
	drawings. [25 Pa. Code §§105.14(b)(4),	USFWS October 31 letter as being 300 feet from the edge
	105.18a(a)(1), 105.18a(a)(5)]	of Wetlands (in Lancaster County = A54 and A55). The
	150.150(0)(1), 150.150(0)(0)1	conservation plans are to be strictly adhered to and
		SPLP's Environmental Compliance Program as described
		in Impact Avoidance, Minimization, and Mitigation
		Procedures provided in Attachment 12, Enclosure E, Part
		1 locedures provided in Attachment 12, Enclosure E, Part

		4 provides the assurances for compliance with the Project's conservation measures.
LA 28.e	Revise the plans to clearly identify the specific avoidance measures in the June 24, 2016 USFWS letter and indicate that they will be followed. [25 Pa. Code §§105.14(b)(4), 105.18a(a)(1), 105.18a(a)(5)]	The PNDI Agency determination letter, and all subsequent correspondence, and associated conservation plans are to be strictly adhered to. SPLP's Environmental Compliance Program as described in Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 12, Enclosure E, Part 4 provides the assurances for compliance with the Project's conservation measures wherever they occur.
LA 28.f	The USFWS' June 24, 2016 letter states that a Sunoco identified measure of "ensure the HDD will be in bedrock prior to drilling beneath the wetlands by utilizing the information provide in the geotechnical reports" for wetlands A54 and A55. However, the site specific HDD drawings and profiles identity that the proposed pipelines are not proposed to be installed below the depicted "Approximate Bedrock" location.	A follow up meeting with USFWS was held on August 10, 2016. This meeting resulted in minor modifications to this HDD including increased depth in approximate bedrock. The revised HDD drawing is included in Attachment 7, Tab 7B and was submitted to the USFWS in correspondence dated August 19, 2016 (see Attachment 6).
	Revise the plan drawings to be consistent with the USFWS approval. In addition, provide assurance that the pipelines will be installed in bedrock at least 10 feet before drilling beneath and 10 feet after passing underneath wetlands A54 and A55. [25 Pa. Code §§105.14(b)(4), 105.18a(a)(1), 105.18a(a)(5)]	
LA 29	A water obstruction and encroachment permit may be required for the proposed water withdraws and discharges. [25 Pa. Code §§105.3(a)(4), 105.11(a), 105.13(e)(1)(i),	There are no water withdrawals in Lancaster County. SPLP has obtained the Project's DEP PAG-10 General NPDES Discharge Permits (Authorization ID No. PAG1106869 and PAG1105897) to allow discharge of

	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)]	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
		information such as discharge details are included in the Chapter 102 E&S drawings which are referenced in the Chapter 105 drawings.
LA 29.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.	See response to LA 29 above.
LA 29.b	Revise the impact tables to include these impacts.	Tables 2, 3, and 4 provided in Attachment 11 have been revised to accommodate changes in workspace and requests in other comments received from DEP.
LA 29.c	Provide a description and plans of how the water will be discharged or withdrawn, the discharge capacity, the withdraw rate, the methods to be utilized, what equipment and structures are proposed to be placed and utilized	See response to LA 29 above.

	in waters of the commonwealth, the length of time obstructions will remain in place.	
LA 29.d	Provide cross sections, profiles, and hydraulic analysis for all piping placed in existing stream culverts and along and within stream channels.	There are no water withdrawals in Lancaster County; therefore no piping associated with this activity will be placed in existing stream culverts or along/within stream channels in Lancaster County.
LA 29.e	Revise the Environmental Assessment to discuss the impact of the water obstructions and water withdraws from the obstructions on the resources. Where approval is being obtained from the Susquehanna River Basin Commission (SRBC), provide approval from the SRBC for the water withdraws if available.	There are no proposed water withdrawals in Lancaster County for the Project; therefore, no direct impact on resources in Lancaster County will result from such activities. Attachment 11, Enclosure D has been revised to make this statement.
LA 29.f LA 29.a in ltr	Provide documentation of submission of proposed water obstructions and encroachments for these activities to each jurisdictional (PHMC, USFWS, PAFBC, PGC, DCNR) agency and provide clearance from these agencies.	SPLP previously submitted a final request for determination letter from USFWS, PFBC, DCNR and PGC where the Project was described consistent with the attached Application, the consultation history was summarized, and survey reports and mapping (including GIS files) were provided referencing the most current alignment. Copies of these final requests have been submitted, and clearances from all four agencies have been obtained and the conditions of those clearances outlined within the revised Project Description located in Attachment 9. Copies of the submissions are located in Attachment 6.
		While DEP is required to consider potential impacts to historic resources under 25 Pa. Code Chapter 105 when DEP conducts reviews of a water obstruction, encroachment or dam permit application, none of the regulations or guidance referenced in DEP's comment

		require SPLP to provide clearance or approval from the PHMC as part of a Chapter 102 or Chapter 105 permit application. Furthermore, as noted in a letter from Alexandra C. Chiaruttini, Esq., DEP's Chief Counsel concerning the SPLP Pennsylvania Pipeline Project, "the [Pennsylvania] History Code does not authorize our agency or any Commonwealth agency to stop the processing of permits solely due to possible or actual presence of archaeological or historic resources, unless the agency's enabling legislation contains specific statutory authorization for such action. DEP does not have such authorization here." A copy of the February 1, 2016, letter from Ms. Chiaruttini is provided in Attachment 4. See also Pennsylvania History Code §508(a)(4). Accordingly, SPLP requests that DEP continue its review of SPLP's applications. SPLP will continue to work with the PHMC to ensure that impacts to cultural resources are avoided where possible. In addition, SPLP has included with its Chapter 102 application a Cultural Resources Unanticipated Discovery Plan to be implemented during construction that outlines the protocols SPLP will follow if SPLP unexpectedly encounters archaeological or historic resources, including notification to DEP and PHMC and cessation of earth disturbance.
LA 30	Provide a registered professional engineer's	This signed certification has been added to the Attachment 16 documents.
	seal and signed certification, in accordance with \$106.12(g), which shall read as follows:	Attachment 10 documents.

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	"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)]	
LA 31	Revise the application plans to include all	To ensure contractor compliance, SPLP has developed a
	avoidance and minimization measures for	state-of-the-art web-based mapping applications that is
	identified species of concern associated with	required to be used by the contractor to determine all
	water 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 a summary table in the Project
	Resources, and the U.S. Fish and Wildlife	Description, Attachment 9, within the PNDI agency final
	Service. Ensure any seed mixtures, matting, or	determination letters in Attachment 6, and the accepted
	other specified items are included in the plans	Conservation Plans in Attachment 6, Tab 6B. The same
	and/or E&S plans. In addition, revise the	notes in the Project Description are reflected within the
	Environmental Assessment to discuss the	E&S Plan notes. Trout stream restrictions and other
	avoidance and minimization measures and	sensitive species restrictions are also noted on aerial site
	clearances received. [25 Pa. Code §§105.15(a),	plans and E&S Plans, however due to the sensitive nature
	105.14(b)(4), 105.16(c)(3)]	of some of the information, not all is depicted. SPLP will

		implement a comprehensive Environmental Training and Inspection program designed specifically to ensure contractors are appropriate notified and are adhering to such restrictions.
LA 32	Page 9 of Tab 18 indicates that there will only be one temporary travel lane or access road across a stream. The aerial plans in Tab 7A do not identify the location of this proposed access. Provide plans that depict the proposed temporary lanes. [25 Pa. Code §§105.13(e)(1)(i)(C)]	No more than one temporary travel lane/access road across each stream and wetland will be needed. The temporary travel lane will be located within the proposed Limits of Disturbance, which correspond to the same 50-foot-wide permanent ROW (red lines) that represent workspace area, on the Aerial Site Plan drawings (in Attachment 7, Tab 7A). The temporary travel lane will be within the same area already accounted for in the aquatic resources impact tables in Attachment 11. The Aerial Site Plans do not specifically show the matted travel lane, but they are shown on E&S Plan Drawings in Attachment 12.
LA 33	There are certain portions of streams where the pipeline is located less than the minimum 25 feet away from the stream bank. These portions are near hard meanders thereby increasing the potential for exposure during stream migration. Identify and provide adequate erosion protection at these locations, or move the proposed pipes 25 feet away from the stream bank. Natural vegetative stabilization or natural stream design structures should be considered first to avoid and minimize impacts. [25 Pa. Code §§105.314]	Erosion protection is not necessary because the pipeline will be buried below streams in accordance with DEP regulations. 25 Pa. Code §105.313 requires that pipelines under stream beds must be buried at least 3 feet deeper than existing grade, which includes the lowest point in the stream bed. As set forth in the Application, SPLP has committed to burying the pipeline 5 feet below existing stream beds. Where the pipeline is within 25 feet of streams, or where streams are within the Permanent ROW, the depth of cover is designed to avoid and minimize the risk of exposure due to stream migration. The pipeline is also inspected regularly to meet PHMSA regulations. Inspections include the identification of exposures. The Alternative Analysis (Attachment 11, Enclosure E, Part 3) demonstrates that

		the pipeline is sited in the most environmentally protective route. Site-specific plans are provided as part of the E&S Plan sheet set for these crossing types and provide bank stabilization BMPs.
LA 34	There are plan sheets in Tab 7A with streams that do not show enough information beyond the temporary right-of-way (ie. Floodway delineation, stream orientation, and hydrologic connections) to properly evaluate the proposed impacts. Provide a better depiction of the streams outside of the proposed temporary rights of way. [25 Pa. Code §§105.13(e)(1)(i)(A)]	The plans in Attachment 7, Tab 7A provide the delineation of resources beyond the LOD. Delineations were performed on a 200-foot-wide survey corridor. Reroutes and Project changes were also field-delineated and delineations occurred beyond the Project areas to capture adjacent resources.
LA 35	The site specific drawings reference "Stream Restoration" but no detail or plan for this stream restoration has been provided. Provide a plan for the stream restoration referenced in the site specific drawings. In addition, clarify if this will be utilized at additional stream crossings or not and identify the crossings where it will be utilized. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.13(e)(1)(i)(C), 105.311(2), 105.15(a)]	The site specific drawings provided within the E&S Plan sheet set in Attachment 12 have been increased in number to cover additional stream crossings, and have been updated to include a stream restoration plan drawing, including plan and profile views and notes. The site-specific plans are specific to the crossing.
LA 36	The ATWS area in the floodway of Stream S-B82 on Sheet 9 of Tab 7A is designated for spoil; however a plan depicting the location of the spoil in conjunction with E&S controls could not be found. Provide plans that demonstrate proper measures to minimize the potential for discharge of fill material to the stream. [25 Pa. Code §§05.13(g)]	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict the spoil location and protection measures to be implemented when spoil is located within uplands (which would include the floodway), and 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.

LA 37	It does not appear that the temporary floodway impacts to Stream S-B82 are correctly	The impacts calculated for the temporary impact to stream S-B82 have been updated in the revised application. The
	identified. Plan Sheet 9 of Tab 7A indicates	revised application correctly displays and calculates
	temporary impacts over 5,000 square feet including the temporary ROW and ATWS	impacts to stream S-B82.
	areas. Clarify this discrepancy. [25 Pa. Code	
	\$\\$105.21(a)(1)]	
LA 38	Stream S-A88 on Sheet 8 of Tab 7A indicates	The impacts calculated for stream S-A88 are
	temporary floodway impacts, but there are none shown on either Sheet 8 or Sheet 9. Clarify this discrepancy. [25 Pa. Code §105.21(a)(1)]	representative of the impacts to the shared floodway with stream S-A87.
LA 39	The ATWS area in the floodway of Stream S-B10 on Sheet 12 of Tab 7A is designated for	A standard typical detail has been added to the E&S Plan sheet set located in Attachment 12 to depict protection
	spoil; however a plan depicting the location of	measures to be implemented when spoil is located within
	the spoil in conjunction with E&S controls	uplands (which would include the floodway), and
	could not be found. Provide plans that	wetlands. Where applicable, standard typical details for
	demonstrate proper measures to minimize the	stream crossings found within the E&S Plan located in
	potential for discharge of fill material to the stream. [25 Pa. Code §§105.13(g)]	Attachment 12 also depict protection measures for spoil.
LA 40	It does not appear that the temporary floodway	The impacts calculated for the temporary impact to stream
	impacts to Stream S-B12 are correctly	S-B12 have been updated in the revised application. The
	identified. Plan Sheet 12 of Tab 7A indicates	revised application correctly displays and calculates
	temporary impacts of almost 4,000 square feet	impacts to stream S-B12.
	including the temporary areas. Clarify this	
	discrepancy. [25 Pa. Code §105.21(a)(1),	
T A 41	105.15(a)]	
LA 41	Temporary floodway impacts are depicted with	The impacts calculated for the temporary impact to stream
	the temporary ROW for Stream S-B13 on Sheet	S-B13 have been updated in the revised application. The
	13, but the temporary floodway impacts are listed as 0. Clarify this discrepancy. [25 Pa.	revised application correctly displays and calculates impacts to stream S-B13.
	Code §105.21(a)(1), 105.15(a)]	impacts to stream 5-D13.
	Code 5103.21(a)(1), 103.13(a)]	

LA 42	Temporary floodplain impacts for Stream S-A82 on Sheet 6 of Tab 7A are listed as zero; however, temporary right-of-way is depicted within the floodplain, and Table 4 of Tab 11 indicates that the floodplain crossing method	The impacts were incorrectly attributed to stream S-A82 because this HDD path also has some Permanent ROW associated with it. The revised application correctly displays and calculates impacts to stream S-A82.
	includes open cut. Clarify this discrepancy. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C)]	
LA 43	The ATWS in the floodplain of Stream S-J59 on Sheet 4 of Tab 7A does not describe the type of equipment or spoil designated for the area, or what the duration of the ATWS will be. [25 Pa. Code §§105.13(e)(1)(i)(C)]	This ATWS in the floodplain of S-J59 will be used primarily for spoil storage to support the bored crossing of Wetland J-54 (associated with Stream S-J59), i.e., to store spoil temporarily excavated from the bore pit. The boring equipment will operate along the pipeline centerline location in the permanent ROW workspace, not the ATWS. The spoil will be stored in the ATWS for only as long as the bore activities are in progress, after which, the spoil will be restored to backfill the bore pits. This ATWS will support this trenchless method of pipeline installation and enable the stream S-J59 and PSS wetland J-54 to remain undisturbed by construction.
LA 44	The ATWS in the floodplain of Stream S-K35 on Sheet 3 of Tab 7A does not describe the type of equipment or spoil designated for the area, or what the duration of the ATWS will be. [25 Pa. Code §§105.13(e)(1)(i)(C)]	This ATWS in the floodplain of S-K35 will be used primarily for equipment and activities to support the HDD crossing of Wetland S-K35 (Cocalico Creek) and associated wetland K-32. Although the HDD equipment will likely operate along the pipeline centerline location in the permanent ROW workspace (not the ATWS), the activities in this ATWS area may include equipment to support the HDD, spoil storage, worker vehicle parking, and staging of emergency supplies. The ATWS will only be actively needed/used for only as long as the HDD activities are in progress, after which, the area will be

		restored and seeded. This ATWS will support this trenchless method of pipeline installation and enable the stream S-K35 and wetland K-32 remain undisturbed by construction.
LA 45	The Preface and Section 5 of the PPC plan state that spill prevention or notification is not required; however, spill prevention is described in Section 3.0 of the PPC plan. Furthermore, Section 5.3 of the PPC plan does not require notification of downstream users. Provide information that supports the statements that spill prevention and downstream user notification are not required. [25 Pa. Code §§105.21(a)(1), 105.13(g)]	The PPC Plan has been revised to provide notification of downstream users. In addition, to supplement the PPC Plan, a Water Supply Assessment, Prevention, Preparedness, and Contingency Plan and Inadvertent Return Assessment, Prevention, Preparedness, and Contingency Plan (IR Plan) is provided in Attachment 12 which provide the appropriate notification procedures. Although spill and leak prevention and response procedures are addressed in this plan, the Project does not propose aboveground storage tank facilities with a total aboveground capacity greater than 21,000 gallons of regulated substances; therefore, this Project does not require SPLP to develop and submit a "Spill Prevention Response" (SPR) Plan to DEP pursuant to The Storage Tank and Spill Prevention Act (Act 32 of 1989).
LA 46	Table 3 of Tab 11 and the stream data sheet for Stream S-A81 indicate that the bank to bank width is 2 feet, but Table 1, page 1, and page 3-9 of the Aquatic Resource Report indicate 1.5 feet. Clarify this discrepancy. [25 Pa. Code §\$105.21(a)(1), 105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C)]	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
LA 47	Table 3 of Tab 11 and the stream data sheet for Stream S-A78 indicate that the bank to bank width is 3 feet, but Table 1, page 1, and page 3-10 of the Aquatic Resource Report indicate 2.5 feet. Clarify this discrepancy. [25 Pa. Code	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.

	§§105.21(a)(1), 105.13(e)(1)(i)(A),	
	105.13(e)(1)(i)(C)]	
LA 48	Table 3 of Tab 11 and the stream data sheet for Stream S-A76 indicate that the bank to bank width is 4 feet, but Table 1, page 2, and page 3-10 of the Aquatic Resource Report indicate 3.5 feet. Clarify this discrepancy. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C)]	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
LA 49	Table 3 of Tab 11 and the stream data sheet for Stream S-A88 indicate that the bank to bank width is 2 feet, but Table 1, page 1, and page 3-10 of the Aquatic Resource Report indicate 1.5 feet. Clarify this discrepancy. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C)]	The widths reported on Table 3 are accurate bank widths at centerline. Widths provided in the Aquatic Resource reports were estimated. Table 3 now has a footnote to include this explanation.
LA 50	There are plan sheets in Tab 7A with streams that do not show enough information beyond the temporary right-of-way (ie. Floodway delineation, stream orientation, and hydrologic connections) to properly evaluate the proposed impacts. Provide a better depiction of the streams outside of the proposed temporary rights of way. [25 Pa. Code §§105.13(e)(1)(i)(A)]	The plans in Attachment 7, Tab 7A provide the delineation of resources beyond the LOD. Delineations were performed on a 200-foot-wide survey corridor. Reroutes and Project changes were also field-delineated and delineations occurred beyond the Project areas to capture adjacent resources.
LA 51	Indicate why a flume option is not selected for larger streams in lieu of bypass pumping. [25 Pa. Code §§105.13(e)(1)(viii)]	For both larger streams and smaller streams for which the dry crossing method is proposed, the contractor has available one of four crossing methods to facilitate the crossing while maintaining a dry crossing and maintaining stream flow. These methods, including the dame and

LA 52	The E&S sheet numbers on the Tables in Tab 11 do not correspond to the E&S plan provided	flume option, 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. The revised application document provides accurate cross-referencing of E&S Plan sheet numbers and Table 3
	for Lancaster County. Clarify this discrepancy. [25 Pa. Code §§105.21(a)(1) § 105.13(g)]	of Attachment 11 and the aerial site plans of Attachment 7, Tab 7A.
LA 53	There is no HDD Table located in Attachment A, of Appendix A, Tab 9. Provide the missing table. [25 Pa. Code §§105.21(a)(1)]	The IR Plan has been revised to include the table and provided in Attachment 12, Tab 12C.
LA 54	25 Pa. Code § 93 classifies unnamed tributaries to Cocalico Creek as WWF; however, the submission identifies them as HQ-WWF. In addition, the Chapter 93 designations should not be listed as "drains to." Correct the submission to reflect the proper designated uses. [25 Pa. Code §§105.13(e)(1)(A)]	According to eMapPA (Accessed Sept. 21, 2016) Cocalico Creek and its Tributaries have classifications as HQ-WWF or WWF depending the tributary/location (Tributaries east of appx. 40.283391, -76.766187 are Chap. 93 WWF while those west of that location are HQ-WWF). S-A78, S-A79, S-A80, S-A81, S-A83, and S-A88 are listed as "Drains to" because they are not specifically indicated as a HQ-WWF or WWF by eMapPA, however they do drain to either a HQ-WWF or WWF. The (drains to) qualifier is explained in a footnote on Table 3.
LA 55	The Auger Bore Plan drawing PPP-PA-LA-0004.0003-AR depicts permanent ROW and Temporary ROW in wetland J54 and stream S-J59. This is not depicted on other plan drawings or the impact table. Revise this auger bore drawing to be consistent with the other plan drawings and minimize impacts to the stream and wetland. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	Attachment 7, Tab 7C contains an updated bore drawing for this crossing. There is no permanent or temporary ROW in Wetland J54.

LA 56	The site plan drawing indicates stream S-J59 and wetland J54 are to be bored. However, the Auger Bore Plan drawing PPP-PA-LA-0004.0003-AR does not indicate any bore pits or that the pipeline is proposed to be bored underneath these resources. Provide an auger bore plan and profile for the crossing of these resources. [25 Pa. Code §§105.13(e)(1)(i), 105.301(5)]	Stream J59 and Wetland A54 are being bored. Attachment 7, Tab 7C contains an updated bore drawing for this crossing; drawing number PA-LA-0004.0003-AR.
LA 57	The E&S plan drawing ES-1.12 is inconsistent with the site plan drawings and the HDD plan drawings which only depict one continuous HDD for each pipeline. Revise the E&S plan drawings to be consistent and accurate with the rest of the application. [25 Pa. Code §\$105.13(e)(1)(i), 105.21(a)(1)]	The E&S Plan Sheet ES-1.12 has been updated to include temporary matting across S-A49 within the ROW and is now consistent and accurate with the rest of the application.
LA 58	The site specific drawing S-B83-C-101 depicts different temporary wetland and stream crossing impacts than the E&S site plan drawing ES-1.17. Revise the plan drawings to be consistent and accurately depict the proposed impacts. [25 Pa. Code §§105.13(e)(1)(i), 105.21(a)(1)]	The E&S Plan Sheets ES-1.16 and ES-1.17 have been updated to include additional temporary matting to be consistent with the Chapter 105 Permit Application.
LA 59	Revise the site specific drawing S-B83-C-101 to clearly depict the stream banks of stream S-B83 and the limits of excavation. [25 Pa. Code §\$105.13(e)(1)(i), 105.301(1)]	Drawing S-B83 has been revised to fully depict the existing and proposed conditions. The drawing is now included in Attachment 12 as a subset to the E&S sheets.
LA 60	The site specific drawing S-B83-C-101 appears to depict that the width of the timber mat crossing will in some locations only be supported on one side (left or right) of the	Drawing S-B83 has been revised to fully depict the existing and proposed conditions. The drawing is now included in Attachment 12 as a subset to the E&S sheets. The drawing set has a detail for timber mats.

	matting. Clarify how the timber mats are to be installed in such a manner. [25 Pa. Code §§105.151(1)]	
LA 61	Provide profiles for the temporary crossings identified in the E&S plan that depict at a minimum the existing conditions and the proposed conditions. Provide information regarding the length of time that all temporary crossings will be in place. Some of the plans appear to use unnatural stream contours upon restoration. Identify the aggregate and the typical timber mat crossing being used. [25 Pa. Code §§105.13(e)(1)(i)(B), 105.13(e)(1)(i)(C)]	Temporary bridge and wetland mat crossing plan and profiles are presented within the E&S Plan as standard typical details. Several typical temporary crossing methods are presented for streams and a single method for wetlands. The contractor is offered to select the best option to best fit the crossing and meet the needs of allowing safe travel through and installation of the pipeline while minimizing the impact to the stream and adjacent areas. Restoration of these areas are thoroughly described within the E&S Plan provided in Attachment 12. Approval of the E&S Plan is being sought through the Chapter 102 regulations.
LA 62	The site plan sheets and E&S plan sheets identify the floodway which appear to be measured from the centerline of the stream as opposed to 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 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.

LA 63	For all Bore and HDD locations, identify where all pipe pull back, or assembly, or other areas where the pipe will be laid out, and all construction and staging areas are located. Identify any temporary crossings or impacts for these areas to streams, wetlands, and floodways and revise the application accordingly to include these impacts, including site-specific plans depicting the impacts and proposed temporary matting. [25 Pa. Code §§105.13(e)(1)(i), 105.13(e)(1)(iii)]	To reduce overall impacts to the landscape and, in particular, wetlands and streams, pullback areas are sited within the same workspaces designed for the open cut installation of the pipeline to the maximum extent practicable. Pullback areas not proposed within the workspaces needed to install the pipelines via open cut are accommodated by adding Additional Temporary Workspace (ATWS). Although avoided to the maximum extent practicable, if streams and wetlands are crossed by the pullback activity within the ATWS, then temporary crossings or impacts, such as temporary bridges, are identified on the site-specific, E&S Plan sheets. Additional temporary matting and bridges to accommodate the pullback activity including pipe layout and assembly in the open cut areas are also identified on E&S Plan sheets. Temporary bridges and matting will be installed and restored in accordance with the standard typical details provided within the E&S Plan in Attachment 12. The impacts of these activities occur within the permanent and temporary workspaces within the LOD.
LA 64	The plans depict that stream S-B13 starts adjacent to the proposed ROW; however, it appears that the stream starts above the ROW and flows through the ROW. It also appears on aerial photographs that a stream flows through wetland B11. The photographs and narrative do not give justification, nor appear to depict that a stream is not present nor why stream S-B13 begins. Revise the application to explain this delineation of the streams, and ensure that its	Tetra Tech performed a follow-up field visit at stream S-B13 in September 2016. During the secondary investigation Tetra Tech concluded that the stream S-B13 was accurately delineated. Stream S-B13 starts within the survey corridor, with the head of stream beginning within the existing pipeline right-of-way. S-B13 collects and channels precipitation and runoff from the surrounding topography. The area upslope of the previously located head of stream was heavily vegetated and showed no evidence of bed, bank, or scour. A photo of the area is

LA 65	floodway and proposed floodway impacts are fully identified and depicted and include color photographs which depict the resource and surrounding area sufficiently. [25 Pa. Code §§105.13(e)(1)(i)(A), 105.13(e)(1)(iv)] Provide site specific cross sections for the	included in the Aquatic Resources Addendum provided in Attachment 11, Enclosure A. Site Specific Plans located in Attachment 7, Tab 7D have
	streams and wetlands which depict the existing and proposed conditions of the streams and wetlands, proposed pipes and depths, and the existing stream bed and banks dimensions. [25 Pa. Code §§105.13(e)(1)(i)(G), 105.14(b)(4), 105.301(3), 105.301(4), 105.301(5)]	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.
LA 66	The Mitigation Plan states that the excavated stream banks will be reseeded; however the E&S detail for bank restoration does not indicate this. Revise the Bank Restoration Detail to be consistent and include the native seeding mixture to be utilized. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.21(a)(1)]	The bank restoration details have been revised to indicate that stream banks will be reseeded in accordance with the approved seed mixes.
LA 67	The E&S plan details for temporary stream crossings and plan drawings state timber mats or temporary equipment bridge may be utilized but only depicts a timber mat bridge. Provide details for the proposed temporary equipment bridge(s) which depict the size, shape, and span of the structure. Provide separate details depicting the timber mat and other bridge structure crossing's cross sections. In addition, revise the E&S plan and/or other plan drawings to identify the method of each temporary stream	The E&S plans (Attachment 12) have been revised to identify that a temporary equipment bridge will be installed or temporary timber matting for wetland will be installed. The contractor is then obligated to utilize any of the approved methods for these crossing types provided within the E&S Notes and Details. Exact dimensions will be dictated by the location and method chosen.

	crossing proposed at each location. [25 Pa. Code §§105.13(e)(1)(C), 105.13(e)(1)(i)(G),	
LA 68	105.13(e)(1)(iii)(A), 105.151(1), 105.21(a)(1)] 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.	The wetland standard typical crossing detail has been updated to include trench plugs within the wetland for long open-cut wetland crossings. Also, the E&S plan drawings have been revised to be consistent with the detail.
LA 69	[25 Pa. Code §§105.13(e), 105.18a] Temporary road stream crossing details utilizing culverts are provided on E&S plans ES-0.08 and ES-0.10; 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.
LA 70	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.	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 plans and details for how banks of a-	provide details on the erosion control blanket and
	typical conditions will be restored. [25 Pa. Code	plantings. Atypical bank situations will be addressed in
	§§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1,	the field on a site specific basis, and will have the goal of
	105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4),	restoring the banks as closely as possible to their
	105.16(d)]	preconstruction condition or a more stable angle of
		repose.
LA 71	Provide plans or a detail for the restoration of	Native stream bed material will be separated from other
	stream beds at open cut stream crossings. This	spoil for reinstallation after restoration (see the E&S Plan
	should include replacement of native stream	provided in Attachment 12). An evaluation was done for
	bed material and assurance that no significant	sheer stress of flow against restored native material. If the
	changes in bed grade occur. [25 Pa. Code	evaluation indicated that the stream will not be stable with
	§§105.13(e)(1)(i)(G), 105.13(e)(1)(ix), 105.1,	native material, then rip rap will be used. In these cases,
	105.13(e)(1)(x), 105.15(a)(1), 105.14(b)(4),	native stone will be used for the top six inches of rip
	105.16(d)]	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.
LA 72	Streams S-B12 and S-B13 which begin within	As described within the enclosures of the Comprehensive
	the proposed ROW or immediately adjacent	Environmental Evaluation provided in Attachment 11,
	thereto it are proposed to be crossed by the	Enclsoure E, impacts to water resources have been
	proposed pipelines. Revise the application to	minimized to the maximum extent practicable. Where
	discuss and provide plans outlining how	planned, the crossing and restoration of all Project streams
	source(s) of the streams will be protected and	will use temporary equipment bridge installation and dry
	maintained. Revise the Environmental	crossing trenching methods as outlined and described
	Assessment and Mitigation Plan to discuss the	within the E&S Plan provided in Attachment 12 and the
	impacts to the streams both within the ROW	Impact Avoidance, Minimization, and Mitigation
	and the downstream affects to the resources and	Procedures provide in Attachment 11, Enclosure E, Part 4.
	properties. Provide compensatory mitigation for	These methods are designed in accordance with the DEP
	streams in which flow will be adversely	E&S Manual to maintain flow, protect sources, and
	affected. [25 Pa. Code §§105.13(e)(1)(ix),	minimize direct and secondary impacts to on-site and
		offsite resources. Similarly, adjacent resources are

LA 73	105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(3), 105.15(a)(1), 105.16(d)] The Mitigation Plan states that for HDD crossings, a telemetry guidance system will be	protected from secondary impacts through implementation of the E&S Plan in areas outside of aquatic resources. The Comprehensive Environmental Evaluation demonstrates that when implementing these methods along with site restoration, impacts to water resources are temporary and minor. NA - Heading
LA 73.a	used. Revise the application to identify what type of telemetry guidance system will be utilized; specifically if it will utilize cables, wires, or other obstructions placed or strung across waters of the Commonwealth. [25 Pa. Code §§105.13(e)(1)(iii), 105.13(e)(1)(i), 105.301(7)]	Telemetry guidance systems for HDDs can include a cable, wire, or other obstructions to be placed in waters of the Commonwealth, and is discussed in Attachment 9.
LA 73.b	If cables, wires, or other obstructions will be utilized across waters of the Commonwealth revise the application to identify these temporary impacts, include them in the impact tables. Provide plan drawings and cross sections depicting the obstructions, and provide information on the purpose, function, and length of time they will be installed. [25 Pa. Code §§105.13(e)(1)(i), 105.301(3), 105.301(5), 105.15(a), 105.13(e)(1)(iii)]	When used, the HDD cable will be aligned along the proposed pipeline centerline (above the drill path); accordingly, the impact calculations and application fees are already accounted for within the application. For HDDs of waters of the commonwealth where a telemetry guidance system will consist of cables, wires, or other obstructions to be placed in waters of the commonwealth, and as required based on SPLP's coordination with PA Fish and Boat Commission, an Aids to Navigation (ATON) Plan has been prepared and provided in Attachment 7B. 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.
LA 73.c	If cables or other obstructions are proposed over streams, an Aids-To-Navigation (ATON)	For HDDs of waters of the Commonwealth where a telemetry guidance system will consist of cables, wires, or

	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)]	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.
LA 74	The impacts described under Section 5.0 of the Mitigation Plan are inconsistent with the impacts provided in the impact tables in the Environmental Assessment. Revise this inconsistency to state the correct impact totals throughout the application. [25 Pa. Code §§105.15(a), 105.21(a)(1), 105.13(e)(1)(i)(ix)]	The Environmental Assessmenthas 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.
LA 75	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 duration s 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.

LA 76	The application states that the period of	For the open cut crossings of larger waters, the E&S Plan
	instream work to install the proposed	notes and details provided in Attachment 12 and Impact
	pipeline(s) will be less than 24 hours in minor	Avoidance, Minimization, and Mitigation Procedures
	waterbodies and 48 hours for crossing of	(Attachment 11, Enclosure E, Part 4) have been revised to
	"intermediate" (10-30' across) waterbodies.	indicate that in-stream work to occur in minor water
	Describe how these timeframes coincide with	bodies (>10 feet wide) within 24 hours, and in major
	the hydrostatic testing procedures outlined in	water bodies (10 to 100 feet wide) within 48
	the project description. Do the trenches remain	hours. Open-cut wetlands are tested along with the
	open during testing? To facilitate the further	mainline testing and testing would be when the mainline
	understanding of your project, revise your	is ready. Stream and wetland crossings are immediately
	application to discuss the estimated time	backfilled and prior to testing.
	installation will take in crossings of wetlands	
	and larger watercourses. [25 Pa. Code §	
	105.13(e)(1)(iii)]	
LA 77	Revise the application to clarify if the	The Exceptional Value Wetland analysis is now detailed
	exceptional value wetland analysis included all	in Attachment 11, Enclosure E, Part 2 and specifically
	factors listed in 25 Pa Code §105.17(1). If the	indicates that the Exceptional Value Wetland analysis
	analysis did not consider all factors, revise it to	included all factors listed in 25 Pa. Code § 105.17(1),
	analyze all factors and update the application.	including a thorough and detailed analysis of public and
	[25 Pa. Code §§105.13(e)(1)(x)(B), 105.17(1)]	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.

LA 78	Provide an assessment of the functions and	Detailed functions and values assessments have been
LAT 10	values of any additional Exceptional Value	included for all Exceptional Value wetlands regardless of
	wetlands and wetland with impacts over 1 acre.	acreage.
	[25 Pa. Code §§105.13(e)(3), 105.15(a)]	acicage.
LA 79	Enclosure C of the Environmental Assessment	Attachment 11, Enclosure C has been revised to clarify
LA 19	discusses the various sections in terms relative	that there are Project areas that do not completely overlap
	to the existing pipeline ROW; however, the	the existing ROW. The Application, including
	proposed ROW does not fully overlap the	Attachment 11, Enclosure E, Part 2 discusses all
	existing ROW but abuts/parallels the existing	temporary and permanent impacts upon resources as a
	ROW. Revise Enclosure C to discuss the	result of the entire Project, including resources inside and
	functions, habitat, and other factors in	outside the ROW.
	Enclosure C outside of the existing ROW and in	
	areas of proposed impact and the overall	
	resources. [25 Pa. Code §§105.13(e)(1)(x),	
	105.15(a), 105.14(b)(4)]	
LA 80	Public water supplies are located within in the	Water supply impacts have been analyzed and addressed
	vicinity of the proposed pipeline. The	within three supplemental plans to the Preparedness,
	application states that there will not be any	Prevention, and Contingency Plan (PPC Plan), the Water
	impacts the water supplies as a result of the	Supply Assessment, Preparedness Prevention and
	pipeline. Provide the supporting documentation	Contingency Plan, the Inadvertent Return Assessment,
	that led to this conclusion. Locate the public	Preparedness, Prevention and Contingency Plan, and the
	drinking water supplies in the vicinity of the	Void Mitigation Plan for Karst Terrain and Underground
	proposed pipeline. Additionally, we	Mining. These plans address the elements of this
	recommend that you contact any public water	comment, and are provided in Attachment 12.
	supplier in order to help determine if your	
	project will impact the public water supplier	
	and subsequently provide documentation of	
	interactions, through correspondence, with each	
	supplier. Ensure all Public water supplies in the	
	vicinity of the proposed pipeline are identified	
	within the location map. Enclosed are	

	instructions on how to utilize DEP's eMapPA	
	to identify public water supplies in the vicinity	
	of your project. [25 Pa. Code	
	§§105.13(e)(1)(ii) & 105.13(e)(1)(x) &	
	105.14(b)(5)]	
LA 80.a	Upon identification of public drinking water	The responses to questions 14, 15, and 16 of the General
	supplies, revise questions 14.0, 15.0, and 16.0	Information Form in Attachment 1 have been revised to
	of the General Information Form accordingly.	address this comment.
	[General Information Form Instructions]	
LA 80.b	Upon identification of public drinking water	Attachment 12, Tab 12B provided a new Water Supply
	supplies, revise the Environmental Assessment	Assessment, Preparedness, Prevention and Contingency
	Form and associated enclosures accordingly to	Plan, which discusses the potentially affected resources
	discuss the resources and impacts from water	and impacts from water obstructions and encroachments
	obstructions and encroachments on the public	on public water supplies.
	water supplies. [25 Pa. Code §§105.15(a),	
	Environmental Assessment Form Instructions]	
LA 80.c	Upon identification of public drinking water	The Alternatives Analysis in Attachment 11, Enclosure
	supplies, revise the Alternatives Analysis and	E, and the Impact, Avoidance, and Minimization,
	Mitigation Plan accordingly to avoid and	Mitigation Procedures in Attachment 11, Enclosure E,
	minimize impacts to public water supplies and	Part 4 have been revised to provide a detailed discussion
	provide a detailed discussion on alternative	of alternative routes, designs and methods and to
	routes, designs and methods documenting that	demonstrate that there is no practicable alternative to
	there is no practicable alternative to further	further avoid and minimize impacts. The Water Supply
	avoid and minimize impacts. [25 Pa. Code	Assessment, Preparedness, Prevention and Contingency
	§§105.13(e)(1)(viii), 105.13(e)(1)(ix),	Plan in Attachment 12, Tab 12B identifies and assesses
	105.14(b)(5)]	impacts and provides BMPs.
LA 81	The application does not identify if the	Water supply impacts have been analyzed and addressed
	resources proposed to be affected are part of or	within three supplemental plans to the Preparedness,
	located along a private water supply, including	Prevention, and Contingency Plan (PPC Plan): the Water
	surface and groundwater sources. Revise the	Supply Assessment, Preparedness Prevention and

	application and the Environmental Assessment	Contingency Plan, the IR Plan, and the Void Mitigation
	to identify if any of the proposed resources are	Plan for Karst Terrain and Underground Mining. These
	part of or located along a private water supply.	supplemental plans are provided in Attachment 12.
	[25 Pa. Code §§105.15(a), Environmental	
	Assessment Form Instructions]	
LA 81.a	If private water supplies are identified, revise	Water supply impacts have been analyzed and addressed
	Enclosures C and D of the Environmental	within three supplemental plans to the PPC Plan: the
	Assessment to identify them and discuss the	Water Supply Assessment, Preparedness Prevention and
	impacts on them from the proposed water	Contingency Plan, the IR Plan, an the Void Mitigation
	obstructions and encroachments.	Plan for Karst Terrain and Underground Mining. These
		supplemental plans are provided in Attachment 12.
LA 81.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 impacts should they occur, including notification
	supply owners will be alerted in the event of an	procedures.
	inadvertent return and how impacts will be	
	resolved and/or mitigation.	
LA 82	Section F, Attachment 11, EA Form, Page 2,	Water supply impacts have been analyzed and addressed
	item 7 states, "Is the water resource part of or	within three supplemental plans to the PPC Plan, the
	located along a private or public water supply?"	Water Supply Assessment, Preparedness Prevention and
	The Applicant checked "No". However, no	Contingency Plan, the IR Contingency Plan (IR Plan), and
	documentation validating this statement is	the Void Mitigation Plan for Karst Terrain and
	provided in the application. The Department is	Underground Mining. These plans are provided in
	concerned that private and perhaps public water	Attachment 12 and the EAF revised accordingly. These
	supply wells are located along crossed stream	plans provide instructions and procedures to facilitate the
	and wetland water resources and/or along the	avoidance and minimization of impacts and provides the
	length of the HDD operations. The applicant	framework to investigate and resolve impacts caused by
	needs to propose measures to protect all water	spills, releases, and other pollution events should they
	uses, both surface intakes and groundwater	occur. Applicable public private downstream user

	sources, located along and/or downstream of the proposed work areas. Special attention needs to be applied to the potential unplanned impacts that HDD and inadvertent releases (IR) may have on groundwater sources. In addition, where a structure or activity is in a wetland, the applicant must demonstrate that this project will	information is compiled within the Water Supply plan and identification, notification, and testing procedure for private wells discussed.
	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);	
LA 83	§105.18a(b)(5); §91.33(b)]. Revise Enclosure D of the Environmental Assessment to evaluate how pipe installation combined with permanent ROW maintenance will not result in an adverse impact to wetlands. The evaluation should specifically include a discussion of potential impacts to hydrology	Enclosure D has been revised to address how pipe installation and permanent ROW maintenance will not result in adverse impacts to wetlands, including addressing impacts to hydrology from trenched construction techniques, and potential impacts from HDD drilling fluids. Information describing the proposed
	that could occur from open cut installation. This evaluation should also address any potential impacts the use of HDD drilling fluids would have on wetland hydraulics. [25 Pa. Code §§105.13(e)(1)(x), §105.15(a)]	wetland crossing techniques that are designed to avoid impacts to wetland hydrology is found in Attachment 11, Enclosure E, Part 4 (Impact Avoidance, Minimization, and Mitigation Procedures). Attachment 12, Tab 12C (Inadvertent Return Assessment, Preparedness,

		Prevention, and Contingency Plan) addresses the steps
		taken to prevent the release of HDD drilling fluids.
LA 84	In regards to the proposed pipeline crossings of	NA - Heading
	wetland A55 and streams S-A82, S-A83, S-	
	A80, and S-A81:	
LA 84.a	It appears your proposed construction	SPLP has been in direct communication with
	workspace will encroach upon proposed	Transcontinental Gas Pipe Line Company, LLC (Transco)
	easement boundaries for the Transcontinental	and acquired a proposed permanent right-of-way
	Gas Pipeline Company, LLC.'s proposed	easement across the subject property that contains
	Hibred Farms compensatory mitigation site.	Transco's proposed Hibred Farms Mitigation Site located
	Revise the application to discuss the effects of	in Lancaster County. The acquired permanent right-of-
	the water obstruction and encroachments on the	way easement boundaries do not encroach upon the
	proposed compensatory mitigation and	boundaries of Transco's proposed Hibred Farms
	provided documentation of communication with	Mitigation Site. A summary of SPLP's communication
	Transcontinental Gas Pipeline Company. [25	with Transco and assessment of Project impacts on the
	Pa. Code §§105.14(b)(4), 105.14(b)(12),	Hibred Farms Mitigation Site is provided in Attachment
	105.14(b)(14), 105.15(a)]	11, Enclosure D.
LA 84.b	The proposed "Permanent Easement (no surface	According to the Joint Permit Application for the
	disturbance) boundary and "Permanent ROW"	Transcontinental Gas Pipeline Company's Atlantic
	boundary appear to conflict with the proposed	Sunrise Project posted online by DEP, the mitigation area
	easement boundaries for the Transcontinental	has a 50-foot wide gap between the northern and southern
	Gas Pipeline Company, LLC.'s proposed	halves of their proposed mitigation. That 50-foot wide gap
	Hibred Farms Compensatory mitigation site.	represents the permanent easement for SPLP's
	Revise the application to discuss the effects of	Pennsylvania Pipeline Project. SPLP plans to HDD this
	the water obstruction and encroachments on the	area and therefore does not plan to clear vegetation in this
	proposed compensatory mitigation, including	area as part of a regular maintenance program. The
	the effects of operation and maintenance and	pipeline is planned to be a minimum of 33 feet below the
	provide documentation of communication with	surface of the wetland and no impacts to the mitigation
	Transcontinental Gas Pipeline Company. [25	site are expected from this activity. A summary of SPLP's
	Pa. Code §§105.14(b)(4), 105.14(b)(12),	communication with Transco and assessment of Project
	105.14(b)(14), 105.15(a)]	

		impacts on the Hibred Farms Mitigation Site is provided
T A O.	D ' E 1 C 0 D (1')	in Attachment 11, Enclosure D.
LA 85	Revise Enclosures C & D to discuss the	Enclosure C of the Environmental Assessment has been
	watercourses and wetlands proposed to be	revised to provide more detailed discussion of the existing
	impacted and the impacts on them, and not	aquatic resources and wetland functions and values within
	discuss the impacts in general terms of the	the proposed ROW. Enclosure D of the Environmental
	overall project or general type of impacts. [25	Assessment and Attachment 11, Enclosure E, Part 2 have
	Pa. Code §§105.13(e)(1)(x), §105.15(a)]	been revised to provide more detailed discussion of the
		impacts to existing aquatic resources and wetland
		functions and values within the proposed ROW.
LA 86	The application states that topsoil will be	Topsoil depth varies considerably from site to site and
	segregated. Provide a revised Enclosure D of	within the site. Accordingly, topsoil depth will be
	the Environmental Assessment that explains	determined in the field by experienced construction
	how the topsoil depth will be determined in the	contractors and/or the EI by visual observation.
	field. [25 Pa. Code §§105.15(a), 105.15(b), and	
	Environmental Assessment Instructions]	
LA 87	Revise Enclosure D of the Environmental	Enclosure D has been updated to discuss the Project's
	Assessment to discuss the impacts on the Game	impacts on State Game Lands in Lancaster County. With
	Lands crossed in Lancaster County by the	respect to the request to provide supporting
	Water Obstructions and Encroachments, and	documentation/coordination materials, SPLP notes it has
	provide documentation of coordination and	been coordinating with the Pennsylvania Game
	approval from the Pennsylvania Game	Commission (PGC) and for more than a year, and has
	Commission. The discussion of impacts affects	submitted various and voluminous documentation and has
	multiple sections of Enclosure D; such as but	held regular meetings with PGC pursuant to license
	not limited to State Game Lands, Federal, State,	agreements across State Game Lands. This
	Local, Migration, and Private Plant or Wildlife	documentation includes Applications for Right-of-Way
	Sanctuaries, Environmental Study Areas,	License documents and supporting information.
	Hunting, etc. As necessary, provide any	Easements for these properties are anticipated to be ready
	supporting documentation and/or coordination	in December 2016/January 2017. Due to the voluminous
	materials for the approval from the Game	nature of documentation SPLP has generated and
	Commission. [25 Pa. Code §§105.13(e)(1)(x),	submitted to PGC, SPLP has not provided copies in the

	105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]	context of this Chapter 105 application because it is not specifically required. If DEP requests or requires supporting documentation, SPLP invites DEP to provide more direction on specifically what documentation it requests.
LA 88	Enclosure C of the Environmental Assessment mentions that the project crosses the Middle Creek Important Bird Area (IBA), but Enclosure D does not discuss the impacts that water obstructions or encroachments may have on this area. Revise Enclosure D of the Environmental Assessment to discuss the impacts the proposed water obstructions and encroachments will have on this area. In addition, identify if/how the recommendations in the USFWS letter dated June 24, 2016 are being addressed. [25 Pa. Code §§105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(5), 105.15(a)]	Enclosure D of Attachment 11 has been revised to address this comment. In addition, to address the June 24 recommendations a Migratory Bird Conservation Plan was submitted to the USFWS in correspondence dated July 15, 2016. That correspondence and plan are included in Attachment 6, Tab 6B. The conservation plan addresses many of the USFWS recommendations for linear Projects, many of which have been implemented during planning and design for this Project, including paralleling ROWs and reducing workspaces.
LA 89	Revise section B.1.b.5. of Enclosure D of the Environmental Assessment to discuss the impacts of the water obstructions and encroachments on migration both within and outside the boundaries of Middle Creek Wildlife Management Area. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.14(b)(5), 105.18a(a)(1), 105.18a(b)(1)]	Enclosure D has been revised to specifically mention the Middle Creek Wildlife Management Area and Project impacts/impact avoidance measures on bird migration.
LA 90	Revise section D.5 of Enclosure C of the Environmental Assessment to identify the Middle Creek Cocalico Creek Supporting Landscape, Allegheny Creek Supporting	Enclosure C has been revised to identify these Supporting Landscapes, and Enclosure D has been revised to identify and discuss impacts to these Supporting Landscape areas.

	Landscape, Little Muddy Creek Supporting Landscape, and the Millbach Spring Wetlands Supporting Landscape. [25 Pa. Code	
	§§105.13(e)(1)(x), 105.15(a), 105.14(b)(4), 105.14(b)(5)]	
LA 91	Update and revise section A.3 of Enclosure D of the Environmental Assessment to discuss any avoidance and minimization measures relative to clearance for the Pennsylvania Historical and Museum Commission. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), Environmental Assessment Form Instructions]	Attachment 11, Enclosure D and Attachment 11, Enclosure E, Part 2 have been updated with avoidance and minimization measures relative to PHMC consultations to-date.
LA 92	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.
LA 93	Revise section A.9 of Enclosure D of the Environmental Assessment to discuss and identify impacts to preserved farms and/or farms with agriculture preservation easements or restrictions. Discuss how the minimization measures would affect preserved farms and how they will be affected, such as not being able to replant an orchard or vineyard. [25 Pa. Code §§105.13(e)(1)(x), 105.15(a), 105.14(b)(5), 105.14(b)(4), Environmental Assessment Form Instructions]	Impacts of the Project, which includes an evaluation of water resource impacts, on these designations are provided in Attachment 11, Enclosure D.

LA 94	Revise the Environmental Assessment to discuss the impacts to each wetland where a vegetative class change is proposed (ex. PFO to PSS). The discussion should be specific to the wetland and its functions and values. [25 Pa. Code §§105.14(b)(4), 105.14(b)(13), 105.14(b)(11), §105.15(a), 105.18a(b), 105.18a(a)]	All impacts to PSS classifications, Project-wide, will be replanted or allowed to revert to PSS wetlands; therefore, there will be no conversion of PSS to PEM. In Lancaster County, there will be no permanent vegetative cover class changes as a result of the Project as discussed in Enclosure D.
LA 95	Revise Section B.1.c. of Enclosure D of the Environmental Assessment to discuss, any avoidance and minimization measures, and committing to implementing them. It currently states that clearances are being worked on. [25 Pa. Code §§105.15(a), 105.14(b)(4), 105.21(a)(1)]	Attachment 11, Enclosure D has been revised to address the comment and discuss the commitments implementing the avoidance and minimization measures. All clearances and conservation plans for threatened and endangered species on the Project have been received from the regulating agencies. The final avoidance and minimization commitments are detailed in the Project Description as well as within the PNDI documents presented in Attachment 6.
LA 96	Revise Enclosure D to discuss potential impacts to Core Habitat Areas and Supporting Landscapes identified in Enclosure C of the Environmental Assessment from the proposed water obstructions and encroachments. [25 Pa. Code §§105.15(a), 105.14(b)(4)]	Enclosure D has been revised to discuss impacts to Core Habitat Areas and Supporting Landscape areas.
LA 97	Revise the description of wetland functions and values to not only include the principle functions and values, but all the functions and values the wetlands provide. [25 Pa. Code §§105.13(e)(2), 105.14(b)(13), 105.15(a)]	All functions and values have been evaluated for all wetlands. The Principal Functions and Values are identified on the Wetland Function-Value Evaluation for Exceptional Value wetlands in Attachment 11, Enclosure C. In many cases, all functions and values may be Primary; however, secondary functions and values are also identified for each wetland.

LA 98

Based on the functions and values descriptions wetlands may contain groundwater discharges, such springs, maybe concave and not connected to groundwater. Identify and provide a discussion on any potential permanent impacts to wetland hydrology from excavation or alteration from construction of the proposed project. Provide a plan, plan sheets, cross sections, and other details which demonstrate that impacts to the wetlands' hydrology from alteration of restrictive layers have been avoided and minimized. [25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]

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
		SPLP's inspection program, including the provision of a PG.
LA 99	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	Site Specific Plans located in Attachment 7, Tab 7D have been revised to address complex aquatic resource crossings. As recommended by the DEP at a September 12, 2016 technical deficiency meeting, several cross sectional typical details are provided within the E&S Plan Sheets to accommodate the variety of typical stream and wetland crossings. The E&S Sheets depict contours.

	"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)]	
LA 100	Revise Enclosure D of the Environmental	The Alternatives Analysis provided in Attachment 11,
	Assessment to explain, on an individual	Enclosure E, Part 3 demonstrates SPLP's efforts to avoid
	crossing and cumulative basis, why open cut	and minimize impact to all wetland to the maximum
	pipe installation combined with permanent	extent practicable. The county-specific Project impacts
	ROW maintenance will not result in an adverse	provided in Attachment 11, Enclosure D and the Project-
	impact to exceptional value wetlands or a	wide impacts provided in Attachment 11, Enclosure E,
	significant adverse impact to other wetlands.	Part 2 demonstrate that the impacts to aquatic resources
	The analysis should include a discussion of	will be minor and temporary. The Project's E&S Plan
	potential temporary or permanent impacts to	provided in Attachment 12 and Impact Avoidance,
	hydrology as a result of the open cut, as well as	Minimization, and Mitigation Procedures provided in
	a loss of woody species in forested/scrub shrub	Attachment 11, Enclosure E, Part 4, and Compensatory
	areas. Provide a plan to minimize the risk of	Mitigation Plan provided in Attachment 11, Enclosure F
	permanent impacts to wetland hydrology for	provide the plans and BMPs that minimize the risk of
	each wetland where an impact may occur. [25	permanent impacts to wetland hydrology and ensure the
	PA Code §§105.13(e)(1)(ix) & 105.18a]	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.
LA 101	Revise Enclosures C&D to assess the condition	Attachment 11, Enclosure E, Part 2 discusses primary and
	and discuss the condition of and impacts to	secondary impacts to forested and scrub-shrub riparian
	forested and scrub shrub riparian areas. Revise	areas; and Attachment 11, Enclosure E, Part 5 has been
	the enclosures to discuss the primary impacts	expanded to include an analysis of Chapter 105
	and secondary impacts, as well as consideration	antidegradation requirements related to forested riparian
	of antidegradation on watercourses for each	buffer impacts along watercourses crossed by the Project.
	watercourse crossing from the riparian	
	vegetation impacts. [25 Pa. Code §§105.15(a),	

	105.13(E)(1)(x), 105.14(b)(4), 105.14(b)(11),	
	105.14(b)(12), 105.14(b)(14)]	
LA 101.a	In general, the Department recommends	Riparian areas have been evaluated from 100 feet from
	evaluating the riparian areas from the top of	each bank according to DEP's recommendation. The
	bank landward 100ft, and if the area utilized is	analysis discussing the effects of the Project on the
	less than 100ft justification should be given as	riparian areas is provided in Attachment 11, Enclosure D
	to why. [25 Pa. Code §§105.15(a),	and Enclosure E, Part 2.
	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]	
LA 101.b	To avoid and minimize the impacts to the	Except at above ground facilities including valve and
	watercourses, provide a plan to replace the	pump stations, all previously vegetated temporary and
	vegetation lost in both permanent and	permanent workspaces are restored to a vegetated state in
	temporary ROW and workspaces. Alternatively,	accordance with the E&S Plan provided in Attachment
	where it cannot be replaced and provided	12. Also the BMPs for restoring and maintenance of
	protection from clearing during the proposed	these areas are discussed within the Impact Avoidance,
	project's operation and maintenance, provide an	Minimization, and Mitigation Procedures found in
	explanation as to why it cannot be replaced.	Attachment 11, Enclosure E, Part 4.
	[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)]	
LA 101.c	Revise the application plan drawings and	SPLP did not revise the plan drawings. Instead, SPLP
	project description to clearly and specifically	revised both the Project Description located in
	state if vegetation clearing, cutting, removal, or	Attachment 9 to define the terms used within the plan
	other alteration is proposed as part of the	drawings such as "Permanent Access Road," "Permanent
	proposed projects' construction, operation, and	ROW," "Temporary ROW," and "Additional Temporary
	maintenance. Revise the plan drawings to	Workspace" and the aerial site plans located in
	clearly indicate all locations where maintenance	Attachment 7, Tab 7A to more clearly explain these
	clearing, cutting, removal, or other alternation	designated areas. The Impact Avoidance, Minimization,
	is not part of proposed maintenance activities.	and Mitigation Procedures in Attachment 11, Enclosure E,
	[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)]

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.
LA 102	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.

LA 103

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 revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A_to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas.

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

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary

		Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal.
		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.
LA 103.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	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
	clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed	ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in

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)]

Attachment 7, Tab 7A_to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas.

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

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of

		water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal.
		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.
LA 103.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)]	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas.

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

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal.

		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.
LA 103.c	If construction, normal operation, or normal maintenance activities will require the clearing, cutting, removal, or other alteration of the vegetation in or adjacent to the wetland and streams the application must be revised to identify and discuss in detail the primary impacts and secondary impacts to these resources from the proposed project. The applications Environmental Assessment should be revised to discuss the resources and the impacts thereto. Compensatory mitigation may be necessary and required to compensate for impacts to these resources. [25 Pa. Code §§105.15(a), 105.13(e)(1)(x), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14),	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

	105.14(b)(11), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]	Mitigation Plan (Attachment 11, Enclosure F). However, the permanent conversions of wetland vegetative cover type for the Project occur in other counties; there is no permanent conversion of wetland cover type in Lancaster County.
LA 104	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. SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A_to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access

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

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal.

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.
LA 104.a	Revise the application plan drawings and application narratives, including but not limited to the project description and mitigation plan, to clearly and specifically state if vegetation clearing, cutting, removal, or other alteration is or is not proposed as part of the proposed projects' normal construction, operation, and maintenance. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(12), 105.14(b)(13), 105.14(b)(14), 105.11(d)]	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A_to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas.
		As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and

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

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal.

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.
LA 104.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)]	SPLP did not revise the plan drawings. Instead, SPLP revised both the Project Description located in Attachment 9 to define the terms used within the plan drawings such as "Permanent Access Road," "Permanent ROW," "Temporary ROW," and "Additional Temporary Workspace" and the aerial site plans located in Attachment 7, Tab 7A_to more clearly explain these designated areas. The Impact Avoidance, Minimization, and Mitigation Procedures in Attachment 11, Enclosure E, Part 4 details the construction, operation, and maintenance procedures in these designated areas. As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Permanent Impact" are areas where the "Permanent ROW", "Permanent Access Road", "ROW-Travel and Clearing LOD", "Station-LOD", and "Block Valve Setting-LOD" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a
		watercourse, floodway or body of water. These "Permanent Impacts" areas are proposed for permanent vegetation clearing, cutting, grubbing, removal, and

maintenance. However, wetlands will not be cut or mowed during general operation and maintenance.

As depicted on the aerial site plans, the DEP Chapter 105 jurisdictional areas defined as "Temporary Impacts" are areas where "Temporary ROW", Additional Temporary Workspace ("ATWS"), "ROW-Travel LOD", and "Temporary Access Road" intersect waters of the Commonwealth. These areas will receive both direct and indirect impacts resulting from the construction of a water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. These "Temporary Impacts" areas are proposed for temporary vegetation cutting, clearing, grubbing, and removal.

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.

LA 104.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). However, the permanent conversions of wetland vegetative cover type for the Project occur in other counties; there is no permanent conversion of wetland cover type in Lancaster County.
LA 105	The Mitigation Plan and Environmental Assessment state that conversion of Palustrine Forested Wetlands (PFO) is proposed to occur, that there will be a functional loss, but the loss is de minimus.	Comment is addressed below.
LA 105.a	Revise the Mitigation plan to replant the PFO wetlands in the permanent and temporary ROW with native trees if possible, and if not possible provide specific details and documentation on	In conventional lay areas, the pipelines will be trenched to achieve 4 feet of cover. Trees are excluded from the permanent ROW to allow aerial safety inspections, as well as provide access for repair and prevent the pipelines

	why this is not possible. [25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	from being compromised by tree growth. However, please refer to the Impact Avoidance, Minimization, and Mitigation Procedures (Attachment 11, Enclosure E, Part 4) that demonstrates additional efforts to maximize PFO restoration within the permanent ROW.
LA 105.b	Based on the Mitigation Plan, PSS wetlands are acceptable in the permanent ROW. Therefore, if replanting of PFO wetlands in the permanent or temporary ROW is not possible, revise the mitigation plan to replant converted PFO wetlands in the ROW with shrubs. [25 Pa. Code §§105.13(e)(1)(viii), 105.1, 105.14(b)(4), 105.14(b)(13), 105.18a(a), 105.18a(b)]	The application has been revised to include restoration plantings in PSS and PFO areas within the permanent ROW to reduce the amount of permanent vegetation covertype conversion in these areas. More details are provided in Attachment 11, Enclosure D; the Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4; and the Compensatory Mitigation Plan in Attachment 11, Enclosure F. There are no PFO wetlands located in the proposed permanent ROW in Lancaster County.
LA 105.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	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 2. The stand-alone compensatory mitigation plan has been revised and is located in Attachment 11, Enclosure F. A cumulative impact analysis is included at Attachment 11, Enclose E, Part 6.

	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)]	
LA 106	The application states that temporarily impacted	The planting plans for the restoration of PSS and PFO
	Palustrine Scrub Shrub (PSS) and PFO	areas is provided in the Impact Avoidance, Minimization,
	wetlands will be replanted with native trees and	and Mitigation Procedures provided in Attachment 11,
	shrubs, PSS wetlands in the permanent ROW	Enclosure E, Part 4. The procedures provide for the
	will be planted with wetland shrubs, and PFO	locations, species to be planted, density, size, timing,
	wetlands in the permanent ROW will be	goals, and objectives, and monitoring for successful
	allowed to revert to PSS/PEM wetlands.	restoration.
	Provide planting plans and details for these	
	areas and for the replanting of PFO areas in the	
	permanent and temporary ROWs. The planting	
	plans must identify the locations of the	
	plantings and wetlands, the species to be	
	planted, the planting density, the proposed size	
	of the plantings, planting timing, goals and	
	objectives for success, and a monitoring plan to	
	ensure re-establishment. [25 Pa. Code	
	§§105.13(e)(1)(ix), 105.18a(a),105.18a(b),	
	[105.20a]	
LA 107	Section 2.2.2.1 of the Mitigation Plan,	The Impact Avoidance, Minimization, and Mitigation
	Construction in Wetlands with Unsaturated	Procedures provided in Attachment 11, Enclosure E, Part
	Soils, conflicts with the rest of the application,	4 has been revised to indicate that temporary wetland
	which identifies that all wetland crossings will	matting will be used along the travel lane where any
	be crossed with mats or pads. Crossing	staging or work areas are proposed in wetlands regardless
	unsaturated wetlands without timber mats	of the wetlands saturated condition.
	would contribute to soil compaction, rutting,	
	and disturbance of the cut vegetation's roots.	
	Therefore, revise the Mitigation Plan to identify	

	that all wetland crossings shall use mats or pads. [25 Pa. Code §§105.21(a)(1), 105.13(e)(1)(ix), 105.15(a), 105.18a(a), 105.18a(b)]	
LA 108	Section 2.2.2.1 of the Mitigation Plan identifies that wetlands will be reseeded with a native wetland seed mixture; however, the mixture is not specified nor is it proposed on the plans. Revise the application to identify the seed mixture to be used and revise the E&S plans to indicate its use for wetland restoration in the Typical Wetland Restoration detail. [25 Pa. Code §§105.13(e)(1)(ix), 105.14(b)(4), 105.14(b)(13)]	The Impact Avoidance, Minimization, and Mitigation Procedures provided in Attachment 11, Enclosure E, Part 4 includes the details for standard and site-specific (including restored PSS and PFO habitats) wetland restoration, as well as invasive species control, monitoring, and reporting. The bank restoration details on the E&S Plans have been revised to indicate that stream banks will be reseeded in accordance with the approved seed mixes.
LA 109	The Alternatives Analysis states that the Alternatives Analysis is meant to be a summary of major actions taken to avoid/minimize impacts. The Alternatives Analysis must be a detailed analysis of alternatives, including alternative locations, routings, or designs to avoid or minimize adverse impacts and document and provide evidence that there is no practicable alternative which would not involve a wetland or that would have less adverse impact on a wetland. In addition, for the project to be water dependent as stated in the Alternatives Analysis, it must be based on the demonstrated unavailability of any alternative route location, or design or use of location, route or design to avoid or minimize adverse	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to provide a detailed analysis of alternative routings, locations, and designs to avoid and minimize impacts and to provide documentation/evidence that there are no practicable alternatives that would further avoid and minimize impacts.

	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:	
LA 109.a	The Alternatives Analysis states that the proposed project was co-located with an existing pipeline for the majority of the route. However, there is a route deviation from the Lebanon County border to wetland W8c that is away from the existing Sunoco pipeline proposed to occur within Lancaster County. No information, details, or documentation on alternate route selection to avoid and minimize impacts has been provided. Provide a detailed alternatives analysis which contains evidence and documentation on potential and avoided impacts for the existing alignment, proposed alignment, and other potential route alignments which documents that impacts cannot be further avoided and minimized. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

LA 109.b	Revise the Alternatives Analysis to discuss,	The Alternatives Analysis in Attachment 11, Enclosure E,
	evaluate, and provide a detailed analysis on	Part 3 has been revised to address this comment.
	alternative routes to avoid and minimize	
	impacts to High Quality Streams and	
	watersheds.[25 Pa. Code §§105.14(b)(7),	
	105.13(e)(1)(viii)]	
LA 109.c	Revise your alternatives analysis to discuss	The Alternatives Analysis in Attachment 11, Enclosure E,
	routing alternatives that were considered as	Part 3 has been revised to address this comment.
	alternatives to impacts Exceptional Value	
	wetlands. [25 Pa. Code §§105.13(e)(1)(viii),	
	105.14(b)(7), 105.18a(a)]	
LA 109.d	Some portions of the proposed ROW and	The Alternatives Analysis in Attachment 11, Enclosure E,
	pipelines directly abuts the maintenance	Part 3 has been revised to address this comment.
	corridor of the existing Sunoco pipeline;	
	however, in other portions the proposed ROW	
	has partial or near complete overlap with the	
	existing maintenance area and pipeline. No	
	discussion on this is provided in the alternatives	
	analysis, and it appears that more overlap of the	
	proposed ROW and the existing Sunoco	
	Maintenance corridor is practicable and would	
	further avoid and minimize impacts. Revise the	
	application accordingly to avoid and minimize	
	impacts by locating the proposed ROW with	
	overlap of the existing maintenance corridor, or	
	provide a detailed analysis and discussion with	
	specific details explaining why this overlap is	
	present in some areas and not others, and why	
	the proposed ROW cannot further overlap. [25	
	Pa. Code §§105.14(b)(7), 105.13(e)(1)(viii),	
	105.18a(a), 105.18a(b)]	

LA 109.e	It appears that several waters of the	The Alternatives Analysis provided in Attachment 11,
	Commonwealth could be crossed using	Enclosure E, Part 3 has been revised to include a
	trenchless installation methods. Revise the	discussion on the limitations of trenchless methods and
	application accordingly, or provide a revised	presents an attached trenchless feasibility assessment.
	alternatives analysis that incorporates a	
	discussion of alternative crossing techniques	
	(conventional bore, HDD, micro-tunneling,	
	etc.) that includes documentation and evidence	
	addressing each resource crossing and	
	explaining why trenchless installation methods	
	are not appropriate. [25 Pa. Code	
	§§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3),	
	105.13(e)(1)(viii)]	
LA 109.f	It appears that primary impacts and secondary impacts from the Temporary ROW and ATWS's can be avoided by locating them outside the floodway of streams. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	As demonstrated in the Alternatives Analysis, the Project has been designed to avoid and minimize impacts to wetlands and waterbodies (including streams and floodways of streams) to the extent feasible. SPLP has narrowed the Project ROW from 75 to 50 feet at resource crossings, and therefore necessarily relocated temporary workspace (including Temporary ROW and ATWSs) adjacent to streams (and/or floodways) in order to install the pipeline effectively and to restore disturbed workspace as efficiently as possible. Furthermore, the Project would implement E&S controls during construction and primary and secondary impacts at these workspaces would be temporary in nature and restored to existing conditions.
		Please refer to Attachment 11, Enclosure D, Project
Ι Λ 100 α	It appears but is not described in the	Impacts for additional discussion.
LA 109.g	It appears, but is not described in the	A stand-alone alternatives analysis document, which
	application, that HDD was assumed by the	presents the justification for the selected wetland and
	applicant to be the crossing method presenting	stream crossings that will be made by HDD, has been

	the least potential impact to water resources and aquatic species. Revise the alternatives analysis to provide justification for the selection of which water resource (streams and wetlands) crossings will be made by HDD. [25 Pa. Code §§105.14(b)(7), 105.18a(b)(3), 105.18a(a)(3), 105.13(e)(1)(viii)]	added to the application materials and is located in Attachment 11, Enclosure E, Part 3. The alternatives analysis includes and incorporates relevant information by reference presented in a stand-alone trenchless feasibility assessment, which is located in Attachment 11, Enclosure E, Part 3, Appendix C.
LA 109.h	The following pertain to streams S-A82, S-A83, S-A80, S-A81, S-A79, S-A78, and S-A77 and wetlands A54 and A55[25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]:	NA - Heading
LA 109.h.i	It appears that impacts could be avoided and/or minimized by locating the proposed pipelines and ROW to the North along the South side of State Route 897, or north of Route 897, and could utilize "Dry Bore" construction methods. The alternatives analysis does not provide details or evidence documenting that there are no practicable alternatives to avoid and minimize impacts. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts.	Wetlands A54 and A55 and waterbodies (streams) S-A77, S-A78, S-A79, S-A80, S-A81, S-A82, and S-A83 are proposed to be crossed using HDD methods. Therefore, there will be no disturbance in these wetlands and waterbodies and impacts to the wetlands and waterbodies will be avoided. The wetland and waterbody acreage impacts that are listed in the wetland and waterbody impacts table (Attachment 11, Tables 2 and 3), represent calculations of the pipe width multiplied by the length of the crossing under the wetland/waterbody per DEP's guidance, and not actual disturbance.
LA 109.h.ii	The February 29, 2016 Bog Turtle Conservation Plan states that "The agricultural conservation easements in this area have constrained the effort and has forced SPLP to	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

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	parallel their existing 8-inch line in this area."	
	However, based on the Agricultural Security	
	Areas of West Cocalico Township map on the	
	Lancaster County Agriculture Preservation	
	Board's website, Sunoco is proposing new	
	ROW adjacent to the existing pipeline and	
	along a different route from the new pipeline on	
	preserved farmland in Lancaster County.	
	Therefore, it appears that locating the proposed	
	pipelines away from the existing pipeline to	
	avoid and minimize impacts is practicable.	
	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.	
LA 109.i	It appears that locating the proposed pipelines	The Alternatives Analysis in Attachment 11, Enclosure E,
	and ROW to the south of the proposed crossing	Part 3 has been revised to address this comment.
	of S-A76 and wetland A52 could avoid impacts	
	to wetlands. The discussion mentions	
	previously undisturbed area and residences;	
	however, the area is in active agricultural fields	
	and the pipelines appear to already be proposed	
	adjacent to the residences. 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]	
LA 109.j	It appears that locating the proposed pipelines	The Alternatives Analysis in Attachment 11, Enclosure E,
	and ROW to the south of the proposed crossing	Part 3 has been revised to address this comment.
	of S-A88 and wetland A56 could minimize the	
	amount of EV wetland impacted and allow for	
	the use of the "dry bore" construction method.	
	The analysis states that there would be impacts	
	to undisturbed habitat and nearby residences.	
	However, the proposed pipelines already cross	
	near the residences and the area is in active	
	agricultural production. Utilization of a "Dry	
	Bore" would also allow use of a "Permanent	
	Easement (no surface disturbance)" instead of a	
	"Permanent ROW" in the stream and wetland	
	resources. 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]	
LA 109.k	It appears that the auger bore under stream S-	The Alternatives Analysis in Attachment 11, Enclosure E,
	B82 could be extended to also bore underneath	Part 3 has been revised to address this comment.
	wetland B72, or a separate "dry bore" could be	
	utilized to install the pipelines underneath	
	wetland B72 to minimize impacts. Revise the	
	application accordingly to avoid and minimize	

	impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	
LA 109.1	It appears that impacts to wetland B72 could be avoided by routing the pipelines and ROW North of the wetland. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
LA 109.m	It appears the temporary impacts to stream S-B82 could be avoided by removing the proposed temporary ROW from the stream east and west of SR 897. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7)]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

LA 109.n	It appears that impacts to stream S-B83 and wetland B74 could be avoided and/or minimized by locating the proposed pipelines and ROW north of Pond-B11A or between the existing Sunoco pipeline and SR 897. 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	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
LA 109.0	§§105.13(e)(1)(viii), 105.14(b)(7), 105.18a] The proposed Permanent ROW is greater than 50ft through wetland B74 and stream S-B83. It is unclear why the ROW width is so large in this area. It appears that reducing the ROW width could minimize impacts to this stream and wetland. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7),	There is an existing agricultural easement in this area. The Permanent ROW displayed in this area is the existing SPLP easement and is one of the few areas that it is expanded beyond 50 feet. The current workspace design provides enough room to properly segregate topsoil through this active agricultual area, and ensures proper and safe installation of the pipeline. A site-specific plan has been developed for this area and is included in Attachment 7, Tab 7D. A revised Alternatives Analysis is provided in Attachment 11, Enclosure E, Part 3.
LA 109.p	It appears that impacts to wetland B5 and stream S-B8 could be avoided by locating the proposed pipelines to the north around the wetland and stream along the newly constructed	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.

	access road to Sunoco's pump station. 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]	
LA 109.q	It appears impacts to wetland B7 could be avoided by locating the proposed pipelines and ROW south of wetland B7. Revise the application accordingly to avoid and minimize impacts, or provide a detailed analysis of alternative routes, designs and methods to avoid and minimize these impacts which documents and provides evidence that other routes and designs would not further avoid or minimize impacts. [25 Pa. Code §§105.13(e)(1)(viii), 105.14(b)(7), 105.18a]	The Alternatives Analysis in Attachment 11, Enclosure E, Part 3 has been revised to address this comment.
LA 110	If any changes to the proposed route occur, revise all parts, and 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)]	All parts and components of the application have been revised to reflect all changes to the pipeline's proposed route. The Project Description located in Attachment 9 includes all approved conservation plans. All of the PNDI agency correspondence to-date is included in Attachment 6.
LA 111	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	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

	restrictions, the Department recommends identifying the time-of-year restrictions on the plans. [25 Pa. Code §§105.14(b)(4), 105.14(b)(6)]	stream restrictions. All of the restrictions and avoidance measures committed to and approved by PNDI agencies are included in a summary table in the Project Description, Attachment 9, within the PNDI agency final determination letters in Attachment 6, and the accepted Conservation Plans in Attachment 6, Tab 6B. The same notes in the Project Description are reflected within the E&S Plan notes. Trout stream restrictions and other sensitive species restrictions are also noted on aerial site plans and E&S Plans, however due to the sensitive nature of some of the information, not all is depicted. SPLP will implement a comprehensive Environmental Training and Inspection program designed specifically to ensure contractors are appropriately notified and are adhering to such restrictions.
LA 112	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. Agency notification should occur when inadvertent returns happen in any water resource, not just bog turtle areas. 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	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.

	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)]	
LA 113	Provide consistent and up-to-date plans to the	All Plans, maps, and figures have been updated to contain
	Department and Clay and West Cocalico	consistent information. Clay and West Cocalico
	Townships. [25 Pa. Code §§105.21(a)(1),	Townships have been sent the revised information.
	105.13(e)(1)(v), 105.13(e)(1)(vi),	
	105.13(e)(1)(i)(A), 105.13(e)(1)(i)(C)]	

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

Sincerely, Tetra Tech, Inc.

Sandra J. Lare

Environmental Planner/Permitting Specialist

Sandra Hare

Enclosures: Revised Chapter 105 Joint Permit Application

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

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