

Staleen WTP to Duleek Trunk Main - Study Area 2 Iteration 2

Qualitative Rating System	
Green	Preferred
Amber	Potential Constraints
No colour	No disparity between the sites in relation to that particular criteria i.e. it is not preferred or does not have potential constraints

Amber	10	7	1
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Ref	Planning Criteria	Pipe Route 2B	Pipe Route 2C	Pipe Route 2D
1.0	Land Use			
	The route of the pipeline will be selected with regard to current land uses. The assessment considers compatibility with existing and future uses.			
1.1	Number of landowners affected	It is determined that 12 No. folios (MH78375F, MH42336F, MH20600F, MH8976, MH18533F, MH46768F, MH8689, MH8982, MH25505F, MH18684F, MH17353, and MH32334F) will be affected by the route based on an initial review of the Landdirect Mapping.	It is determined that 2 No. folios (MH66624F and MH66036F) will be affected by the route based on an initial review of the Landdirect Mapping.	It is determined that 5 No. folios (MH1021F, MH10231F, MH7243, MH11594, and MH24936) will be affected by the route based on an initial review of the Landdirect Mapping.
1.2	Potential constraints concerning operational and maintenance access to the pipeline	Low/Medium Approximately 70% of this route option is routed through private lands, and the rest along L1602 and L1004. Pipeline wayleaves are required on private lands. Access to the first section of land will be form the local road to the east. Further south and for the majority of the route access will be via field access points on the R152. A right of way is required to reach the pipeline. The section of the pipeline along public roads will require traffic management for operation and maintenance.	Medium Approximately 97% of this route option is routed along L1610. Access for O&M activities will involve temporary traffic management and safety measures. Dependent on the final location of the pipeline it may be possible to maintain one lane of traffic during O&M activities.	Low/Medium Approximately 94% of this route option is routed through private lands, and the rest along L1610. Pipeline wayleaves are required on private lands. Access to the land will be form the R150, L1610 or L16101. A right of way is required to reach the pipeline. The section of the pipeline along public roads will require traffic management for operation and maintenance.
1.3	Temporary severance of lands (affecting access to residential or commercial properties)	Low No significant severences	Low No significant severences	Low No significant severences
1.4	Impact on amenity areas	Low Pipeline route does not affect amenity areas	Low Pipeline route does not affect amenity areas	Low Pipeline route does not affect amenity areas
2.0	Planning Policy			
	The route of the pipeline will be selected having regard to the planning policies and objectives, as specified in the relevant County Development Plan. The assessment considers compatibility with current planning policy.			
2.1	Uisce Éireann strategic programme risk	Low/Medium A section of the route is along L1602 and L1004. Road closure will be required during pipeline construction. Route will involve a CPO process due to the number of landowners and would delay the programme. However all routes will require CPO.	Low/Medium This route option is routed along a local road that will require full closure during pipeline construction. Construction will take longer than in fields. There is also a risk of the road authority requiring work in certain periods of the year. This route also passes a school with potential programme constraints causing delays.	Low Route will involve a CPO process due to the number of landowners and would delay the programme. However all routes will require CPO.
2.2	Meath Co. Co. development plan local objectives and policies	Low The route is outside of the development plan area boundaries.	Low The route is outside of the development plan area boundaries.	Low The route is outside of the development plan area boundaries.

Ref	Technical Criteria	Pipe Route 2E	Pipe Route 2F	Pipe Route 2G
3.0	Engineering and Design Constraints			
	The route of the pipeline will be selected having regard to engineering opportunities and constraints with particular emphasis on topography and ground conditions. The assessment examines key engineering aspects associated with each option which have a significant impact on design and deliverability.			
3.1	Length and route of pipeline	Length of pipeline is approx. 4.00km.	Length of pipeline is approx. 2.78km.	Length of pipeline is approx. 2.83km.
3.2	Complexity of construction of pipeline route	Medium Most of the pipeline corridor is within unconstrained field corridor. Approximately 0.95km is along L1004 and 0.26km is along L1602. The L1004 is 6 to 7 m wide and constrained by the existing Staleen WTP to Windmill Hill trunkmain and an existing distribution water main. There are two streams and one river crossing that might require the use of trenchless technology.	Medium Circa 97% of the pipeline route is along L1610. The road is relatively narrow (5m) and there is a water trunk, distribution main, and telecom cables. There is one stream crossing that might require the use of trenchless technology. There is also a school along the route, which might limit the pipeline construction outside the school terms.	Low The pipeline route is within pipeline corridors within fields. There are 2 streams crossing that might require the use of trenchless technology.
3.3	Diversion of utilities within pipeline route	Low/Medium Approximately 0.9km is routed along L1004. There are two existing watermain along L1004. There is a risk that utility diversion might be required.	Medium Approximately 2.7 km is routed along L1610. There are two existing watermain along L1610. There is a risk that utility diversion might be required.	Low Pipeline is route through private fields. No diversions would be expected.
3.4	Potential physical constraints concerning construction of pipeline	Low No significant physical constraints separate to those covered in other criteria (roads, services, rivers etc)	Low No significant physical constraints separate to those covered in other criteria (roads, services, rivers etc)	Low No significant physical constraints separate to those covered in other criteria (roads, services, rivers etc)
3.5	Hydraulic and Water Quality Impacts	Low The ground elevation of this route allows for water transmission by gravity.	Low The ground elevation of this route allows for water transmission by gravity.	Low The ground elevation of this route allows for water transmission by gravity.
4.0	Capital and Operational Costs			
	The route of the pipeline will be selected having regard to both capital and operational costs.			
4.1	Estimated Capital Cost of the pipeline	Approx. Capital Cost €4.01 M	Approx. Capital Cost €2.57 M	Approx. Capital Cost €2.76M
5.0	Safety			
	The route of the pipeline will be selected with regard to construction and operation phase safety issues. The assessment will examine safety risks associated with each option.			
5.1	Construction Safety Risk associated with construction of pipeline	Low/Medium - Traffic management risks since 30% routed along roads. - Crossing 2 streams. - Crossing 1 HV and 2 MH power lines.	Medium - Traffic management risks since 97% routed along roads - Crossing 1 stream - Crossing 1 HV and 1 MH power lines.	Low - Crossing 2 streams. - Crossing 3 MV power lines.
6.0	Traffic			
	The route of the pipeline will be selected to avoid significant traffic impacts during the construction and operational phases of the development.			
6.1	Traffic Management	Low/Medium Approximately 30% of the route is along L1004. Road closures and traffic management is needed.	Medium Approximately 97% of the route is along L1610. Road closures and traffic management is needed.	Low Almost all of the route is in fields. A small section is routed along L1610. Traffic management will be needed only for this crossing.

Ref	Environmental Criteria	Pipe Route 2D	Pipe Route 2E	Pipe Route 2F
7.0	Ecology			
	The route of the pipeline will be selected to avoid significant direct and indirect impacts on designated nature conservation areas and sites with potential to harbour protected habitats and species. The assessment examines the potential impacts to each of the sub criteria from each of the alternatives.			
7.1	Does the route overlap any European Designated Sites (SPAs, SACs)	No	No	No
7.2	Designated Sites immediately adjacent or in the vicinity of the routing	No	No	No
7.3	Does the route overlap any other Designated Sites (pNHAs, NHAs)	No	No	No
7.4	Sensitive habitat types (including water courses, forests etc.)	Route has 2 No. Streams and 1 No. River Crossing	Route has 1 No. Stream Crossing	Route has 2 No. Streams Crossing
7.5	Impact on existing hedgerows or ditches	Pipeline route crosses 17 number hedgerows/ ditches.	Pipeline route crosses 3 number hedgerows/ ditches.	Pipeline route crosses 17 number hedgerows/ ditches.
8.0	Cultural Heritage			
	The route of the pipeline will be selected to avoid significant direct and indirect impacts on archaeological, cultural heritage and architectural heritage designations. The assessment examines the potential impacts to each of the sub criteria from each of the alternatives.			
8.1	Potential to impact on Recorded Monuments and Places	Medium/High There are two recorded monuments in the vicinity of the route. A burial mound approx. 95m from the route and a souterrain (underground chamber) approximately 100m from the route. There is a significant risk that this route will encounter archaeological monuments.	Low There are three recorded monuments, two crop-mark enclosures and a ring ditch. One of the enclosures and the ditch are located approximately 130m from the route, while the other enclosure is located circa 80m from the route. It is not considered to increase the risk significantly.	Low There are two recorded monuments, crop-mark enclosures and a ring ditch, located approximately 130m from the route. It is not considered to increase the risk significantly.
8.2	Potential to impact on Protected Structures	Low There are no protected structures within 5 m proximity of the route	Low There are no protected structures within 5 m proximity of the route	Low There are no protected structures within 5 m proximity of the route
9.0	Hydrology and Hydrogeology			
	The route of the pipeline will be selected to avoid significant direct and indirect impacts on the surface water and groundwater. The assessment examines the potential impacts to each of the sub criteria from each of the alternatives			
9.1	Is routing associated with an area at risk to flooding	Approx. 670 m of the pipe is routed through a floodplain.	Approx. 40 m of the pipe is routed through a floodplain.	Approx. 90 m of the pipe is routed through a floodplain.
9.2	Groundwater Protection Zone	Medium There is no distinguishment between routes (Groundwater in SAC Habitats and Groundwater in SAC)	Medium There is no distinguishment between routes (Groundwater in SAC Habitats and Groundwater in SAC)	Medium There is no distinguishment between routes (Groundwater in SAC Habitats and Groundwater in SAC)
10.0	Soils and Geology			
	The route of the pipeline will be selected to avoid significant direct and indirect impacts on soils and geology, including an assessment of potential contaminated land. The assessment examines the potential impacts to each of the sub criteria from each of the alternatives.			
10.1	Soil and Subsoil Classification	Fine loamy drift with limestones and river alluvium	Fine loamy drift with limestones and river alluvium	Fine loamy drift with limestones
10.2	Potential for Karstified Areas	High Long section with areas with rock near the surface	Medium Rock along some of Abbey Road, it reduced as the route moves south.	Low/Medium Are west of Abbey Road has tills and the risk related to rock is reduced.
10.3	Contaminated Land	No - based on existing desktop information	No - based on existing desktop information	No - based on existing desktop information
11.0	Air, Noise and Vibration			
	The route of the pipeline will be selected to avoid significant direct and indirect impacts on humans and sensitive receptors. The assessment examines the potential impacts to each of the sub criteria from each of the alternatives.			
11.1	Potential impacts on human beings / dwellings during construction	Low Impact less than 10 dwellings.	Low/Medium Impact less than 15 dwellings.	Low Impact less than 5 dwellings.
11.2	Proximity to human non-dwelling Sensitive Receptors (e.g. Schools, Hospitals, Nursing Homes etc.)	None	Medium Duleek Boys National School	None