

Southampton to London Pipeline Project

Volume 6

Environmental Statement (Volume B)
Chapter 17: Summary of Significant Residual
Effects

Application Document: 6.2

Planning Inspectorate Reference Number: EN070005

APFP Regulation No. 5(2)(a)

Revision No. 1.0

May 2019



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17 Summary of Significant Residual Effects

- 17.1.1 Residual effects are those that are predicted to remain once the mitigation measures described in this Environmental Statement (ES) have been implemented.
- 17.1.2 Table 17.1 documents the potential significant effects (those effects which, in the absence of mitigation, would have a moderate or high level of significance) arising from the construction phase for each topic within the ES. The table also sets out the mitigation measures identified through the environmental assessment process, and the residual significant effects taking these measures into account.
- 17.1.3 The Register of Environmental Actions and Commitments (REAC) in Chapter 16 lists all of the design measures, good practice measures and environmental mitigation measures for the project. These measures are secured through Development Consent Order requirements such as the Code of Construction Practice.

Construction

- 17.1.4 Significant residual effects arising from the construction phase are predicted in relation to the loss of Tree Preservation Order (TPO) trees, and in relation to temporary noise disturbance. No significant residual effects are predicted for any other environmental topics of this ES during the construction phase. The significant residual effects are as follows:
- TPO trees will be removed along the route as a result of pipeline installation. The design of the route and the application of good practice measures, including narrow width working and trenchless crossings, has reduced the impacts arising from pipeline installation on woodland, TPOs and protected trees. Whilst the establishment of reinstatement planting would reduce the effect of lost vegetation, a precautionary approach to assessment indicates that it would not be possible to fully mitigate the permanent loss of valued trees. Post construction year 15, the magnitude of impact would be medium and the significance of effect would be moderate.
 - A number of receptors may experience adverse noise impacts during construction works, even with the application of noise-reducing measures. However, these will be temporary and short term, and within the normal working hours unless by exception. The commitment to agreeing a Noise and Vibration Management Plan with the relevant planning authority would establish appropriate noise and vibration mitigation to be implemented during the works.

Operation

- 17.1.5 No potential significant effects were identified for any environmental topic of this ES during operation of the pipeline, and therefore there no significant residual effects are predicted.



Table 17.1: Summary of Potential Significant Effects, ES Mitigation and Residual Significant Effects During Construction

Receptors (or group of receptors)	Description of potential significant effect	Potential significance of effect	Additional mitigation measure(s)	Significance of residual effect
Chapter 7 - Biodiversity				
No potential significant effects identified.				
Chapter 8 - Water				
Groundwater Dependent Terrestrial Ecosystems (GWDTE) with national or international designations and high or moderate groundwater dependency	Interception of shallow groundwater in the pipeline trench, which could lead to the reduction of flows to GWDTE.	Moderate	Dewatering would be limited in areas where abstraction/drainage of shallow groundwater may lead to a fall in groundwater levels in the vicinity of GWDTEs or adversely affect surface water quality (W11).	Minor (not significant)
Unlicensed groundwater private water supplies, which may not have been identified	Interception of shallow groundwater in the pipeline trench, which could lead to the reduction of flows to shallow licensed and unlicensed groundwater private water supplies.	Moderate to negligible	<p>For private water supplies (PWS) the following would be put in place:</p> <ul style="list-style-type: none"> • In the event of a landowner or tenant complaining that installation activities have affected their PWS, an initial response would be provided within 24 hours. • Where the installation works have affected a PWS, an alternative water supply would be provided, as appropriate. • In the event of a significant spill during construction: <ul style="list-style-type: none"> ➢ all landowners/tenants would be contacted within 24 hours, within 250m of the spill, to determine if there are any PWS that might be affected; ➢ an assessment of the likelihood of groundwater contamination supplying identified PWS would be undertaken; ➢ where requested by the relevant landowner, monitoring of well water would be undertaken for a determined period of time, taking into account pollution travel time in groundwater, to determine whether pollution has occurred; and ➢ where a PWS is affected, an alternative water supply would be provided, as appropriate (W12). 	Negligible (not significant)



Receptors (or group of receptors)	Description of potential significant effect	Potential significance of effect	Additional mitigation measure(s)	Significance of residual effect
Ordinary watercourse at Wintershill	Poor quality groundwater discharging to the watercourse via the trench.	Moderate	Dewatering would be limited in areas where abstraction/drainage of shallow groundwater may lead to a fall in groundwater levels in the vicinity of GWDTEs or adversely affect surface water quality (W11)	Minor (not significant)
Buildings identified at trenchless crossings	Dewatering of shafts for trenchless crossings leading to subsidence of buildings and a Grade II Listed building at Steep Acre Farm.	Moderate	Temporary sheet piling or similar for control of groundwater would be put in place at the following trenchless crossings: TC 014, TC 015, TC 020, TC 023, TC 031, TC 032, TC 036, TC 037, TC 040 and TC 042, unless a detailed assessment is undertaken which demonstrates that no building or infrastructure is at risk of differential settlement (W13)	Minor (not significant)
Fluvial, surface water, reservoirs, canals and water infrastructure	Construction activities are required within the floodplain, which without mitigation could cause significant effects on flood risk receptors.	Moderate to Major	Works (including storage of materials) would be limited within Flood Zone 3 where appropriate (W3, W5, W6 and W7), and the embankment dam at Cove Brook will be reinstated as soon as practicable after installation (W9).	Minor (not significant)
Chapter 9 - Historic Environment				
Grade II Listed Building at Steep Acre Farm (Asset 829)	Dewatering of shafts for trenchless crossings leading to subsidence of a Grade II Listed building at Steep Acre Farm.	Moderate	Temporary sheet piling or similar for control of groundwater would be put in place at the following trenchless crossings: TC 014, TC 015, TC 020, TC 023, TC 031, TC 032, TC 036, TC 037, TC 040 and TC 042, unless a detailed assessment is undertaken which demonstrates that no building or infrastructure is at risk of differential settlement (W13)	Minor (not significant)
Chapter 10 - Landscape and Visual				
Tree Preservation Orders (TPOs)	A collective loss of TPO and protected trees in post construction year 15.	Moderate	Native trees and hedgerows would be planted within areas identified as tree planting and hedge infilling on Figure 7.5 of the ES (LV1).	Moderate
Chapter 11 - Soils and Geology				
No potential significant effects identified.				
Chapter 12 - Land Use				
No potential significant effects identified.				



Receptors (or group of receptors)	Description of potential significant effect	Potential significance of effect	Additional mitigation measure(s)	Significance of residual effect
Chapter 13 - People and Communities				
Visitors to the Chertsey agricultural show	Disruption to visitors to the show if this coincided with construction works in the same location.	Significant	The project would work with the Chertsey Agricultural Show to limit impacts to the Show at Chertsey Meads and along Mead Lane (PC1)	Not significant
Appendix 13.3 - Noise and Vibration Technical Note				
Rural residential properties	Temporary and short-term noise during installation, occurring within normal working hours unless by exception	Significant	Noise-reducing measures would be identified as part of preparation of a Noise and Vibration Management Plan, to be agreed with the relevant planning authority (G99). This would provide appropriate noise and vibration mitigation during the works.	Significant at 10-40 receptors, depending on level of noise reduction achieved.
Rural community receptors	Temporary and short-term noise during installation, occurring within normal working hours unless by exception.	Significant	Noise-reducing measures would be identified as part of preparation of a Noise and Vibration Management Plan, to be agreed with the relevant planning authority (G99). This would provide appropriate noise and vibration mitigation during the works.	Significant at <5 receptors.
Urban residential properties	Temporary and short-term noise during installation, occurring within normal working hours unless by exception	Significant	Noise-reducing measures would be identified as part of preparation of a Noise and Vibration Management Plan, to be agreed with the relevant planning authority (G99). This would provide appropriate noise and vibration mitigation during the works.	Significant at 45-370 receptors, depending on level of noise reduction achieved.
Urban community receptors	Temporary and short-term noise during installation, occurring within normal working hours unless by exception	Significant	Noise-reducing measures would be identified as part of preparation of a Noise and Vibration Management Plan, to be agreed with the relevant planning authority (G99). This would provide appropriate noise and vibration mitigation during the works.	Significant at 20-65 receptors, depending on level of noise reduction achieved.
Chapter 14 - Major Accidents				
No potential significant effects identified.				



Receptors (or group of receptors)	Description of potential significant effect	Potential significance of effect	Additional mitigation measure(s)	Significance of residual effect
Chapter 15 - Cumulative Effects				
No potential significant effects identified.				