

ENCLOSURE D – PROJECT IMPACTS

A. PROJECT IMPACTS ON SENSITIVE RESOURCES

A.1 National, State or Local Park, Forest, or Recreation Areas

The Project crosses several parcels of national, state, and local parks and recreation areas, as listed in the table below.

For all parks and recreation areas crossed by the Project, SPLP is working with the appropriate land administering agency to obtain the required land easements, licenses, and approvals on those lands.

National, State or Local Park, Forest, or Recreation Areas Crossed by the Pennsylvania Pipeline Project

County	Name of Area	Distance Traversed (miles)	Comment
Westmoreland	Bushy Run Battlefield State Park	0.35 (historical property)	Project route is entirely within an existing ROW easement that was previously approved by PHMC. SPLP is coordinating with the Pennsylvania Bureau of Historical Preservation and Pennsylvania Historical Museum Commission to gain approval of the pipeline along SPLP's existing pipeline easement on this land
Westmoreland	Loyalhanna Lake National Recreation Area	0.46	SPLP is working with U.S. Army Corps of Engineers, Pittsburgh District (Real Estate) to obtain an easement for the pipeline across this property.
Westmoreland – Indiana	Federal-Owned Property at Conemaugh River Crossing	0.70	SPLP is working with U.S. Army Corps of Engineers, Pittsburgh District (Real Estate) to obtain an easement for the pipeline across this property.
Indiana	Pine Ridge County Park	1.32	SPLP is working with Indiana County to obtain an easement agreement for the pipeline across this park.
Indiana & Cambria	Gallitzin State Forest	Indiana: 0.04 Cambria Parcel 1: 0.90; Cambria Parcel 2: 1.14	SPLP is working with Pennsylvania Department of Conservation and Recreation (PADCNR), Bureau of Forestry to obtain a License Agreement for the pipeline across this property.
Huntingdon	Raystown Lake National Recreation Area	4.07	SPLP is working with U.S. Army Corps of Engineers, Baltimore District (Real Estate) to obtain an easement for the pipeline across this property.
Perry	Tuscarora State Forest	Parcel 1: 7.34; Parcel 2: 1.04	SPLP is working with PADCNR, Bureau of Forestry to obtain a License Agreement for the pipeline across this property.

County	Name of Area	Distance Traversed (miles)	Comment
Cumberland	Appalachian Trail	0.02	SPLP is working with the National Park Service to obtain an easement agreement for the pipeline across this property.
Chester	Marsh Creek State Park	0.09	SPLP is working with Pennsylvania Department of Conservation and Recreation (PADCNR), Bureau of Forestry to obtain a License Agreement for the pipeline across this property.

A.2 Natural, Wild, or Wilderness Areas

No specially designated Natural, Wild, or Wilderness Areas are known to be crossed by the proposed Project.

A.3 National, State, or Local Historic Sites

Based on site file review at the Pennsylvania Historical and Museum Commission (PHMC), the following table presents the sites that are listed on the National Register of Historic Places (NRHP) and within the Study Area for the Project. SPLP is in consultation with the PHMC to obtain concurrence that the Project will have no effect on these sites.

SPLP has performed Phase I and Phase II Cultural Resource Investigations (including field shovel testing), and is in consultation with Pennsylvania Historic and Museum Commission for Project review. None of the sites in the following table are located in the proposed construction workspaces associated with stream and wetland crossings.

National Historic Sites In or Adjacent To Study Area for Pennsylvania Pipeline Project

County	Name of Area / Type of Site	Comment
Westmoreland	National Historic Landmark and Historic Archaeological Site "Bushy Run Battlefield" (1700-1775, Military) (36WM0598), Penn Township	Project route is entirely within an existing ROW easement that was previously approved by PHMC. SPLP is coordinating with the Pennsylvania Bureau of Historical Preservation and Pennsylvania Historical Museum Commission to gain approval of the pipeline along SPLP's existing pipeline easement on this land. Site 36WM0598 is located approximately 2,000 feet east of the survey corridor.
Blair	Historic Archaeological Site "Royer Mansion" (date unspecified, Domestic) (36BL0034), Woodbury Township (NRHP-Listed)	Site 36BL0034 is located approximately 2,438 feet south of the survey corridor.
Cumberland	Allegheny Portage Railroad of the Pennsylvania Canal (National Historic Landmark)	Adjacent but not traversed (SPLP changed the route to avoid this site)
Dauphin	Prehistoric Archaeological Site (36DA0089), Swatara Township (NRHP-Listed)	Site 36DA0089 is located approximately 2,786 feet north of the survey corridor.

County	Name of Area / Type of Site	Comment
Berks	Prehistoric Archaeological Site (36BK0588), Caernarvon Township (NRHP-Listed)	Site 36BK0588 is located approximately 4,338 feet southwest of the survey corridor.
Berks	Historic Archaeological Site “Joanna Furnace Mansion” (1700-1925+, Domestic) (36BK0624), Robeson Township (NRHP-Listed)	Site 36BK0624 is located approximately 1,632 feet northeast of the survey corridor.
Berks	Historic Archaeological Site “Joanna Furnace Industrial/Business and Charcoal Barn” (1700-1925+, Industrial) (36BK0625), Robeson Township (NRHP-Listed)	Site 36BK0625 is located approximately 1,196 feet northeast of the survey corridor.
Chester	Prehistoric Archaeological Site (36CH0611), West Whiteland Township (NRHP-Listed)	Site 36CH0611 is located approximately 3,970 feet southwest of the survey corridor.
Chester	Historic Archaeological Site “Jacob Zook House” (1700-1900, Farmstead) (36CH0694), West Whiteland Township (NRHP-Listed)	Site 36CH0694 is located approximately 1,520 feet southwest of the survey corridor.
Chester	Historic Archaeological Site “George Massey House” (1700-1900, Farmstead) (36CH0695), West Whiteland Township (NRHP-Listed)	Site 36CH0695 is located approximately 2,393 feet west of the survey corridor.
Chester	Historic District “Pleasant Hill Plantation” (Key #079669)	NHLD is across the road from pipeline permanent ROW but is within the 200-ft survey corridor
Chester	Historic Building “Exton Hotel” (Key #064335) (NRHP-Listed)	Adjacent to pipeline and within permit area of stream crossing but avoided by HDD
Chester	Historic Building “Greenwood School” (Key #050645) (NRHP-Listed)	Adjacent to pipeline but avoided by HDD
Chester	Historic Building “William Everhart House” (Key #064476) (NRHP-Listed)	Outside/adjacent to study corridor and avoided by HDD

A.4 National Natural Landmarks

No designated national natural landmarks are crossed by the proposed Project.

A.5 National Wildlife Refuges

No national wildlife refuges are crossed by the proposed Project.

A.6 Cultural or Archaeological Landmarks

(See the response for A.3.)

A.7 State Game Lands

The Project crosses several State Gamelands, as listed in the following table. SPLP is coordinating with the Pennsylvania Game Commission (PGC) to obtain a license agreement to cross these lands.

State Game Lands Crossed by the Pennsylvania Pipeline Project

County	Name of Area	Distance Traversed (miles)	Comment
Indiana	State Game Lands No. 276	0.77	SPLP is working with PGC to obtain a License Agreement for the pipeline across all State Game Lands properties.
Cambria	State Game Lands No. 198	0.54	
Blair	State Game Lands No. 198	0.21	
Blair	State Game Lands No. 118	0.56	
Blair	State Game Lands No. 147	0.34	
Blair	State Game Lands No. 198	1.42	
Huntingdon	State Game Lands No. 118	0.13	
Huntingdon	State Game Lands No. 71	2.53	
Lebanon	State Game Lands No. 46	1.41	
Lancaster	State Game Lands No. 46	1.30	
Berks	State Game Lands No. 52	0.18	

A.8 Federal, State, Local or Private Plant or Wildlife Sanctuaries

The Project crosses one known plant sanctuary (plant: *racemed milkwort*), crossed in Tuscarora State Forest (Perry County). SPLP is working directly with PADCNR, Bureau of Forestry to address this area in conjunction with the Licence Agreement for the Project on State Forest lands.

A.9 Prime Farmland

As shown on the maps in Enclosure B, the proposed pipeline will cross soils classified as prime farmland. SPLP will take precautions during construction and restoration to protect these special soils.

Potential short-term impacts to prime farmland soils associated with construction of the proposed Project may include increased soil erosion and sedimentation on steep slopes and at stream crossings due to the removal of vegetation, compaction of soils caused by construction vehicles and equipment, inclusion of rock fragments in the topsoil caused by blasting, and poor revegetation of the soil types impacted by the proposed Project.

To prevent and minimize impacts on prime farmland soils, in actively farmed areas SPLP will implement construction measures to avoid and minimize impacts on soil productivity, including segregation and conservation of topsoil, decompaction if necessary, and compensation of the landowner for temporary cessation of crop production during the construction period.

Because the pipeline ROW will be restored and most agricultural activities (except of orchards, tree farms, and vineyards) will be allowed to resume following installation of the pipelines, the Project will not have long term impacts on Prime Farmland soils.

B. ENVIRONMENTAL IMPACTS

B.1 Aquatic Habitats

For initial siting of the proposed Pennsylvania Pipeline Project, SPLP was prudent in siting potential worksites to minimize impacts to waterbodies in general, to the extent practicable for the entire Project. However, because this is a linear project, total avoidance of all wetlands and streams was not possible or practicable. The lists and acreage of stream and wetland impacts (truncated to address only this county's application) are provided in Tables 1 through 4 in this Attachment 11.

As listed in Table 2 (within this Attachment 11), the proposed Project will temporarily impact a number of streams. Construction of the proposed Project across waterbodies would result in minor, short-term impacts. These impacts would occur as a result of in-stream construction activities or construction on slopes adjacent to stream channels. These activities would result in a temporary localized increase in turbidity levels and downstream sediment deposition. Sediments that become suspended during the short period of in-stream disturbance are expected to settle out of the water column relatively quickly. Furthermore, erosion and sedimentation (E&S) controls will be installed and maintained in accordance with SPLP's E&S plans to minimize impacts on streams and wetlands. See Attachment 18 of this application – Mitigation Plan, Section 2.1, for a more detailed discussion of impacts to streams, impact avoidance and minimization measures, and a description of the stream crossing construction methods that will be used.

Although the Project crosses some streams with fisheries designations, construction and operation of the Project will not impair the ability of these streams to continue to provide habitat for aquatic species. SPLP will attempt to construct stream crossings in accordance with the Pennsylvania Department of Environmental Protection (PADEP) and Pennsylvania Fish and Boat Commission's (PAFBC's) restrictions on construction timing in trout streams. In general, these restrictions prohibit construction in wild trout streams between October 1 and December 31, and prohibit construction in stocked trout streams between March 1 and June 15. SPLP anticipates any required restrictions will be written into the permit on a stream-specific basis.

As listed in Table 3 (within this Attachment 11), the proposed Project will directly impact a number of wetlands. In general, impacts to wetland vegetation resulting from the proposed Project will be minimal and temporary in nature. Impacts from construction of the proposed Project include temporary disturbance to soils and hydrology. Topsoil will be separated during construction and then replaced to original horizon and elevation in wetland areas. This will allow the direction, volumes, and rates of flow to be restored to pre-construction conditions and will promote re-establishment of hydrophytic vegetation. No permanent fill in wetlands is proposed; consequently, no loss of wetland area would result from construction or operation of the proposed pipeline. See Attachment 18 of this application – Mitigation Plan, Section 2.2, for a more detailed discussion of impacts to wetlands, impact avoidance and minimization measures, and a description of the wetland crossing construction methods that will be used.

a. Food chain production

All of the wetlands to be traversed are considered to have some potential for food chain production and support a variety of herbivorous species and their predators. During construction of the proposed Project, vegetation will be removed and the animals displaced. In the case of less mobile species, mortality of some individuals could result from encountering construction equipment. Until restoration of the proposed Project area is completed, the food chain production in the affected wetlands will be altered. However, most areas are expected to be restored to original food chain production with the restoration of vegetation, which will occur gradually within the next one or two growing seasons.

Likewise, aquatic life would be temporarily impacted at, or downstream from, the proposed construction sites. Potential impacts include the degradation of benthic habitat due to direct disturbance to bottom substrate in the trench zone, and associated disturbances to aquatic vegetation and invertebrates. Indirect impacts from sedimentation would affect areas downstream of some sites depending on the type of construction method, but generally conditions would be expected to resolve relatively quickly (*e.g.*, dry crossing methods involving in-stream excavation would have a limited effect on downstream sedimentation for a period of 1 to 3 days).

b. General habitat

1. Nesting

During construction of the proposed Project, the timing of the work will determine the extent of short-term disturbance on nesting. In particular, vegetation clearing during the nesting season could result in destruction of nests, if any are located in the proposed construction ROW. The potential for nesting, and nest loss, is considered to be greatest in wooded (forested and shrub) areas, and lowest within the routinely maintained existing ROW. SPLP has routed the Project parallel and adjacent to (and overlapping) existing ROWs to the maximum extent practicable, which will serve to reduce the potential for nest loss.

The nesting potential for birds requiring forest edge conditions or canopies for nesting will be shifted to the new ROW edge. The nesting potential for birds that nest on or near the ground will be increased and reestablished within the ROW. There will be a permanent, but negligible, decrease in the nesting potential for birds that require forest interior habitat for nesting.

During operation, the Project would not have adverse impacts on spawning.

2. Spawning

Construction of the proposed pipeline may have an adverse effect on fish spawning if conducted during the fish spawning seasons. However, short-term, direct impacts to

spawning fish are generally avoided by adherence to permit conditions restricting work within stream channels to dates outside the fish spawning seasons. SPLP would adhere to the PADEP's/PAFBC's in-stream construction time windows designed to reduce impacts to fisheries; SPLP anticipates any required restrictions will be written into the permit on a stream-specific basis.

Alternatively, short-term, direct impacts to spawning fish may be avoided by use of crossing methods that do not disturb the stream bed or banks (*e.g.*, horizontal directional drilling). Indirect, long-term impacts to fish spawning could occur if substantial changes to stream substrate or current patterns result from pipeline construction. However, substantial changes to stream substrate and current patterns are not anticipated as a result of the Project because the native stream substrates will be replaced and stream bed and banks will be restored as closely as possible to the original contours.

Some amphibian species may spawn in depressions in seasonally flooded wetlands. If construction occurs during the spawning season, some losses may occur. After pipeline construction and wetland restoration are completed, there is not expected to be a long-term adverse impact on amphibian spawning.

During operation, the Project would not have any impact on spawning.

3. Rearing

Because the wetlands in the Project area are not considered to have a high potential for wildlife rearing, the impacts to wildlife rearing are expected to be minimal. Wildlife rearing in adjacent areas may be temporarily affected or displaced to other areas during active construction as a result of human activity and noise on the construction ROW.

During operation, the Project would not have adverse impacts on rearing.

4. Resting

All of the wetland types are believed to be used for resting by a variety of birds and mammals. For reasons stated above, resting probably occurs more frequently in wetland areas located some distance from the existing ROW.

5. Migration

The utilization of wetland habitats traversed by the proposed Project during migration has not been quantified during surveys conducted for the Project. Most wetland habitats traversed by the proposed Project are small and isolated, and are not considered key resting locations for birds on route to breeding or wintering grounds. However, some of the wetland complexes that support large areas of open water, including ponds or reservoirs, may be used by migrating waterfowl. In addition,

migrating birds would be reasonably expected to cross the proposed Project (being a more than 300-mile long west-to-east linear feature) at some points along its length. Impacts from the Project on bird migration patterns are expected to be minimal, based on the limited width of clearing and the limited duration of construction activities within any particular location.

Direct impacts to migrating fish (trout) species would generally be avoided by adherence to permit conditions and restricting work within stream channels to dates outside the fish spawning/migration seasons. In addition, none of the stream crossing techniques employed by SPLP would present a long-term obstacle preventing fish from moving upstream or downstream.

During operation, the Project would not have adverse impacts on migration.

6. Feeding

Construction activities would, in the short-term, limit the capacity of wetland habitats and streams to serve as feeding areas, particularly in and adjacent to the construction workspace areas. Excavation of wetland habitats would temporarily remove primary production, causing wildlife species to seek other areas to feed.

Crossings of streams may temporarily increase local turbidity levels and downstream sedimentation, and result in the removal of overhanging woody vegetation, all of which may inhibit feeding activities of aquatic organisms and use by other wildlife for drinking.

During operation, the Project would not have any impact on feeding.

7. Escape Cover

Incremental widening of the existing ROW would have a negligible, short-term effect on escape cover. After construction and revegetation are completed, the existing ROW will be widened and will extend essentially the same escape cover that existed prior to construction. However, the understory layer of shrubs and small trees that had developed because of increased light availability along the forested ROW edge will require more time to reestablish.

8. Other

Impacts to other general habitats were not identified during the wetland delineation surveys or stream characterization.

c. Habitat for Threatened and Endangered Plant and Animal Species

Attachment 6 of this application provides a summary of the agency consultations and threatened and endangered plant and wildlife surveys that have been and are being

completed for this Project. Through the ongoing coordination with the PADCNr, PGC, PAFBC, and U.S. Fish and Wildlife Service (USFWS), SPLP expects to receive either a “no effect/impact” or a “not likely to adversely affect” determination from each agency. Any commitments made by SPLP during this coordination will be stated with the agencies’ determination letters and mirrored within project conservation plans and included within the project description. These commitments may include measures such as fencing, time of year restrictions, and/or biological monitoring.

d. Environmental study areas

1. Sanctuaries

The Project crosses one known plant sanctuary (plant: *racemed milkwort*), crossed in Tuscarora State Forest (Perry County). SPLP is working directly with PADCNr, Bureau of Forestry to address this area in conjunction with the Licence Agreement for the Project on State Forest lands.

2. Refuges

There are no designated wildlife refuges known to occur within or near the proposed Project area, and none are expected to be impacted by the proposed Project.

B.2 Water Quantity and Streamflow

a. Natural drainage patterns

Construction of the proposed Project is not expected to affect natural drainage patterns. There are no stream relocations, enclosures, or channel deepening/dredging activities proposed in conjunction with the pipeline crossing. Upon completion of construction in wetlands, all topsoil disturbed during construction will be replaced to original horizons and elevations. This will restore the direction, volumes, and rates of flow to pre-construction conditions and will promote re-establishment of hydrophytic vegetation. SPLP will implement the stream and wetland construction and restoration procedures outlined in the Project-specific E&S Plan, which will prevent changes to the natural drainage patterns of streams and wetlands crossed.

b. Flushing characteristics

Except for the Project area wetlands that are associated with streams, there are no currents present within the wetlands associated with the proposed Project. Construction of the proposed Project is not expected to have a significant effect on flushing characteristics of streams. ROW crossings generally will occur in sections of streams that are relatively straight, so that crossings are perpendicular and thereby of minimal impact. Furthermore, stream channels will be restored to pre-construction contours, thereby restoring pre-existing flushing characteristics.

c. Current patterns

Except for the Project area wetlands that are associated with streams, there are no currents present within the Project area wetlands. The drainage patterns of the Project area watersheds are dendritic and do not generally contain complex current patterns. Natural meanders with minimal obstructions are present. Many of the larger streams (which are the most likely aquatic resource to have currents) are proposed to be crossed using the horizontal directional drill method, thereby avoiding work directly in the stream currents. The Project will not result in long-term changes to current patterns in streams of wetlands.

d. Groundwater discharge for baseflow

Construction of the proposed Project is not expected to affect groundwater discharge that may be important for supporting stream baseflow. Trench plugs will be installed in the trench at the entry and exit of wetlands to prevent draining of wetlands along the trench line. In addition, there are no groundwater control features or interceptor structures incorporated into the Project design. Topographic contours and drainage patterns will be restored following construction of the Project, and impacts to groundwater discharge are not anticipated.

e. Natural recharge area for ground and surface waters

Most of the wetlands traversed by the proposed Project occur in areas of groundwater discharge and are not believed to be natural recharge areas for groundwater. They may however, act as recharge areas for surface waters. However, the pipeline is not expected to alter natural drainage patterns, flushing characteristics, or current patterns. Furthermore, the Project does not involve addition of large expanses of new impervious surfaces. Therefore, long-term impacts to natural recharge of surface waters as a result of construction and operation of the proposed Project are unlikely.

f. Storm and floodwater storage and control

Construction of the proposed Project is not expected to impact either natural drainage patterns or flushing characteristics. Construction will not result in a loss of wetlands area, and will not involve construction of major aboveground facilities in floodplains or floodways. Overall, construction of the proposed Project is not expected to negatively impact the ability of streams or wetlands to either store or control storm and flood waters.

B.3 Water Quality

a. Preventing pollution

To prevent pollution SPLP will implement pollution prevention procedures outlined in its E&S Plan for protection of water quality during Project construction. In addition, SPLP has applied for and will adhere to all provisions of the Pennsylvania Erosion and Sedimentation Control General Permit No. 2 (ESCGP-2) to minimize pollution from

erosion and sedimentation. Finally, SPLP will implement a spill prevention, control and countermeasure plan to prevent and address spills of hazardous construction materials during construction. Implementation of these plans and compliance with the permits will minimize the potential for pollution to the maximum extent possible.

b. Sedimentation control and patterns

Procedures used to control erosion and sedimentation into streams and wetlands during pipeline construction are provided in SPLP's E&S Plan for the Project. In addition, SPLP will apply for and adhere to all provisions of the Pennsylvania ESCGP-2 to minimize pollution from erosion and sedimentation. After construction is completed, wetland contours will be restored, pre-construction drainage patterns will be re-established, and the wetland will be allowed to naturally revegetate. Implementation of the E&S Plan and compliance with the permit will ensure that impacts associated with erosion and sedimentation are minimized or avoided.

c. Salinity distribution

Only freshwater streams and wetlands were observed during field surveys for the Project. There was no evidence of naturally occurring or human-induced salinity associated with the freshwater wetlands and waterbodies within the proposed Project area.

d. Natural water filtration

The removal and disturbance of vegetation during construction will temporarily reduce the natural water filtration ability along the ROW. However, erosion/sedimentation filtration devices will be implemented during construction to provide adequate water filtration to minimize stormwater pollution. After installation of the pipeline, the ROW will be seeded and revegetated, restoring permanent vegetation and natural water filtration for the long term. In addition, the sizes and dimensions of the wetlands will not be altered. Therefore, construction of the proposed Project is not expected to have a long-term adverse impact upon the natural water filtration capabilities of riparian areas or wetlands.

B.4 Recreation

a. Game species

The proposed Pipeline crosses several Pennsylvania State Game Lands and two State Forests (see maps in Enclosure B and listed in the table in Sections A.7 and A.1 of this Enclosure (Enclosure D). Hunting occurs on these state-owned lands and is also likely on some privately owned properties crossed by the proposed pipeline.

Construction of the proposed Project would result in minor, short-term impacts to hunting, but these will be limited to the periods of active construction. Hunting activities and construction activities in the same area are not compatible and will be prohibited from occurring at the same time, for safety reasons. The Project construction/restoration

schedule may overlap with the hunting season of a few game species and therefore restrict hunting opportunities near the pipeline ROW. SPLP will work to adhere to the “no-work” schedules prescribed by the Pennsylvania Game Commission (for the Project crossing State Game Lands) and the PADCNr, Bureau of Forestry (for the Project crossing State Forest areas), to minimize conflicts with hunting activities. Similarly, SPLP will work with private landowners to avoid conflicts with hunting. After pipeline construction and restoration, no impacts on populations of game species, or hunting, are anticipated. Future hunting activities will be unaffected.

b. Non-game species

The level of recreational activities involving non-game species, such as bird watching, wildlife photography, and amateur naturalist study, occurring in wetlands of the proposed Project area is not known.

Recreational activities involving non-game species are not expected to be significantly affected by construction of the proposed Project. Construction impacts will be limited to the periods of active construction, when recreational activities will be precluded for safety reasons. After pipeline construction and restoration, there should be no impacts on recreational activities involving non-game species.

c. Fishing

Fishing activities are believed to be common throughout the Project area, due to the presence of high quality recreational and sport fishing opportunities and available access. Many of the waters in Project area are designated Wild Trout waters, Approved Trout Waters, and also, warmwater fisheries. Short-term impacts to recreational and sport fishing activities will be associated with the preclusion of these activities within the Project area during construction. Additional temporary impacts associated with waterbodies that support fish are described in Section B.1, which include increased turbidity, which may temporarily affect local downstream fishing opportunities. No long-term impacts to fishing opportunities are expected to occur.

d. Hiking

During construction, hiking through the construction corridor will be prohibited. The Pipeline crosses several hiking trails, including public trails and trails located on private land. The existing pipeline ROW already forms a long, linear, relatively unobstructed corridor, which offers the potential for use as a hiking trail; however, the amount of hiking that occurs along the entire corridor is not expected to be significant, since most of the existing ROW passes through private properties. Impacts to hiking opportunities are expected to be short-term and limited to the time needed for construction of the proposed Project.

e. Observation (plant/wildlife)

There is a high potential for recreational plant or wildlife observation within the proposed Project area. During construction, access to the Project area for the purpose of wildlife viewing will be prohibited. Noise and activities associated with construction of the proposed Project are expected to result in wildlife avoidance of the Project area, so impacts to wildlife observation is expected to be minor, and limited to the time needed for construction. The ROW would be restored and revegetated, and wildlife would be expected to return to the Project area upon completion of construction and restoration activities; therefore, no long-term impacts to wildlife observation are expected.

f. Other

Additional recreational activities that may occur in or near the proposed Project include biking, backpacking, camping, picnicking, horseback riding, canoeing, kayaking, boating, rafting, scenic drives, cross-country skiing, and motorized vehicle use (i.e., all-terrain vehicles, snowmobiles). During construction, access to the Project area for the purpose of recreation will be prohibited. Impacts to recreation opportunities are expected to be short-term and limited to the time needed for construction of the proposed Project.

B.5 Upstream and Downstream Property

The proposed Project will not cause long-term degradation of water quality, alter flow volumes, or change the direction of flow. In addition, operation of the proposed Project is not expected to interfere with the normal riparian rights of upstream/downstream landowners.

B.6 Other Environmental Factors

There were no other environmental factors of concern identified during the field surveys or associated research activities conducted for the proposed Project.

C. ENVIRONMENTAL IMPACTS ON ADJACENT LAND AND WATER RESOURCES

Indirect impacts to adjacent lands or water resources resulting from construction of the proposed Project include temporary impacts to water quality downstream from stream crossing locations. These impacts would be temporary and limited to the time of construction, as discussed in Section B.3. All other disturbance along the proposed Project would be site specific.

D. CUMULATIVE IMPACTS

Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of one action when added to other past, present, and reasonably

foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other action.”

SPLP does not have a list of all of the various recent, ongoing, or future proposed projects in the vicinity of the proposed Pennsylvania Pipeline Project. However, with the increased development of shale gas in recent years, other recent, ongoing, and/or proposed gas development and pipeline expansion projects have been increasing in Pennsylvania over the past several years, similar to the proposed Project. It is fair to assume that other projects potentially affecting streams and wetlands in Pennsylvania would include energy development and energy transportation projects (including other new pipelines), road/bridge infrastructure repair and expansion projects, and land development activities associated with residential and commercial developments.

The implementation of the Project and other ongoing and future projects in the vicinity of the Project has potential for cumulative impacts resulting from earth disturbances associated with soil excavation and construction activities. Minor erosion and sedimentation from each of these projects, when considered cumulatively, could result in potentially greater cumulative soil erosion/sedimentation impacts to waterbodies and wetlands located in the vicinity of each project. Cumulatively, these effects could adversely impact users of these waterbodies and wetlands, as well as habitat for fish and wildlife.

By routing the new pipelines parallel and adjacent to SPLP’s and others’ existing ROWs for most of the Project’s length, cumulative impacts resulting from the proposed Project will be greatly reduced. This has eliminated the need to create a new utility corridor across the Commonwealth. Through the use of the existing cleared ROW areas for construction workspace, and the width of proposed new vegetation clearing has been minimized. To help further minimize cumulative effects, this Project and others will obtain and adhere to the conditions of all required permits, plans, and regulatory agency agreements.

The Project does require support site in form of material fabrication and storage yards, use of public and non-public roads, and power supply support as described below.

Support Sites (Company Material Storage Yards)

Materials for fabrication of the above ground facilities on the project will be stored at an existing warehouse area located at Beach Bottom, WV, and at an existing warehouse at the Letterkenny Army Depot in Chambersburg, PA. Contractors will draw material from these Company yards as required during the construction of the project.

Support Sites (Pipe / Contractor Yards and Access Roads)

The contractor pipe yards will be used for equipment, miscellaneous pipe, and material storage, as well as temporary field offices and pipe preparation/field assembly areas during construction. Site selection and acquisition will continue throughout the planning and

permitting stages of the Project. Contractors will be required to site pipe and contractor yards in previously developed areas that will require no new land disturbance.

Support Sites (Access Roads)

To the extent possible, SPLP will use existing public and private roads for temporary construction access to the mainline pipeline Right-of-Ways (ROWs) and aboveground facilities. SPLP has identified all non-public temporary and permanent access roads that are needed to allow safe installation and operation. SPLP will seek and obtain the necessary property rights and approvals from landowners and government agencies prior to the use, improvement, or construction of such roads.

Support Sites (Power Supply)

The modifications at the Delmont Station in Westmoreland County require an upgrade to the existing electric power supply. While the current power supply is sufficient, the reliability to other electric customers would be diminished if additional power supply is not obtained. To support the Delmont modification as well ensuring future electric supply reliability to the area, West Penn Power (West Penn) proposes the Springdale – White Valley 138kV Tap to Sunoco Delmont Transmission Line Project. This Project consists of constructing a new, approximately 2 mile single-circuit 138 kV transmission line between the existing Springdale – White Valley 138kV transmission line and a new metering station to be installed at the Sunoco Delmont facility. The route taps into the existing Springdale – White Valley 138 kV Transmission Line within the existing right-of-way (ROW) approximately 120 feet south of Old William Penn Highway. West Penn Power is applying for National Pollutant Discharge Elimination System (NPDES) permit coverage through the Westmoreland County Conservation District.

Similar to the Delmont Station, the Ebensburg Station in Cambria County requires an upgrade to the existing electric power supply. To support the Ebensburg Station, as well ensuring electric supply reliability to the area, REA Energy will install the Bagley Minor Subdivision substation across Wilmore road from the proposed Station to support this project and others. REA Energy will obtain all necessary authorizations.

Additional power supply activities at the Middletown Station modification are contained within the proposed disturbance limits and is included as part of the overall design.

E. OTHER WATER OBSTRUCTIONS OR ENCROACHMENTS

All water obstruction and stream encroachments that require a permit to construct and operate the proposed Project are described in this Joint Permit Application.