

HOPEWELL GREEN ACRES 1-1

ALTERNATIVE ROUTE COMPARISON TO PROPOSED ROUTE

Table Appendix B-26 Evaluation and Comparison of the Proposed Route to the Hopewell Green Acres 1-1 Alternative Route (MP 108.5R2 – MP 109.7R2)		
Proposed Route	Alternative Route	Evaluation/Comparison
General Information		
Length: 1.25 miles	Length: 1.52 miles	The Alternative Route is 0.27 miles longer and has a greater construction cost by a factor of 1.3. The Alternative Route construction duration is greater by a factor of 3.0. The Proposed Route is 100% collocated.
Collocated Length: 1.25 miles (u)	Collocated Length: 0.65 miles (r)	
Construction Cost: \$13,027,310	Construction Cost: \$17,568,175	
Construction Duration: 0.5 months	Construction Duration: 1.5 months	
Regulated Resource Impact: Wetlands		
Wetland Areas Crossed: 4	Wetland Areas Crossed: 4	The Proposed Route has greater impacts on wetlands.
Crossing Method: 3 trenchless (bore) 1 open-cut	Crossing Method: 4 open-cut	
Impact: PFO Impact = 0.22 acres PSS Impact = 0.06 acres PEM Impact = 0.07 acres MODAG Impact = 0.45 acres	Impact: PFO Estimated Impact = 0.15 acres PEM Estimated Impacts = < 0.01 acres MODAG Est. Impact = 0.56 acres	
Regulated Resource Impact: Waterbodies		
Waterbodies Crossed: 6	Waterbodies Crossed: 2	Due to the implementation of trenchless technology construction (bores) along the Proposed Route, the Alternative Route has greater impact to waterbodies.
Classification: 1 Jacobs Creek (FW2-NTC1) 5 Jacobs Creek UNTs (FW2-NTC1)	Classification: 1 Jacobs Creek UNT (FW2-NTC1) 1 Jacobs Creek (FW2-NTC1)	
Crossing Method: 5 (FW2-NTC1) trenchless (bore) 1 (FW2-NTC1) access road (culverted)	Crossing Method: 2 (FW2-NTC1) dry crossings	
Regulated Resource Impact: T&E Species		
Habitat Mapping: Bald eagle (foraging) Brown Thrasher (breeding)	Habitat Mapping: Bald eagle (foraging) Brown Thrasher (breeding)	No observed difference in anticipated impacts.
Regulated Resource Impact: Cultural Resources ^{1,2}		
Architectural Properties: None	Architectural Properties: None	No observed difference in anticipated impacts.
Archaeological Sites: None	Archaeological Sites: None	
Logistics: Traffic Impact		
None	Pipeline construction within Pennington Titusville Road will require the complete closure of the roadway. During the road closure, a detour would be required, as detailed in the Traffic Analysis provided in Appendix C.	Implementation of the Alternative Route roadway closure and detour would significantly increase project related traffic impacts during construction. The closure and detours would have adverse impacts as detailed in Appendix C.
Logistics: Proximity to Structures and Residences ³		
There is one barn/garage structure in close proximity to the Proposed Route workspace.	There is one residence and one barn/garage structure in close proximity to the Alternative Route workspace.	No observed difference in anticipated impacts.
Logistics: Emergency Services Impact		

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Proposed Route	Alternative Route	Evaluation/Comparison
None	During pipeline construction within the roadway, emergency services would need to use detour routes. These detours would impact emergency service response times on a localized basis.	Full or partial road closures associated with construction of the Alternative Route would adversely impact response times for emergency services on a localized basis.
Logistics: Impact to Places of Public Assembly		
None	None	No observed difference in anticipated impacts.
Logistics: Constructability		
None	The construction of the pipeline would require the temporary or permanent relocation of many utility poles and associated utility lines along Pennington Titusville Road. Roadside guiderails and creek crossing stone abutments would have to be removed and re-installed along portions of this Alternative Route. Mature trees on the side of the roadway would require trimming and/or removal. Plating of open trenches in the road would be required to allow access to private residences. Additionally, there may be times where residents are not able to access their properties from the roads for a period lasting one to three days.	The Alternative Route has significantly more Constructability issues.
Conclusion		
<p>The Proposed Route is 100% collocated. The Hopewell Green Acres 1-1 Alternative Route merely substitutes similar environmental consequences for those attendant on the Proposed Route. After taking into consideration its logistical limitations including anticipated community impacts and constructability, the Hopewell Green Acres 1-1 Alternative Route is dismissed as impracticable.</p> <p>PennEast strives to minimize locating the pipeline in areas prone to any amount of an increased operational risk as much as practicable. Implementing the alternative routes within the roadway would substantially increase the linear footage of the project within areas at an elevated operational risk for third-party damage. The probability of third-party excavator accidents, a major cause of natural gas transmission pipeline incidents over the past 20 years, is higher with pipelines located within roadways due to the higher frequency of excavation activities that increase the probability of accidental striking of the pipeline, such as the installation and maintenance of other subsurface infrastructure (e.g. water lines, fiber optic cables, sewers, etc.), building construction activities, and roadway resurfacing.</p>		
Legend: N/A – Not Applicable r – road		rr – railroad u – utility UNT – Unnamed Tributary
Notes: 1 Unless otherwise noted, includes only those resources listed on or determined eligible for listing on the National Register of Historic Places (NRHP). Sources: "Historic Districts of New Jersey" and "Historic Properties of New Jersey" datasets, 28 January 2019, available at http://njogis-newjersey.opendata.arcgis.com/datasets?q=historic ; and/or recorded by AECOM on behalf of PennEast Pipeline Company, LLC, as of June 2019. 2 Includes NRHP-eligible and/or listed archaeological sites as well as those that have not been evaluated for NRHP eligibility. Source: archaeological site locations on file at the New Jersey State Museum as of 12 March 2019; and/or recorded by AECOM on behalf of PennEast Pipeline Company, LLC, as of June 2019. 3. Close Proximity - In terms of structures and residences is defined as within 50 feet of the workspace		