

Attachment C
Project Description and Associated Information
in support of Texas Eastern's
Request for State Water Quality Certification

1. Project Description

Texas Eastern Transmission, LP (Texas Eastern) is seeking authorization to abandon certain facilities and to construct and operate the Appalachia to Market II Project (A2M II Project) and Armagh and Entriaken HP Replacement Projects (Replacement Projects) in Pennsylvania. The A2M II Project and the Replacement Projects are composed of overlapping facilities and therefore are included within a single application for permitting purposes and are referred to collectively as the "Project" throughout this request for a State Water Quality Certification (SWQC). The Project is subject to Sections 7(b) and 7(c) of the Natural Gas Act and Part 157, Subpart A of the Federal Energy Regulatory Commission's (FERC) regulations. Texas Eastern submitted an application for a certificate of public convenience and necessity from the FERC on July 7, 2022.

The Replacement Projects are designed to improve reliability on the Texas Eastern system by replacing a 1950s era gas-driven compressor unit with an electric-motor driven (EMD) compressor unit at each of two compressor stations. The A2M II Project is designed to provide up to 55,000 dekatherms per day (Dth/d) of additional firm natural gas transportation from the Appalachia supply basin in Southwest Pennsylvania to existing local distribution company (LDC) customers in New Jersey (PSEG Power LLC and Elizabethtown Gas). The facilities required for the Project are located primarily within and adjacent to Texas Eastern's existing right-of-way (ROW) and at existing compressor stations owned and operated by Texas Eastern. The Project involves the following system modifications:

- Line 28 Pipeline Loop, located in Lebanon County, Pennsylvania: Install approximately 2 miles of 36-inch diameter looping pipeline generally adjacent and to the south of Texas Eastern's existing Lines 12, 19, and 27 pipelines ("Line 28 Loop") beginning at the terminus of the existing Line 28. At the western terminus of the Line 28 Loop, an existing receiver and valve site will be abandoned and removed ("Removal of Existing Receiver Site"). At the eastern terminus of the Line 28 Loop, a new receiver, valve, and crossover site will be constructed ("Proposed Receiver Site"). New permanent ROW will be required for the Line 28 Loop and the Proposed Receiver Site.
- Armagh Compressor Station Modifications, located in Indiana County, Pennsylvania: Install a 27,000 horsepower (hp) EMD compressor unit, gas coolers, filter separators, source control facilities, and associated buildings and piping at an existing compressor station to replace an existing 22,000 hp General Electric Company (GE) Frame 5 gas-driven turbine compressor unit, which will be abandoned and removed. Additionally, a new electric substation will be constructed to provide power to the new EMD compressor. The proposed Armagh Compressor Station Modifications will occur within the operational footprint of the existing facility site and will increase the station's total horsepower to 27,000 hp, which is an increase of 5,000 hp.
- Entriaken Compressor Station Modifications, located in Huntingdon County, Pennsylvania: Install a 24,000 hp EMD compressor unit, gas coolers, filter separators, and associated buildings and piping at an existing compressor station to replace an existing 22,000 hp GE Frame 5 gas-driven turbine compressor unit, which will be abandoned and removed. Additionally, a new electric substation will be constructed to provide power to the new EMD compressor unit, and a new emergency generator [maximum 1,289 kilowatt (kW)] will replace an existing 620 kW generator. The proposed Entriaken Compressor Station Modifications will occur primarily within the operational footprint of the existing facility site and will increase the station's total horsepower to 24,000 hp, which is an increase of 2,000 hp.

In addition, Texas Eastern proposes to use four existing contractor yards to temporarily store and prepare pipe, equipment, and other materials needed for construction. Texas Eastern anticipates that construction contractors and/or inspection staff may maintain temporary construction office trailers at the yards and will use the yards for parking. None of the yards will be expanded, and no earth disturbance will be required for their use to support Project construction. These contractor yards are:

- Lebanon Yard, an existing, approximately 23-acre gravel commercial yard in North Lebanon Township, Lebanon County;
- Myerstown Yard, an existing, approximately 3-acre gravel parking area in Jackson Township, Lebanon County;
- Mt. Braddock Yard, an existing, approximately 20-acre pipe yard at the end of Ainsley Road in North Union Township, Fayette County; and
- Mundys Corner Yard, an existing, approximately 10-acre pipe yard in Jackson Township, Cambria County.

2. Purpose, Need, and Water Dependence

The purpose of the Project is to provide up to 55,000 Dth/d of additional natural gas transportation capacity to meet the demand for natural gas of two LDCs in New Jersey and to improve system reliability. The Project is needed to meet demand, as reflected in precedent agreements that Texas Eastern entered with PSEG Power, LLC on December 31, 2021 and Elizabethtown Gas on January 24, 2022 pursuant to which Texas Eastern will, subject to certain conditions precedent, develop and construct the Project to provide long-term firm service. The Project is designed to allow Texas Eastern to provide up to 55,000 Dth/d of firm natural gas transportation services from the Appalachian supply basin in Southwest Pennsylvania to delivery points in New Jersey.

The Project is also needed to ensure the continued safe and reliable operation of the Armagh and Entriken Compressor Stations, while reducing air emissions, by replacing natural gas-driven turbine compressor units and associated related facilities that were constructed in the 1950s with new, more efficient EMD compressor units.

The Project location within existing compressor station properties or adjacent to Texas Eastern's existing ROW resulted in the need to cross watercourses and wetlands. Given the preference to collocate the proposed facilities with existing infrastructure, along with the climate and terrain of Pennsylvania that fosters the existence of watercourses and wetlands, avoidance of all watercourse and wetland resources was not possible. The Project is considered to be water dependent because it requires access or proximity to/within water to fulfill the purpose and need described above.

3. Schedule

Texas Eastern anticipates mobilization and construction of the Project to begin January 31, 2024. However, pending receipt of applicable authorizations, Texas Eastern may accelerate this construction schedule. The construction schedule is based on the need to meet an in-service date of November 1, 2025.

4. Overview of Environmental Impacts Relevant to the 401 Water Quality Certificate

4.1 Wetlands and Waterbodies

A summary of wetlands and waterbodies impacted by the Project are found in Attachment H of this permit application. An overview of potential discharges to waters of the Commonwealth and associated mitigation is provided in Attachment G. Finally, the wetland and waterbody delineation reports are provided in Attachment I of this permit application.

4.2 Private or Public Water Supplies

The Project is not located within or adjacent to any sources of public water supplies. A review of the Pennsylvania Department of Conservation Resources (PADCNR) Pennsylvania Groundwater Information System (PaGWIS) (PADCNR 2022a) and field surveys identified domestic wells and springs, as listed in Table 4-1, within 150 feet of the Project workspaces. Texas Eastern will offer pre- and post-construction well monitoring assessing both water quality and yield to the well owner(s) for locations where the Project will be constructed. Well monitoring is not proposed related to wells in the vicinity of the contractor yards.

Table 4-1 Water Supply Wells and Springs Within 150 Feet of Project Construction Areas

Facility	County, State	Approximate Milepost	Water Supply Type	Distance and Direction
Pipeline <u>a/</u>				
Line 28 Loop	Lebanon, PA	3.8	Domestic Well	40 feet north of workspace
Line 28 Loop	Lebanon, PA	3.8	Domestic Well	150 feet north of workspace
Line 28 Loop	Lebanon, PA	3.9	Spring House	81 feet southeast of workspace
Line 28 Loop	Lebanon, PA	4.5	Domestic Well	10 feet south of workspace
Line 28 Loop	Lebanon, PA	4.6	Domestic Well	74 feet south of pipeline inside workspace
Line 28 Loop	Lebanon, PA	5.3	Domestic Well	135 feet north of workspace
Line 28 Loop	Lebanon, PA	5.3	Domestic Well	88 feet south of workspace
Line 28 Loop	Lebanon, PA	5.4	Domestic Well	71 feet south of workspace
Aboveground Facilities				
Proposed Receiver Site	Lebanon, PA	5.7	Domestic Well	107 feet south of workspace

Facility	County, State	Approximate Milepost	Water Supply Type	Distance and Direction
Armagh Compressor Station Modifications	Indiana, PA	N/A	N/A	N/A
Entrioken Compressor Station Modifications	Huntingdon, PA	N/A	Domestic Well	Within workspace
Contractor Yards				
Lebanon Yard	Lebanon, PA	N/A	N/A	N/A
Myerstown Yard	Lebanon, PA	N/A	Domestic Well	150 feet southeast of workspace
Myerstown Yard	Lebanon, PA	N/A	Domestic Well	150 feet southeast of workspace
Mt Braddock Yard	Fayette, PA	N/A	N/A	N/A
Mundys Corner Yard	Cambria, PA	N/A	N/A	N/A

a/ Wells identified near the Removal of Existing Receiver Site are included with the Line 28 Loop due to overlapping workspace.

4.3 Public or Conservation Lands

4.3.1 Public Or Conservation Lands – Existing Conditions

The proposed Project is not located within 0.25 mile of Native American Reservations, National Wildlife Refuges, National Forests, or National Wilderness Areas (U.S. Fish and Wildlife Service [USFWS] 2022; United States Forest Service [USFS] 2022). Additionally, there are no National Parks (National Park Service [NPS] 2022a) or National Historic Landmarks (NPS 2022b) located within 0.25 mile of the Project. There are no National or State Wild and Scenic Rivers crossed by, or located within 0.25 mile of, the Project (NPS 2022c). The Project is not located within, adjacent to, or within 100 feet of federal public, scenic or conservation lands.

There are no state public or conservation lands in the vicinity of the Line 28 Loop and associated Removal of Existing Receiver Site and Proposed Receiver Site, in the vicinity of the Armagh Compressor Station Modifications, or in the vicinity of any of the proposed contractor yards. Rothrock State Forest is located adjacent to the Entrioken Compressor Station Modifications; the State Forest is located directly east and north of the property boundaries of the existing compressor station. Rothrock State Forest is composed of 96,975 acres and is managed by the PADCNR Bureau of Forestry (PADCNR 2022b).

There are no federal or state conserved land properties crossed by the Project; there are no conservation easements or farm easements crossed or within 0.25 mile of the Project. The Lebanon County Conservation District (LCCD) works with local farmers, the Lebanon County Commissioners, and Pennsylvania Department of Agriculture’s Bureau of Farmland Preservation, with the aim of farmland preservation in the County. Through the Agricultural Land Preservation Program, landowners voluntarily participate in the program by selling or donating agricultural conservation easements. The Line 28 Loop, including the parcel containing the Proposed Receiver Site, crosses four parcels that are enrolled as Agricultural Security Areas (ASA) based on LCCD mapping.

4.3.2 Public Or Conservation Lands – Impacts and Mitigation

No public, recreational, or scenic lands are directly crossed by the Project. The Line 28 Loop, including the Removal of Existing Receiver Site and Proposed Receiver Site, is proposed within or adjacent to Texas

Eastern's existing ROW. Activities at the Armagh Compressor Station Modifications and the Entriiken Compressor Station Modifications are proposed within existing Texas Eastern property and primarily within the existing fence lines of each compressor station. This siting minimizes potential impacts to the public lands near the Entriiken Compressor Station; there are no public lands in the vicinity of the Line 28 Loop or the Armagh Compressor Station Modifications.

The Line 28 Loop, including the Proposed Receiver Site, cross parcels that are enrolled as ASAs. Active croplands temporarily disturbed by the proposed activities for the Line 28 Loop are expected to return to their original conditions following installation completion. Prior to grading or trenching, the topsoil from these areas would be stripped and segregated from the trench spoil. This segregated soil would be returned to the ditch following backfilling of the trench spoil, preserving topsoil within the agricultural areas. The installation of the Proposed Receiver Site will convert agricultural land that is within the ASA to an industrial use. However, the ASA designation allows for 10 percent of a parcel to be removed from an agricultural production. Since the size of the Proposed Receiver Site comprises less than 10 percent of the parcel, the installation of the Proposed Receiver Site will not hinder the overall ASA. Section 913 of the Agricultural Area Security Law specifies that the condemnation process that would normally be required for land within an ASA to be converted to a non-agricultural use would not apply to a project that has been ratified or approved by the Pennsylvania Public Utility Commission or the FERC.

4.4 Prime Farmland

4.4.1 Prime Farmland – Existing Conditions

The Line 28 Loop (including the Removal of Existing Receiver Site and Proposed Receiver Site) and the Armagh Compressor Station Modifications cross soils that are designated as Prime Farmland. Along the Line 28 Loop and the Proposed Receiver Site, agricultural land includes active crop land or hay fields, which are dominated by cultivated crops such as corn, soybean, or pasture area. No specialty crops were observed within the Project construction workspace. No agricultural lands are impacted by the Armagh Compressor Station Modifications or the Entriiken Compressor Station Modifications.

4.4.2 Prime Farmland – Impacts and Mitigation

To the extent practicable, landowner access to fields and other agricultural facilities will be maintained during construction of the Line 28 Loop. During pipeline construction in actively cultivated or rotated agricultural lands, hayfields and managed pasture lands, topsoil will be stripped and stockpiled separately from the subsoil during grading. Equipment traffic will be strictly controlled within agricultural areas to minimize rutting and compaction. The entire topsoil layer will be segregated. Once the trench is backfilled, the topsoil will be returned as the final surficial layer in the trench, tested for compaction, and remediated to reduce bulk density and remove any excess rock as necessary. The location of drain tiles will be identified prior to construction. Any drain tiles damaged during construction will be repaired or replaced by Texas Eastern's construction contractor. All drainage systems will remain operational during construction. Landowners will be compensated for losses of production and field damages, in accordance with individual landowner agreements.

Following construction, routine pipeline operation and maintenance activities will not hinder agricultural activities within the ROW. Therefore, impacts to agricultural areas along the pipeline route will be limited to the construction period and the time required for vegetative regrowth after construction is completed. Installation of the Proposed Receiver Site will convert agricultural land to an industrial/commercial use. Texas Eastern will compensate the landowner for use of this property.

Although the Armagh Compressor Station Modifications cross soils that are designated as Prime Farmland, the Project will occur within the operational footprint of the existing facility site, which is not in agricultural use.

4.5 Threatened and Endangered Species

4.5.1 Threatened and Endangered Species – Existing Conditions

Texas Eastern reviewed the Project using the Pennsylvania Natural Diversity Inventory (PNDI) online review tool, which includes responses from the Pennsylvania Game Commission (PGC), PADCNR, Pennsylvania Fish and Boat Commission (PFBC), and USFWS regarding protected species and habitats under their jurisdictions. The PNDI receipts for the Armagh Compressor Station Modifications, Entriken Compressor Station Modifications, Mt. Braddock Yard, and Mundys Corner Yard indicated that there were no known species conflicts for these facilities (Attachment F of this permit application provides a copy of the PNDI receipts).

The USFWS response for the Project facilities Line 28 Loop, Removal of Existing Receiver Site, Proposed Receiver Site, Lebanon Yard, and Myerstown Yard are all located within known range of the bog turtle, which is a federally threatened species. The PNDI response from USFWS for Lebanon County facilities (PNDI-756253) requested that a recognized, qualified bog turtle surveyor conduct Phase 1 habitat assessment surveys on all aquatic resources within 300 feet of the Project footprint to determine whether any are suitable for bog turtles.

Suitable habitat for the federally endangered bog turtle was identified by a Phase 1 habitat assessment within 300 feet of the Line 28 Loop, Removal of Existing Receiver Site, and the Lebanon Yard. Phase 2 surveys completed at the Line 28 Loop and Removal of Existing Receiver Site failed to find any bog turtles, and probable absence was determined. No Phase 2 surveys were conducted at a wetland complex south of the Lebanon Yard, because the Lebanon Yard will not include any new earth disturbance and will be utilized in its existing condition as a graveled lot with surrounding chain link fence for the purpose of staging and storage of equipment and materials.

4.5.2 Threatened and Endangered Species – Impacts and Mitigation

Phase 1 results were communicated to the USFWS in a letter dated May 12, 2022, and a combined Phase 1 and Phase 2 bog turtle survey report was provided to the USFWS Pennsylvania field office on June 23, 2022 (included within Attachment F). Based on the results of Phase 1 and Phase 2 Surveys and the type of work proposed, Texas Eastern concludes that the Project may affect, but is not likely to adversely affect, the bog turtle. Therefore, no mitigation for threatened and endangered species is proposed at this time. Texas Eastern continues to coordinate with the USFWS regarding the negative bog turtle survey results from recent surveys and Project activities.

5. Alternatives and Siting

As discussed below, Texas Eastern evaluated alternatives to avoid and minimize environmental impacts to the proposed Project. Texas Eastern did not evaluate route deviations to the proposed Line 28 Loop or alternative site locations for the Armagh and Entriken Compressor Station Modifications. Workspace directly abuts Texas Eastern's existing ROW and compressor station facilities, thereby minimizing overall impacts associated with expanding the system. Three alternative sites were evaluated for the Proposed Receiver Site, and the proposed location avoids impacts to wetland, watercourses, and floodways and is acceptable to the affected landowner. Workspace to construct and operate all proposed facilities has been refined to avoid and minimize impacts to environmentally sensitive resources and landowners to the extent practicable.

5.1.1 No-Action Alternative

The no-action alternative would avoid the temporary environmental impacts that would be associated with the construction of the Project. However, by not constructing the Project, Texas Eastern would not be able to transport the necessary natural gas needed to meet the market energy need, which has grown as a result of the incremental-load growth PSEG Power, LLC and Elizabethtown Gas are experiencing, and would not provide

other benefits of additional capacity, including to meet growing customer demand, decrease the possibility of natural gas supply interruption, reduce price fluctuations, and provide additional liquidity to the local natural gas market. Furthermore, the no-action alternative would not result in Texas Eastern's abandonment of older, less efficient gas-driven turbine compressor units at Armagh and Entriiken Compressor Stations and their replacement with EMD compressors.

Given these factors, the no-action alternative is not considered a viable alternative to the proposed action because it would not accomplish the Project's purpose and need to provide additional natural gas transportation capacity and increase system reliability. If the natural gas transportation requirements are not met through the Project, other new gas supply projects will be required to meet this existing demand. Other projects would involve potentially greater impacts given that the proposed Project's facilities are located primarily within existing Texas Eastern ROW, requiring only minimal expansion of the permanent easement.

5.1.2 Alternative Routes or Sites

Four pipeline loop alternatives to the Preferred Alternative were considered. These alternatives provide the same hydraulic result as the proposed Project, and the proposed horsepower increase at the Armagh and Entriiken Compressor Stations would be the same for each of the pipeline loop alternatives considered. However, the Preferred Alternative requires the shortest amount of pipeline, impacts the fewest landowners, requires only one section of new pipe, and based on a desktop review the route was found to have the least impacts to environmental resources.

Texas Eastern did not evaluate any route deviations of the Preferred Alternative. The Line 28 Loop is fully co-located with Texas Eastern's existing ROW, thereby minimizing impacts to affected landowners and crossing wetlands and watercourses in previously disturbed areas. Wetlands and watercourse impacts could not be avoided due to the linear nature of a pipeline and the linear nature of watercourses and abutting wetlands. Three wetlands and two watercourses will be crossed by the Line 28 Loop, as these features are perpendicular to the Project.

Texas Eastern evaluated three potential locations for the Proposed Receiver Site, all within 0.25 mile of one another along the proposed Line 28 Loop. No wetlands, waterbodies, or regulated floodways were identified at the preferred location for the Proposed Receiver Site.

6. Cumulative Impacts

Cumulative impacts may result when impacts from the construction and operation of the Project are combined with the impacts from other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes those actions. Although the individual impact of each separate project may be minor, the additive or synergistic effects of multiple projects may be significant.

6.1.1 Assessment for Potential Cumulative Impacts

The assessment area for potential cumulative effects includes the area directly affected by construction of the Project and other projects within the geographic scope. For this SWQC request, the geographic scope has been defined as the hydrologic unit code (HUC-12) watersheds impacted by the Project; watershed boundaries are defined boundaries of surface water flow within which cumulative impacts can be assessed. The cumulative impact analysis has been limited to those Project components requiring earth disturbance, as those without disturbance would not have the potential to impact water quality and use (i.e., the contractor yards are not included).

An action must meet the following three criteria to be included in the cumulative impacts analysis:

- Impact a resource area potentially affected by the proposed Project – for this SWQC application those resources are limited to water quality and use, including groundwater, surface water, and wetlands;

- Cause this impact within the geographic scope of areas affected by the proposed Project areas – for this SWQC application the scope is each HUC-12 watershed; and
- Cause this impact within all, or part of, the time span for the potential impact from the proposed Project.

The cumulative impacts analysis summarized below was conducted to identify and describe the potential effects attributable to the proposed Project at each location (i.e., the Line 28 Loop, Armagh Compressor Station Modifications, and Entriiken Compressor Station Modifications). The potential for cumulative impacts due to the Removal of the Existing Receiver Site and the Proposed Receiver Site are included within the “Line 28 Loop” discussions.

To identify proposed development in proximity to each facility, Texas Eastern reviewed online resources to identify past, present, or reasonably foreseeable future actions that may have impacts on the same affected environments (HUC-12) and within the same temporal scope as the Project. Actions potentially contributing to cumulative impacts to aquatic resources with the Project are summarized in Table 6-1. A discussion for the potential for cumulative impacts to aquatic resources is provided following the table.

Table 6-1 Projects Potentially Contributing to Cumulative Impacts to Water Resources with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects

Project Name	Project Developer	Project Type	Project Overview	Nearest Distance to Project & Direction	Temporal Overlap?	Potential for Overlapping Impacts on Identified Resources with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects
Line 28 Loop, Lebanon County						
13.8 kV Transmission Line to support the Proposed Receiver Site	Met-Ed	Electric Transmission	This project consists of a new or upgraded electrical transmission line to support the Proposed Receiver Site. An estimated fourteen new power poles may need to be installed along a 0.3-mile route to transmit electricity to a new transformer. Texas Eastern will install any required power pole(s) inside the fence of the Proposed Receiver Site to accept the power lines coming from Met-Ed.	0.0 miles (adjacent to the Proposed Receiver Site) south	Yes; Texas Eastern anticipates that Met-Ed will construct the electric transmission line concurrently with its construction of the Line 28 Loop and the Proposed Receiver Site.	Construction of this transmission line is anticipated to occur concurrently with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects. Although Met-Ed will be responsible for the final routing, it is assumed the transmission line will follow East Rosebud Road from its intersection with Kutztown Road to the Proposed Receiver Site. It is also assumed that any new utility poles would avoid impacts to regulated features (such as wetlands or waterbodies) or would obtain permit(s) if avoidance is not possible. As more fully described below, this transmission line project may have overlapping impacts with the Project. However, these impacts are not expected to result in significant, negative cumulative impacts.
Allentown Blvd over Beach Run Bridge Replacement (Source: PennDOT 2022)	PennDOT	Transportation	This project consists of a bridge replacement on US Route 22 (Allentown Boulevard) over Beach Run in Bethel Township, Lebanon County.	4.5 miles north-northwest	No; this project is under construction with an anticipated completion date of December 2023.	This bridge replacement project will likely be complete prior to the construction phase of the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects. Once complete, the bridge replacement would not have ongoing impacts to aquatic resources. Therefore, it is unlikely this project will have overlapping impacts with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects on these resources.
Armagh Compressor Station Modifications, Indiana County						
115 kV Electric Transmission Line to Armagh Compressor Station Modification	Penelec – FirstEnergy Corp.	Electric Transmission	This project consists of a new 0.4-mile 115 kV electric line to supply power to the new electric substation that will be installed as part of the Armagh Compressor Station Modifications	0.0 mile (overlaps with construction workspace)	Yes; Texas Eastern anticipates that Penelec will construct the electric transmission line concurrently with the Armagh Compressor Station Modifications	Construction of this 0.4-mile 115 kV transmission line is anticipated to occur concurrently with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects. Although Penelec will be responsible for the final routing, it is assumed the any new utility poles would avoid impacts to regulated features (such as wetlands or waterbodies) or would obtain permit(s) if avoidance is not possible. As more fully described below, this transmission line project may have overlapping impacts with the Project. However, these impacts are not expected to result in significant, negative cumulative impacts.
Blairsville Family Housing 2 (Source: Construction Journal 2022)	Trek	Residential Housing Development	New construction of 30 new multi-family units (15 buildings) in Blairsville Township, Indiana County.	9 miles west	No; construction anticipated to begin third quarter 2022, and completion expected third quarter 2023.	This housing development will likely be complete prior to the construction phase of the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects. Once complete, the housing project would not have ongoing impacts to aquatic resources. Although the housing development is located within the same HUC-12 watershed, it is nine miles distant from the Armagh Compressor Station Modifications, which will not impact wetlands or waterbodies. Therefore, it is unlikely this project will have overlapping impacts with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects on these resources.
Entriaken Compressor Station Modifications, Huntingdon County						
115 kV Electric Transmission Line to Entriaken Compressor Station Modification	Penelec – FirstEnergy Corp.	Electric Transmission	This project consists of a new 8.4-mile 115 kV electric line to the new electric substation to be installed as part of the Entriaken Compressor Station Modifications.	0.0 mile (overlaps with construction workspace)	Yes; Texas Eastern anticipates that Penelec will construct the electric transmission line concurrently with the Entriaken Compressor Station Modifications	Construction of this 8.4-mile 115 kV transmission line is anticipated to occur concurrently with the Appalachia to Market II and Armagh and Entriaken HP Replacement Projects. Although Penelec will be responsible for the final routing, it is assumed the any new utility poles would avoid impacts to regulated features or would obtain permit(s) if avoidance is not possible. As more fully described in Section 1.16.2, below, this transmission line project may have overlapping impacts with socioeconomics, wetlands, vegetation and wildlife, land use and visual resources, noise, air quality – construction, and historic architecture, archeology, geology, and soils. However, these impacts are not expected to result in significant, negative cumulative impacts.

6.1.2 Cumulative Impacts to Surface Water, Groundwater, Wetlands, Vegetation and Wildlife (HUC-12 Watershed Boundary)

Texas Eastern has designed workspaces and sited aboveground facilities to avoid and minimize impacts to wetlands and waterbodies to the greatest extent practicable, while utilizing the available workspace within the existing stations and placing the Line 28 Loop adjacent to Texas Eastern's existing easement. Potential impacts and mitigation to aquatic resources due to the Appalachia to Market II and Armagh and Entriiken HP Replacement Projects is provided in Attachment G of this permit application.

Surface Water and Wetlands

While temporary impacts to surface water and wetlands could not be completely avoided to construct the Line 28 Loop and the Entriiken Station Modifications, these impacts will be temporary and occur during the construction phase only. To mitigate impacts to surface water and wetlands, Texas Eastern proposes to implement its Erosion and Sediment Control Plan (E&SCP), which contains best management practices (BMPs) designed to avoid, reduce and/or mitigate potential impacts to surface waters and wetlands (the Enbridge E&SCP is provided as Attachment G.1). Texas Eastern will also comply with any permit conditions the US Army Corps of Engineers or the Pennsylvania Department of Environmental Protection requires in permits that Texas Eastern will obtain for the Project. It is possible that any of the projects identified in Table 6-1 could temporarily impact water resources and/or wetlands. Construction of each of the proposed projects would likely require the use of a project-specific E&SCP with BMPs designed to avoid, reduce and/or mitigate potential impacts to these features. Impacts to surface water resources and wetlands due to the Project will be temporary and geographically limited; therefore, cumulative impacts to surface water and wetlands are not anticipated due to the Appalachia to Market II and Armagh and Entriiken HP Replacement Projects combined with the other identified projects.

Groundwater

Construction activities associated with the Project that have the potential to impact groundwater include shallow excavations, hydrostatic test discharges, and potential spills or leaks of hazardous liquids from the refueling of construction vehicles or storage of fuel, oil, and other fluids. Short-term and localized impacts on groundwater could potentially occur during various construction stages, particularly during clearing, grading, and trench excavation. During construction, local water table elevations could be temporarily affected by trenching and backfilling. In locations where groundwater is near the surface, trench excavation may intersect the water table in low-lying areas. Each of these possible impacts would be short-term and temporary. Long-term impacts on groundwater resources are not anticipated as a result of the Project at any of the locations.

To avoid and minimize impacts to groundwater, Texas Eastern will prohibit the refueling and storage of hazardous materials within 200 feet of known private wells. Potential spills or leaks of hazardous liquids resulting from refueling construction vehicles or storing fuel, oil, and other fluids during construction could contaminate groundwater. The *Spill Prevention, Control and Countermeasure Plan and Preparedness, Prevention, and Contingency Plan for Construction Projects* addresses preventative measures to be used to minimize the potential impacts of a hazardous material spill on groundwater resources (the SPCC and PPC Plan is provided in Attachment G.2).

The other projects listed in Table 6-1 would be required to meet the conditions of their project-specific permits to avoid and minimize impacts to groundwater in their respective project areas. Given that the proposed Appalachia to Market II and Armagh and Entriiken HP Replacement Projects have been designed to avoid permanent impacts to groundwater, combined with the other projects listed in Table 6-1, which would be required to comply with their individual permit conditions, cumulative impacts on groundwater are expected to be temporary and minor.

Fish, Wildlife, Threatened and Endangered Species, and Vegetation

The Project will not directly impact fish or threatened and endangered species. Therefore, the proposed Project will not contribute to cumulative impacts on these resources potentially caused by the other projects. The majority of the Line 28 Loop's surface impacts will be located within or adjacent to currently maintained ROW,

although tree removal will be required in limited locations. Disturbance that will occur outside of the currently maintained ROW will be primarily located on agricultural land, which supports limited wildlife. Although both the Armagh Compressor Station Modifications and Entriiken Compressor Station Modifications will occur within Texas Eastern's existing property on land that is currently used for industrial purposes, tree removal will be required to support construction activities at both locations. Temporary impacts to local wildlife may occur as a result of Project-related tree removal.

Although construction related activities associated with the Project will result in the removal of vegetation and associated wildlife habitats and potential displacement of wildlife, these activities will be limited to the designated construction workspace. Vegetative cover and forage habitats are abundant in the areas surrounding both of the compressor station sites, which will minimize the overall impact to wildlife. While short-term impacts to wildlife habitat may occur during construction of the Line 28 Loop, these wildlife habitats will be substantially restored to pre-construction conditions, and any resulting impacts to wildlife are expected to be short-term and minor.

Impacts to vegetation and wildlife are anticipated to be localized for the other projects that were identified in the same HUC-12 as the Line 28 Loop, the Armagh Compressor Station Modifications, and the Entriiken Compressor Station Modifications. Therefore, cumulative impacts on vegetation and wildlife are expected to be minor.

In summary, Texas Eastern reviewed past, present, and reasonably foreseeable actions that, when taken into consideration with the Project, could result in cumulative impacts to water quality and use. Reasonably foreseeable actions identified are subject to permit requirements like that of the Project, which will help to minimize and/or mitigate impacts. Texas Eastern is continuing to develop Project-specific construction and compliance plans and will implement BMPs and impact minimization and mitigation measures to minimize environmental impacts for the Project. The Project is not expected to result in significant cumulative impacts.

7. References

- Construction Journal. 2022. Blairsville Family Housing 2 project. Available at: <https://www2.constructionjournal.com/main/search?view=project&projid=2308706&psid=>. Accessed April 2022.
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