Thurrock Flexible Generation Plant

Preliminary Environmental Information Report
Chapter 19: Summary of Further Mitigation, Residual effects and Monitoring

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Environmental Impact Assessment

Preliminary Environmental Information Report

Volume 4

Chapter 19

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Summary

This document summaries the proposed mitigation, residual effects of the EIA process and proposed monitoring to be undertaken for Thurrock Flexible Generation Plant. Full details can be found in the individual topic chapters (Volume 3 Chapters 6 to 16) of this PEIR.

Qualifications

This document has been prepared by Tara Barratt, MSc in Environmental Technology, who has two years' experience. Tara is an Associate Member of the Institute of Environmental Management and Assessment (IEMA).

This document has been checked by Tom Dearing, a Chartered Environmentalist and full Member of the Institute of Environmental Management and Assessment, who has eight years' experience of environmental impact assessment.

1. Introduction

1.1 Purpose of this chapter

1.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) presents the summary of mitigation, residual effects and monitoring following the findings of Environmental Impact Assessment (EIA) work undertaken concerning potential impacts of Thurrock Flexible Generation Plant.

1.1.2 The PEIR is being published to inform pre-application consultation. Following consultation, comments on the PEIR will be reviewed and taken into account in preparation of the Environmental Statement (ES) that will accompany the application to the Planning Inspectorate (PINS) for development consent.

1.1.3 The proposed mitigation and monitoring identified during the EIA process are summarised in Table 1.1. Full details can be found in the individual topic chapters (Volume 3, Chapters 6 to 16) of this PEIR.

Table 1.1: Summary of Further Mitigation, Residual Effects and Monitoring

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Chapter 6: Landscape and Visual Resources							
Construction							
Direct and indirect impacts on landscape resources and receptors	None	Small	Medium	Minor to moderate adverse (not significant)	None	Minor to moderate adverse (not significant)	None
Direct impact on visual resources and receptors	None	No change to medium	Low to high	None to major adverse (not significant to significant)	None	None to major adverse (not significant to significant)	None
Operation and maintenance							
Direct and indirect impacts on landscape resources and receptors	Designed in measures	Negligible to medium	Low to medium	Negligible to moderate adverse (not significant)	None	Negligible to moderate adverse (not significant)	Five year defects liability period as part of a Landscape Scheme and Management Plan to be produced
Direct impact on visual resources and receptors	Designed in measures	No change to medium	Low to high	None to major adverse (not significant to significant)	None	None to major adverse (not significant to significant)	Five year defects liability period as part of a Landscape Scheme and Management Plan to be produced
Decommissioning							
Direct and indirect impacts on landscape resources and receptors	None	Negligible to medium	Medium	Negligible to moderate adverse (not significant)	None	Negligible to moderate adverse (not significant)	None
Direct impact on visual resources and receptors	None	Negligible to medium	Low to high	Negligible to moderate to major adverse (not significant to significant)	None	Negligible to moderate to major adverse (not significant to significant)	None
Chapter 7: Historic Environment							
Construction							
Construction of Thurrock Flexible Generation Plant (including any stripping required for storage, compounds and accesses) could result in permanent loss of or damage to, heritage assets comprising buried archaeological remains	Programme of fieldwork, recording and reporting	Minor to negligible	Medium to high	Minor adverse (not significant in EIA terms)	Further geophysical survey will be undertaken and depending on results, a scheme of further investigation	Minor adverse (not significant in EIA terms)	None

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Construction works at Thurrock Flexible Generation Plant could potentially result in temporary impacts on the settings of heritage assets including Scheduled Monuments (SMs), listed buildings, Conservation Areas and Registered Parks and Gardens	Designed in measures	Negligible to minor	Medium to high	Minor to moderate adverse (not significant to significant in EIA terms)	None	Minor to moderate adverse (not significant to significant in EIA terms)	None
Construction works at Thurrock Flexible Generation Plant could result in temporary impacts on the overall historic landscape	Designed in measures	Minor	Low	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Operation and maintenance							
The operation and maintenance of Thurrock Flexible Generation Plant could result in long-term reversible impacts on the settings of heritage assets including SMs, listed buildings, Conservation Areas and Registered Parks and Gardens	Designed in measures	Negligible to minor	Medium to high	Minor to moderate adverse (not significant to significant in EIA terms)	None	Minor to moderate adverse (not significant to significant in EIA terms)	None
The operation and maintenance of Thurrock Flexible Generation Plant could result in long-term reversible impacts on the overall historic landscape	Designed in measures	Minor	Low	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Decommissioning							
Decommissioning works at Thurrock Flexible Generation Plant could result in temporary impacts on the settings of heritage assets including SMs, listed buildings, Conservation Areas and Registered Parks and Gardens	Designed in measures	Negligible to minor	Medium to high	Negligible to moderate adverse (not significant to significant in EIA terms)	None	Negligible to moderate adverse (not significant to significant in EIA terms)	None

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Decommissioning works at Thurrock Flexible Generation Plant could result in temporary impacts on the overall historic landscape	Designed in measures	Minor	Low	Negligible to minor adverse (not significant in EIA terms)	None	Negligible to minor adverse (not significant in EIA terms)	None
Chapter 8: Land Use, Agriculture and Socio-economics							
Construction							
Impact on ALC	None	Minor	Medium	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Impact on farm holdings	None	Negligible	Medium	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Loss of Access Land	Provision of replacement land	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Creation of jobs	None	Minor	Medium	Minor beneficial (not significant in EIA terms)	None	Minor beneficial (not significant in EIA terms)	None
Operation and maintenance							
Impact on ALC	None	Negligible	Medium	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Impact on farm holdings	None	Negligible	Medium	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Creation of jobs	None	Negligible	Medium	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Decommissioning							
Creation of jobs	None	Minor	Medium	Minor beneficial (not significant in EIA terms)	None	Minor beneficial (not significant in EIA terms)	None
Chapter 9: Ecology							
Construction							
Permanent loss of grassland	Minimising grassland loss where practicable	Major	Medium	Moderate adverse (significant in EIA terms)	Grassland creation in Zone F to provide greater area than permanently lost	Minor beneficial (not significant in EIA terms)	Vegetation monitoring to assess success of habitat creation
Permanent loss of ditches	Retention of ditches where practicable e.g. Zone A boundaries	Major	Low	Minor adverse (not significant in EIA terms)	Ditch creation in Zone F to provide no net loss	No change (not significant in EIA terms)	None
Permanent loss of hedgerows	Retention of hedgerows where practicable	To be assessed at Environmental Statement (ES) stage	Low	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Permanent loss of invertebrate habitat	Minimising grassland loss where practicable	Major	Medium	Moderate adverse (significant in EIA terms)	Invertebrate habitat creation in Zone F to provide greater area than permanently lost	Minor beneficial (not significant in EIA terms)	Habitat condition monitoring to assess success of habitat creation
Permanent loss of reptile habitat	Minimising habitat loss where practicable	Major	Medium	Moderate adverse (significant in EIA terms)	Reptile habitat creation in Zone F to provide greater area than permanently lost, translocation from works area	Minor beneficial (not significant in EIA terms)	Reptile population monitoring
Permanent loss of breeding bird habitat	Minimising habitat loss where practicable	Minor	Low	Minor adverse (not significant in EIA terms)	Habitat creation in Zone F to provide greater area than permanently lost, particularly for Cetti's Warbler	Minor beneficial (not significant in EIA terms)	Bird population monitoring
Permanent loss of wintering bird habitat	Minimising habitat loss where practicable	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage
Permanent loss of water vole habitat	Minimising habitat loss where practicable	Major	Medium	Moderate adverse (significant in EIA terms)	Water vole habitat creation in Zone F to provide no net loss, translocation from works area	No change (not significant in EIA terms)	Water vole population monitoring
Permanent loss of bat foraging habitat	Minimising habitat loss where practicable	Minor	Medium	Minor adverse (not significant in EIA terms)	Habitat creation in Zone F to provide greater area than permanently lost,	Minor beneficial (not significant in EIA terms)	None
Permanent loss of badger habitat	Minimising habitat loss where practicable	Minor	Low	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Temporary loss of grassland	Minimising habitat loss where practicable	Minor	Low	Negligible adverse (not significant in EIA terms)	Grassland creation in Zone F to provide overall net gain in area	Minor beneficial (not significant in EIA terms)	None
Temporary loss of ditches	Minimising habitat loss where practicable	Minor	Low	Minor adverse (not significant in EIA terms)	Ditch restoration following construction	No change (not significant in EIA terms)	None
Temporary loss of hedgerows	Retention of hedgerows where practicable	To be assessed at ES stage	Low	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage
Temporary loss of reptile habitat	Minimising habitat loss where practicable	Minor	Medium	Minor adverse (not significant in EIA terms)	Translocation of reptiles and habitat restoration	No change (not significant in EIA terms)	None
Temporary loss of breeding bird habitat	Minimising habitat loss where practicable	Minor	Low	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Temporary loss of water vole habitat	Minimising habitat loss where practicable	Minor	Medium	Minor adverse (not significant in EIA terms)	Habitat restoration post-construction	No change (not significant in EIA terms)	None

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Airborne pollutant effects on designated sites	Measures to reduce dust generation and other emissions during construction as set out in the Code of Construction Practice (CoCP)	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Airborne pollutant effects on habitat sites	Measures to reduce dust generation and other emissions during construction as set out in CoCP	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Runoff pollutant effects on designated sites	Measures to manage discharges to surface water as set out in CoCP	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Runoff pollutant effects on habitats	Measures to manage discharges to surface water as set out in CoCP	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Noise, lighting and visual disturbance effects on breeding birds	Measures to minimise noise and lighting as set out in CoCP	Minor	Medium	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Noise, lighting and visual disturbance effects on wintering birds	Measures to minimise noise and lighting as set out in CoCP	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage
Lighting effects on foraging bats	Measures to minimise lighting as set out in CoCP	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Operation and maintenance							
Aerial emissions on designated sites during operation	See Air Quality	Negligible	Medium to very high	Negligible to minor adverse (not significant in EIA terms)	None	Negligible to minor adverse (not significant in EIA terms)	None
Surface water effects on designated sites and habitats during operation	See Hydrology and Flood Risk	No change	High	No change (not significant in EIA terms)	None	No change (not significant in EIA terms)	None
Noise and lighting effects on breeding birds during operation	Access road unlit. Use of directional security lighting to minimise light spillage	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Noise and lighting effects on wintering birds during operation	Access road unlit. Use of directional security lighting to minimise light spillage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage	To be assessed at ES stage
Lighting effects on bats during operation	Access road unlit. Use of directional security lighting to minimise light spillage	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Decommissioning							

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Impacts on designated sites	To be provided in Decommissioning Plan	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Impacts on habitats	To be provided in Decommissioning Plan	Negligible	Medium	Negligible adverse (not significant in EIA terms)	None	Negligible adverse (not significant in EIA terms)	None
Impacts on species	To be provided in Decommissioning Plan	Minor	Medium	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Chapter 10: Traffic and Transport							
Construction							
Driver Delay	An Outline Construction Traffic Management Plan (CTMP) will be submitted to minimise the impacts of construction vehicle movements and to manage those movements in a manner that road safety is maintained. There will also be temporary reductions in speed limits at constrained junctions	Negligible	Negligible / Low / High	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Severance		Negligible	Negligible / Low / High	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Pedestrian Delay		Negligible	Negligible / Low / High	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Pedestrian Amenity		Moderate	Negligible / Low / High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Accidents and Road Safety		Negligible	Negligible / Low / High	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Abnormal Indivisible Loads	The route, timing and method of transport of abnormal indivisible loads will be discussed and agreed with Highways England, the police and relevant highways and bridge authorities	Negligible	Negligible	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Chapter 11: Noise and Vibration							
Construction							
Noise from construction activity	Application of Best Practice Means; noise management measures detailed within the CoCP; and carrying out the majority of construction activities between the hours of 08:00-18:00 Monday to Friday and Saturday 08:00-13:00	Moderate	Medium	Moderate adverse (determined that this is not significant in EIA terms)	None	Moderate adverse (determined that this is not significant in EIA terms)	None
Construction traffic noise		Minor	Medium	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Operation and maintenance							

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Operation of the proposed development	Enclosures surrounding the gas engines; high specification exhaust silencers; acoustically lagged external exhaust ductwork; enhanced air inlet/outlet silencers; and low noise air conditioning units.	Minor	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Decommissioning							
Noise from decommissioning activity	Measures adopted would remain similar to the construction phase	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Chapter 12: Air Quality							
Construction							
Increase in suspended particulate matter concentrations and deposited dust	Best practice measures for a medium risk site as recommended in the IAQM dust guidance	Large for Construction, Earthworks and Trackout	All low, medium and high sensitivity receptors within 350 m of the site boundary were considered. The sensitivity of the area was low or medium	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Operation and maintenance							
Increase in NO_2 concentrations	None	Negligible to moderate adverse	Specific to each receptor	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Decommissioning							
Increase in suspended particulate matter concentrations and deposited dust	Assumed to be the same as for the construction phase	Large for Construction, Earthworks and Trackout (assumed to be the same as for the construction phase)	All low, medium and high sensitivity receptors within 350 m of the site boundary were considered	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Chapter 13: Human Health							
Construction							
Human health effects from changes to air quality	As per Chapter 12: Air Quality	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 12: Air Quality	Minor adverse (not significant in EIA terms)	As per Chapter 12: Air Quality
Human health effects from changes in noise exposure	As per Chapter 11: Noise and Vibration	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 11: Noise and Vibration	Minor adverse (not significant in EIA terms)	As per Chapter 11: Noise and Vibration
Human health effects from changes to transport nature and flow rate	As per Chapter 10: Traffic and Transport	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 10: Traffic and Transport	Minor adverse (not significant in EIA terms)	As per Chapter 10: Traffic and Transport

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Human health effects from changes from income and employment generation	As per Chapter 8: Land Use, Agriculture and Socio-Economics	Negligible	High	Minor beneficial (not significant in EIA terms)	As per Chapter 8: Land Use, Agriculture and Socio-Economics	Minor beneficial (not significant in EIA terms)	As per Chapter 8: Land Use, Agriculture and Socio-Economics
Operation and maintenance							
Human health effects from changes to air quality	As per Chapter 12: Air Quality	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 12: Air Quality	Minor adverse (not significant in EIA terms)	As per Chapter 12: Air Quality
Human health effects from changes in noise exposure	As per Chapter 11: Noise and Vibration	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 11: Noise and Vibration	Minor adverse (not significant in EIA terms)	As per Chapter 11: Noise and Vibration
Human health effects from changes to transport nature and flow rate	As per Chapter 10: Traffic and Transport	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 10: Traffic and Transport	Minor adverse (not significant in EIA terms)	As per Chapter 10: Traffic and Transport
Human health effects from changes from income and employment generation	As per Chapter 8: Land Use, Agriculture and Socio-Economics	Negligible	High	Minor beneficial (not significant in EIA terms)	As per Chapter 8: Land Use, Agriculture and Socio-Economics	Minor beneficial (not significant in EIA terms)	As per Chapter 8: Land Use, Agriculture and Socio-Economics
Decommissioning							
Human health effects from changes to air quality	As per Chapter 12: Air Quality	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 12: Air Quality	Minor adverse (not significant in EIA terms)	As per Chapter 12: Air Quality
Human health effects from changes in noise exposure	As per Chapter 11: Noise and Vibration	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 11: Noise and Vibration	Minor adverse (not significant in EIA terms)	As per Chapter 11: Noise and Vibration
Human health effects from changes to transport nature and flow rate	As per Chapter 10: Traffic and Transport	Negligible	High	Minor adverse (not significant in EIA terms)	As per Chapter 10: Traffic and Transport	Minor adverse (not significant in EIA terms)	As per Chapter 10: Traffic and Transport
Human health effects from changes from income and employment generation	As per Chapter 8: Land Use, Agriculture and Socio-Economics	Negligible	High	Minor beneficial (not significant in EIA terms)	As per Chapter 8: Land Use, Agriculture and Socio-Economics	Minor beneficial (not significant in EIA terms)	As per Chapter 8: Land Use, Agriculture and Socio-Economics
Chapter 14: Climate Change							
Construction							
Direct and indirect emission of greenhouse gases	Measures in CoCP to reduce emissions from construction plant and embodied carbon in materials	*De minimis*	High	Negligible (not significant in EIA terms)	Good practice goals to seek a lean design and minimise embodied carbon	Negligible (not significant in EIA terms)	None
Operation and maintenance							
Direct and indirect emission of greenhouse gases	Carbon capture readiness (CCR) land Organic Rankine cycle (ORC) system	-11 MtCO2e to -22 MtCO2e (net)	High	Beneficial (significant in EIA terms)	Possible future use of CCS	Beneficial (significant in EIA terms)	Required by GHG Emissions Permit
Decommissioning							

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Direct and indirect emission of greenhouse gases	n/a	*De minimis*	High	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
Chapter 15: Hydrology and Flood Risk							
Construction							
The construction of permanent assets may lead to increased flood risk	Construction measures; surface water drainage scheme and best practice measures	Minor	Low	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Temporary construction may lead to increased flood risk	Construction measures; surface water drainage scheme and best practice measures	Minor	Low	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Construction may cause risk of leaks and spills to surface watercourses	Practices to include emergency spill response procedures, clean up and remediation of contaminated water run-off	No change	Low	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
The impacts of trenchless construction techniques may affect major surface watercourses	Surface water drainage scheme; pollution prevention measures; and best practice measures	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
The impacts of open cut, temporary bridging and culverts may affect surface watercourses	Surface water drainage scheme; pollution prevention measures; and best practice measures	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
The construction of permanent assets may affect field drainage and irrigation	Surface water drainage scheme; pollution prevention measures; and best practice measures	Minor	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Temporary construction may affect field drainage and irrigation	Surface water drainage scheme; pollution prevention measures; and best practice measures	Minor	Medium	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Operation and maintenance							
The impacts of operation and maintenance may lead to increased flood risk	Practices to incorporate measures to reduce flood risk	No change	Low	Negligible (not significant in EIA terms)	None	Negligible (not significant in EIA terms)	None
The impact of flexible generation plant operation and maintenance may affect main or ordinary surface watercourses	Surface water drainage scheme; pollution prevention measures; and best practice measures	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
The impact of pipeline maintenance may affect main or ordinary surface watercourses	Surface water drainage scheme; pollution prevention measures; and best practice measures	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Decommissioning							
The impacts of decommissioning may affect temporary flood risk	Would remain similar to construction phase measures	Minor	Low	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
The impacts of decommissioning may affect main surface watercourses	Would remain similar to construction phase measures	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
The impacts of decommissioning may affect ordinary watercourses	Would remain similar to construction phase measures	Negligible	High	Minor adverse (not significant in EIA terms)	None	Minor adverse (not significant in EIA terms)	None
Chapter 16: Geology, Hydrogeology and Ground Conditions							
Construction							
Potential for earthworks to mobilise unexpected ground contamination or create preferential pathways to groundwater	Good environmental practices will be implemented based on current legal responsibilities and guidance on good environmental management	Minor	Low to high	Negligible to minor adverse (not significant in EIA terms)	None	Negligible to minor adverse (not significant in EIA terms)	None
Potential for construction activity to cause soil or groundwater contamination		Negligible	Low to high	Negligible to minor adverse (not significant in EIA terms)	None	Negligible to minor adverse (not significant in EIA terms)	None
Operation and maintenance							
Pollution of Soils and/or Controlled Waters	The development will be operated in accordance with an Environmental Permit and will have a managed surface drainage system with oil interceptors, bunding and spill kits in case of accidents	Negligible	Low to high	Negligible to minor adverse (not significant in EIA terms)	None	Negligible to minor adverse (not significant in EIA terms)	None
Decommissioning							

Description of impact	Measures adopted as part of the project	Magnitude of impact	Sensitivity of receptor	Significance of effect	Additional measures	Residual effect	Proposed monitoring
Impacts of decommission may cause contamination of Secondary Aquifers, the Principal Aquifer and drainage ditches	Good environmental practices will be implemented based on current legal responsibilities and guidance on good environmental management	Minor	Low to high	Negligible to minor adverse (not significant in EIA terms)	None	Negligible to minor adverse (not significant in EIA terms)	None