

# Riverside Energy Park

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# Environmental Statement

## Chapter 16: Summary of Findings and In-Combination Effects

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## 16 Summary of Findings and In-Combination Effects

### 16.1 Introduction

16.1.1 This Chapter summarises findings of the Environmental Impact Assessment (EIA) and also the potential in-combination effects arising from the Proposed Development.

16.1.2 Initial assessments (Section 9 of **Chapters 6 – 14** respectively) take embedded mitigation into account (i.e. the Outline Code of Construction Practice (CoCP) **Document Reference 7.5**). The assessments of residual effects from the Proposed Development take both embedded and further mitigation measures into account. These assessments are reported within the relevant topic chapters of the Environmental Statement (ES) (**Chapters 6-14**), and outlined in **Table 16.1** below.

16.1.3 Environmental effects on receptors are assessed relative to the topic under consideration. This approach can sometimes lead to individual effects being reported in separate chapters but the collective effect on the same environmental receptor(s) not being considered. For the purposes of this assessment, the interactions between different environmental effects associated with the Proposed Development are defined as ‘in-combination effects’, which are detailed in **Table 16.2**.

16.1.4 It is considered that this Chapter addresses the requirements of Regulation 5 (2)(e) of The Infrastructure Planning (Environmental Impact Assessment) (EIA) Regulations 2017 (as amended).

### 16.2 Summary of Findings

16.2.1 **Chapters 6-14** present the assessment of effects relating to the following environmental topics:

- Chapter 6 – Transport;
- Chapter 7 – Air Quality;
- Chapter 8 – Noise and Vibration;
- Chapter 9 – Townscape and Visual Impact (TVIA);
- Chapter 10 – Historic Environment;
- Chapter 11 – Terrestrial Biodiversity;
- Chapter 12 – Hydrology, Flood Risk and Water Resources;
- Chapter 13 – Ground Conditions; and
- Chapter 14 – Socio-economics.

16.2.2 As set out in **Table 16.1** below, the majority of assessments undertaken have not identified significant adverse residual effects from the construction of the Proposed Development. The exceptions are the Townscape and Visual Impact assessment (which has identified Moderate adverse effects on the Application Site and visual receptors SA1 East/West, 2, 3, 6, 7, 8, 10 and 11) and the socio-

economic assessment which has identified significant beneficial effects to the Labour Market and local accommodation providers. It is noted that these impacts are temporary and last only for the duration of construction.

16.2.3 No significant residual effects from operation of the Proposed Development have been identified other than through the Townscape and Visual Impact Assessment (both beneficial and adverse): Effects to townscape - Crossness Conservation Area; Application Site; Designated Open Space, Landscapes and scrubland habitats; Scale; Grain and Massing; Appearance and Legibility. Effects to visual receptors – SA1 East/West, 2, 3, 6 and 11. Significant beneficial effects have been identified to the Labour Market and the Waste Sector.

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Table 16.1 Summary of findings from assessment of Construction/Decommissioning

ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
6 - Transport	REP site and Main Temporary Construction Compound	Construction/Decommissioning - Severance	Identified Links and Public Rights of Way	Reduced connection between places (e.g. Perceived separation) due to impacts on Public Rights of Way (PRoW)	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	REP site and Main Temporary Construction Compound	Construction/Decommissioning - Driver Delay	Identified Junctions	Increase in delay to drivers through queueing	Junction (J) 1, 2, 3, 5 & 6 - Negligible & Not Significant  J4 – <b>Moderate</b> adverse & <b>Significant</b>	Construction Transport Management plan (CTMP)	Minor Adverse or Negligible & Not Significant
6 - Transport	REP site and Main Temporary Construction Compound	Construction/Decommissioning - Pedestrian Delay and amenity	Identified Links	Increase in delay to pedestrian walking journey due to increased traffic movements	Minor adverse & Not Significant	N/A	Minor Adverse & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
6 - Transport	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - Pedestrian Fear and Intimidation	Identified Links	Fear and intimidation experienced by pedestrians due to increased vehicle movements	Negligible & Not Significant	N/A	Negligible & Not Significant
6 – Transport	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - Accidents and Road Safety	Identified Junctions	Potential increase in accidents and decrease in road safety due to increased traffic movements	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Severance	Bus services 229, 469, 602 and 669	Bus services providing a reduced or altered service and therefore causing some users groups to be unable to use these services	Minor adverse to potentially <b>Major adverse &amp; Significant</b>	CTMP	Residual effects are not known at this stage, but will be mitigated by the implementation of the CTMP.
6 - Transport	Electrical Connection and Cable Route	Construction/ Decommissioning - Severance	Fastrack bus service route A	Bus services providing a reduced or altered service and	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Temporary Construction Compound			therefore causing some users groups to be unable to use these services			
6 - Transport	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning – Driver Delay	Drivers on Electrical Connection route	Increase in delay to drivers due to increased traffic movements	Minor adverse & Not Significant	Construction Traffic Management Plan (CTMP)	Negligible & Not Significant
6 - Transport	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning – Pedestrian Delay & Amenity	Pedestrians along Electrical Connection route	Increase in delay to pedestrian walking journey due to increased traffic movements	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	Electrical Connection and Cable Route Temporary	Construction/ Decommissioning – Pedestrian Fear and Intimidation	Pedestrians along Electrical Connection route	Fear and intimidation experienced by pedestrians due to	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound			increased vehicle movements			
6 - Transport	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning – Accidents and Road Safety	Road users along Electrical Connection Route	Potential increase in accidents and decrease in road safety	Negligible & Not Significant	N/A	Negligible & Not Significant
7 – Air Quality	REP site and Main Temporary Construction Compound	Construction/ Decommissioning – Dust	Human Biodiversity receptors	Dust generated during construction effecting human and biodiversity receptors	Not Significant	N/A	Not Significant
7 – Air Quality	REP site and Main Temporary Construction Compound	Construction/ Decommissioning – Road Transport	Human receptors	Emissions from additional road traffic affecting human receptors	Negligible & Not Significant	N/A	Negligible & Not Significant
7 – Air Quality	REP site and Main Temporary	Construction/ Decommissioning – River Transport	Human receptors	Emissions from additional river	Negligible & Not Significant	N/A	Negligible & Not Significant



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound			traffic affecting human receptors			
7 – Air Quality	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Dust	Human receptors	Dust generated during construction affecting human receptors	Not Significant	N/A	Not Significant
7 – Air Quality	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Traffic	Human receptors	Emissions from additional road traffic affecting human receptors	Negligible & Not Significant	N/A	Negligible & Not Significant
8 – Noise and Vibration	REP site and Main Temporary Construction Compound	Construction/ Decommissioning – Traffic Noise	Human receptors	Increase in traffic noise on human receptors	Negligible & Not Significant	N/A	Negligible & Not Significant
8 – Noise and Vibration	REP site	Construction/ Decommissioning	Human receptors	Noise from construction of	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
		– Noise		REP affecting human receptors			
8 – Noise and Vibration	Main Temporary Construction Compound	Construction/ Decommissioning – Noise	Human receptors	Noise from laydown/ fabrication affecting human receptors	Negligible & Not Significant	N/A	Negligible & Not Significant
8 – Noise and Vibration	REP site and Main Temporary Construction Compound	Construction/ Decommissioning – Vibration	Human receptors	Increase in vibration affects to human receptors	Negligible & Not Significant	N/A	Negligible & Not Significant
8 – Noise and Vibration	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning – Noise	Human receptors	Noise from construction of Electrical Connection affecting human receptors	Negligible & Not Significant	N/A	Negligible & Not Significant
9 – TVIA	REP Site	Construction impacts - Townscape	Character Area 81: Greater Thames Estuary	Effects to character and features of townscape during	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				construction works at the REP site			
9 – TVIA	REP Site	Construction impacts - Townscape	Character Area 112: Inner London	Effects to character and features of townscape during construction works at the REP site	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Townscape	Thames Floodplain	Effects to character and features of townscape during construction works at the REP site	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Townscape	Lower Thames Floodplain	Effects to character and features of townscape during construction works at the REP site	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Townscape	Crossness Conservation Area	Effects to character and features of townscape during	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				construction works at the REP site			
9 – TVIA	REP Site	Construction impacts - Townscape	Application Site	Effects to character and features of townscape during construction works at the REP site	<b>Moderate Adverse (Significant)</b>	N/A	<b>Moderate Adverse (Significant)</b>
9 – TVIA	REP Site	Construction impacts - Townscape	Tree Cover and TPOs	Effects to character and features of townscape during construction works at the REP site	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Townscape	Designated Open Space, Landscapes and scrubland habitats	Effects to character and features of townscape during construction works at the REP site	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Townscape	Appearance	Effects to character and features of townscape during	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				construction works at the REP site			
9 – TVIA	REP Site	Construction impacts - Townscape	Long distance paths, London and National Cycle Routes, Public Rights of Way	Effects to character and features of townscape during construction works at the REP site	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Visual	SA1-West	Effects on views and visual amenity during construction works at the REP site	<b>Moderate</b> Adverse (Significant)	N/A	<b>Moderate</b> Adverse (Significant)
9 – TVIA	REP Site	Construction impacts - Visual	SA1-East	Effects on views and visual amenity during construction works at the REP site	<b>Moderate</b> Adverse (Significant)	N/A	<b>Moderate</b> Adverse (Significant)
9 – TVIA	REP Site	Construction impacts - Visual	1 – Public Right of Way southeast of REP site	Effects on views and visual amenity during construction works at the REP site	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 – TVIA	REP Site	Construction impacts - Visual	2 – PRoW between Crossness Nature Reserve and Thames Path	Effects on views and visual amenity during construction works at the REP site	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 – TVIA	REP Site	Construction impacts - Visual	3 – PRoW in Crossness Nature Reserve	Effects on views and visual amenity during construction works at the REP site	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 – TVIA	REP Site	Construction impacts - Visual	4 – PRoW between Crossness Nature Reserve and Eastern Road	Effects on views and visual amenity during construction works at the REP site	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Visual	5 – PRoW off Picardy Manorway	Effects on views and visual amenity during construction works at the REP site	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Visual	6 – PRoW at South Mere, west of Erith Marshes	Effects on views and visual amenity during	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				construction works at the REP site			
9 – TVIA	REP Site	Construction impacts - Visual	7 – Edge of Crossness Conservation Area	Effects on views and visual amenity during construction works at the REP site	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 – TVIA	REP Site	Construction impacts - Visual	8 – Lesnes Abbey	Effects on views and visual amenity during construction works at the REP site	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 – TVIA	REP Site	Construction impacts - Visual	9 – Halt Robin Road and north western corner of Franks Park near to Wood Side School	Effects on views and visual amenity during construction works at the REP site	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Visual	10 – Ferry Lane, between Frog Island and Jetty	Effects on views and visual amenity during construction works at the REP site	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 – TVIA	REP Site	Construction impacts - Visual	11 – PRoW west of Horse Shoe Corner	Effects on views and visual amenity during construction works at the REP site	<b>Moderate Adverse (Significant)</b>	N/A	<b>Moderate Adverse (Significant)</b>
9 – TVIA	REP Site	Construction impacts - Visual	12 – Thameside Walk / Thames Path National Trail, northwest of Thamesmere Leisure Centre	Effects on views and visual amenity during construction works at the REP site	No Change	N/A	No Change
9 – TVIA	REP Site	Construction impacts - Visual	13 – Roundabout at junction of A202, A2016, Walnut Tree Road and Bexley Road	Effects on views and visual amenity during construction works at the REP site	No Change	N/A	No Change
9 – TVIA	REP Site	Construction impacts - Visual	14 – Barnes Cray	Effects on views and visual amenity during construction works at the REP site	No Change	N/A	No Change



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 – TVIA	REP Site	Construction impacts - Visual	15 – Bridleway west of Littlebrook Nature Park	Effects on views and visual amenity during construction works at the REP site	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	REP Site	Construction impacts - Visual	16 – Eaglesfield Recreation Ground	Effects on views and visual amenity during construction works at the REP site	No Change	N/A	No Change
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Character Area 81: Greater Thames Estuary	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Character Area 112: Inner London	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Thames Floodplain	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Lower Thames Floodplain	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Cray River Valley	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Western Thames Marshes	Effects to character and features of townscape during	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)

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				construction of Electrical Connection			
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Crossness Conservation Area	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Application Site	Effects to character and features of townscape during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Tree Cover and TPOs	Effects to character and features of townscape during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)

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9 – TVIA	Electrical Connection	Construction impacts - Townscape	Designated Open Space, Landscapes and scrubland habitats	Effects to character and features of townscape during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Appearance	Effects to character and features of townscape during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 – TVIA	Electrical Connection	Construction impacts - Townscape	Long distance paths, London and National Cycle Routes, Public Rights of Way	Effects to character and features of townscape during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	Electrical Connection	Construction impacts - Visual	SA1-West	Effects on views and visual amenity during construction of	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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				Electrical Connection			
9 - TVIA	Electrical Connection	Construction impacts - Visual	SA1-East	Effects on views and visual amenity during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	Electrical Connection	Construction impacts - Visual	1 – PRoW southeast of REP site	Effects on views and visual amenity during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	Electrical Connection	Construction impacts - Visual	2 – PRoW between Crossness Nature Reserve and Thames Path	Effects on views and visual amenity during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	Electrical Connection	Construction impacts - Visual	3 – PRoW in Crossness Nature Reserve	Effects on views and visual amenity during construction of	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				Electrical Connection			
9 - TVIA	Electrical Connection	Construction impacts - Visual	4 – PRoW between Crossness Nature Reserve and Eastern Road	Effects on views and visual amenity during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	Electrical Connection	Construction impacts - Visual	5 – PRoW off Picardy Manorway	Effects on views and visual amenity during construction of Electrical Connection	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	Electrical Connection	Construction impacts - Visual	6 – PRoW at South Mere, west of Erith Marshes	Effects on views and visual amenity during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	7 – Edge of Crossness Conservation Area	Effects on views and visual amenity during construction of	Negligible Adverse (Not Significant)	N/A	No Change

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				Electrical Connection			
9 - TVIA	Electrical Connection	Construction impacts - Visual	8 – Lesnes Abbey	Effects on views and visual amenity during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	9 – Halt Robin Road and north western corner of Franks Park near to Wood Side School	Effects on views and visual amenity during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	10 – Ferry Lane, between Frog Island and Jetty	Effects on views and visual amenity during construction of Electrical Connection	Negligible Adverse (Not Significant)	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	11 – PRoW west of Horse Shoe Corner	Effects on views and visual amenity during construction of	Negligible Adverse (Not Significant)	N/A	No Change

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				Electrical Connection			
9 - TVIA	Electrical Connection	Construction impacts - Visual	12 – Thameside Walk / Thames Path National Trail, northwest of Thamesmere Leisure Centre	Effects on views and visual amenity during construction of Electrical Connection	No Change	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	13 – Roundabout at junction of A202, A2016, Walnut Tree Road and Bexley Road	Effects on views and visual amenity during construction of Electrical Connection	No Change	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	14 – Barnes Cray	Effects on views and visual amenity during construction of Electrical Connection	No Change	N/A	No Change
9 - TVIA	Electrical Connection	Construction impacts - Visual	15 – Bridleway west of Littlebrook Nature Park	Effects on views and visual amenity during construction of	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				Electrical Connection			
9 - TVIA	Electrical Connection	Construction impacts - Visual	16 – Eaglesfield Recreation Ground	Effects on views and visual amenity during construction of Electrical Connection	No Change	N/A	No Change
10 – Historic Environment	REP site and Main Temporary Construction Compound	Construction/ Decommissioning	Geoarchaeological Deposits	Loss of Geoarchaeological deposits during construction	Minor adverse & Not Significant	Excavation of two boreholes to be retained for palaeo-environmental assessment/ analysis.	Minor Beneficial & Not Significant
10 – Historic Environment	REP site and Main Temporary Construction Compound	Construction/ Decommissioning	Crossness Conservation Area, Grade I listed Crossness Pumping Station (NHLE 1064216), two grade II listed workshops at Crossness Pumping Station	Visual effect to significance of assets	Negligible – Minor adverse & Not Significant	N/A	Negligible – Minor Adverse & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
			(NHLE 1064216, 1250557), A locally listed engine house at Crossness Sewage Treatment Work (GLHER MLO103261)				
10 – Historic Environment	REP site and Main Temporary Construction Compound	Construction/Decommissioning	The grade II listed jetty at Dagenham Dock (NHLE 1391706)	Visual effect on setting of assets	Negligible & Not Significant	N/A	Negligible & Not Significant
10 – Historic Environment	REP site and Main Temporary Construction Compound	Construction/Decommissioning	The scheduled and grade II listed Lesnes Abbey (NHLE 1002025, 1359415)	Visual effect on setting of assets	Negligible – Minor adverse & Not Significant	N/A	Negligible – Minor Adverse & Not Significant
10 – Historic Environment	Electrical Connection and Cable Route Temporary	Construction/Decommissioning	Pre-modern deposits and residual material culture	Loss of assets during construction	Negligible and Not Significant	If required, Written Scheme of Investigation identifying where further archaeological	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound					investigations are required, details of measures to protect, record or preserve significant archaeological features.	
10 – Historic Environment	Electrical Connection and Cable Route Temporary Construction Compound	Construction/Decommissioning	Built heritage assets	Effect of the presence of construction teams and noise to assets	Negligible and Not Significant	N/A	Negligible & Not Significant
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/Decommissioning – Direct land take	Designated areas	Direct land take to designated areas from construction works	No Effect	N/A	No Effect
11 – Terrestrial Biodiversity	REP site and Main Temporary	Construction/Decommissioning	Designated areas - Crossness LNR, Belvedere Dykes SINC, River	Indirect effects to receptors from construction works	Effects at the County/ Metropolitan and Local level are	N/A	Effects at the County/ Metropolitan and Local level

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound	- Noise and visual disturbance, dust generation and pollution	Thames and Tidal Tributaries SINC, and Erith Marshes SINC		Not Significant. This is Not Significant in EIA terms		are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/ Decommissioning – Direct loss of habitat	Habitats of ecological importance	Direct loss to habitats from construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms		Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - Loss of habitats	Bats	Loss of habitats used by bats during construction	Not Significant	N/A	Not Significant
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - Permanent and temporary loss of habitats used by breeding birds, direct killing or injury of birds,	Breeding birds	Effects to breeding birds during construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
		damage/destruction of active nests, and noise and visual disturbance					
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/Decommissioning – Temporary disturbance to habitats used by invertebrates	Invertebrates	Effects to invertebrates during construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/Decommissioning - Temporary loss of habitats and potentially killing and/or injury of reptiles	Reptiles	Effects to reptiles during construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/Decommissioning	Water voles	Effects to water voles during construction works	No Effect	N/A	No Effect

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - Disturbance of birds using intertidal areas adjacent to the REP site as a result of noise, lighting and other activity	Wintering birds	Effects to wintering birds during construction works	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Direct effects, short-term temporary habitat loss and disturbance	Designated areas - Crossness LNR, Erith Marshes SINC, Belvedere Dykes SINC, River Cray SINC	Direct effects to designated areas during construction works	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary	Construction/ Decommissioning - Indirect effects, short-term temporary habitat loss	Designated areas - Crossness LNR, Erith Marshes SINC, Belvedere Dykes SINC, Land at Larnar Road,	Indirect effects to designates areas during construction works	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not	N/A	Effects at the County/ Metropolitan and Local level are Not Significant.

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound		Erith SINC, Slade Green Recreation Ground SINC, Railsides from Bexleyheath to Slade Green Triangle SINC, Dartford Marshes SINC and River Cray SINC		Significant in EIA terms		This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ decommissioning	Habitats - Non designated sites	Effects to habitats within Application Boundary from Electrical Connection works outside of designated areas	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ decommissioning – Temporary lighting	Bats	Effects to bats from construction works	No effect	N/A	No effect

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Temporary loss of habitat and destruction of nests during clearance of vegetation	Breeding birds	Effects to breeding birds from construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Temporary habitat loss (if present)	Great Crested Newts (GCN) (if present)	Effects to GCNs from construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Temporary habitat loss, potentially killing or injury	Reptiles	Effects to reptiles should Electrical Connection 1 be chosen ( <b>Figure 1.2</b> )	No Effect	N/A	No Effect



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Temporary habitat loss, potentially killing or injury	Reptiles – Joyce Green Quarry	Effects to reptiles should the Electrical Connection interact with the Joyce Green Quarry site	Effects at the Local level are Significant. This equates to a Minor Adverse effect in EIA terms which is Not Significant	N/A	Effects at the Local level are Significant. This equates to a Minor Adverse effect in EIA terms which is Not Significant
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning - Damage or destruction of burrows and killing or injury of individual water voles	Water voles	Effects to Water voles during construction works	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Construction/ Decommissioning	Over-wintering waterbird species	Effects to over-wintering birds from construction works	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant.

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
							Significant in EIA terms
12 – Hydrology, Flood Risk and Water Resources	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - clearance of vegetation, topsoil stripping and stockpiling, establishment of compound areas, excavation and site levelling/re-profiling to create development platforms, preparation of site roads and construction of foundations	Surface water drainage regime	Reduction in surface water quality surrounding REP/ alteration of natural drainage routes.	Negligible & Not Significant	N/A	Negligible & Not Significant
12 – Hydrology, Flood Risk and Water Resources	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - contamination of surface water and groundwater resulting from	Receiving watercourses and waterbodies	Contamination of receiving watercourses and waterbodies	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
		spilled hydrocarbons/petrochemicals from construction plant and the mobilisation of silts and contaminants during soil stripping and earthworks operations					
12 – Hydrology, Flood Risk and Water Resources	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - potential to affect the stability of the embankment and therefore the structural integrity of the defences	Flood Defences	Loss of integrity of flood defences	Negligible & Not Significant	N/A	Negligible & Not Significant
12 – Hydrology, Flood Risk and Water Resources	Electrical Connection and Cable Route Temporary	Construction/ Decommissioning - earthworks operations and	Surface water drainage regime, watercourses and waterbodies	Reduction in surface water quality surrounding REP/ alteration of	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound	excavation of the cable trench		natural drainage routes.			
12 – Hydrology, Flood Risk and Water Resources	REP site and Main Temporary Construction Compound	Construction/ Decommissioning - potential impact as a result of small scale and localised earthworks operations	Surface water drainage regime and water quality of receiving watercourses and water bodies	Increase in surface water runoff, and contamination of receiving watercourses and bodies during construction works	Negligible & Not Significant	N/A	Negligible & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning – asbestos within made ground	Human Health – Current site users <sup>1</sup>	Exposure to asbestos	<b>Major adverse &amp; Significant</b>	Implementation of Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning – ground gas	Human Health – Current site users <sup>1</sup>	Accumulation of ground gas	<b>Major adverse &amp; Significant</b>	Implementation of Outline Remedial Strategy (ORS)	Negligible & Not Significant

<sup>1</sup> It is noted that the assessment relates to the construction period of the Proposed Development only and is not an assessment of the risks to current RRRF staff prior to construction commencing.

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
13 – Ground Conditions	REP site	Construction/ Decommissioning - dust	Human health – Off site	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning - asbestos	Human health – Construction workers	Exposure to asbestos	<b>Moderate/ Substantial adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning – Ground gas	Human health – Construction workers	Accumulation of ground gas	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning - Contamination	Ground water	Creation of new pathways for contaminated groundwater	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning - Contamination	Surface Water	Release of contaminated surface water	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning – Ground gas	Property (Buildings)	Accumulation of ground gas	<b>Moderate Adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
13 – Ground Conditions	REP site	Construction/ Decommissioning - Dust	Property - Animal or Crop	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Construction/ Decommissioning - Dust	Ecological Systems	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning – Ground gas	Human Health – Current site users <sup>1</sup>	Accumulation of ground gas	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning – Ground gas	Human Health – Construction workers	Accumulation of ground gas	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning - Contamination	Groundwater	Release of contamination into groundwater	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning - Contamination	Surface Water	Release of contamination into surface water	Minor & Not Significant	Working within best practice guidelines in	Negligible/No Effect & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
						accordance with the CoCP	
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning – Ground gas	Property - Buildings	Accumulation of ground gas	Minor adverse & Not Significant	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning - Dust	Property - Animal/Crop	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Main Temporary Construction Compound	Construction/ Decommissioning - Dust	Ecological Systems	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning – Ground gas	Human Health - Construction workers	Accumulation of ground gas	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning - Asbestos	Human Health - Construction workers	Exposure to asbestos	<b>Moderate/ Substantial adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning - Contamination	Groundwater	Release of contamination into groundwater	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning - Contamination	Surface Water	Release of contamination into surface water	Minor & Not Significant	Working within best practice guidelines in accordance with the CoCP	Negligible/No Effect & Not Significant
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning – Ground gas	Property - Buildings	Accumulation of ground gas	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning - Dust	Property - Animals or Crop	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Data Centre site	Construction/ Decommissioning - Dust	Ecological Systems	Exposure to contaminated dust	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Electrical Connection	Construction/ Decommissioning – Ground Gas	Human Health – Construction workers	Accumulation of ground gas	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
13 – Ground Conditions	Electrical Connection	Construction/ Decommissioning - Contamination	Groundwater	Release of contamination into groundwater	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Electrical Connection	Construction/ Decommissioning - Contamination	Surface Water	Release of contamination into surface water	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Construction/ Decommissioning	Labour Market	New employment opportunities	Slight/ <b>Moderate Beneficial &amp; Significant</b>	Exploring the opportunity to utilise local accommodation providers	Slight/ <b>Moderate Beneficial &amp; Significant</b>
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Construction/ Decommissioning	Key Business Sector	Benefit to the construction sector	Slight Beneficial & Not Significant	N/A	Slight Beneficial & Not Significant
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Construction/ Decommissioning	Community Infrastructure	Pressure on existing community infrastructure	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Construction/Decommissioning	Local Accommodation Providers	Opportunities to utilise local accommodation providers	Slight/ <b>Moderate Beneficial &amp; Significant</b>	Exploring the opportunity to utilise local accommodation providers /A	Slight/ <b>Moderate Beneficial &amp; Significant</b>
14 – Socio-economics	Electrical Connection	Construction/Decommissioning	Labour Market	New employment opportunities	Slight beneficial & Not Significant	Exploring the opportunity to utilise local accommodation providers	Slight beneficial & Not Significant

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Table 16.2 Summary of findings from assessment of Operation/Maintenance

ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
6 - Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Severance	Identified Links and Public Rights of Way	Reduced connection between places (e.g. Perceived separation) due to impacts on Public Rights of Way (PRoW) or roads.	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Driver Delay	Identified Junctions	Delay to drivers due to increased traffic	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Pedestrian Delay	Identified Links	Delay to pedestrian walking journey due to increased traffic	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Pedestrian Amenity	Identified Links	Delay to pedestrian walking journey due to increased traffic	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
6 - Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance - Pedestrian Fear and Intimidation	Identified Links	Fear and intimidation experienced by pedestrians due to increased traffic	Negligible & Not Significant to all links apart from Norman Road (south) – Minor adverse & Not Significant	Operational Travel Plan	Negligible & Not Significant to all links apart from Norman Road (south) – Minor Adverse & Not Significant
6 - Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance - Accidents and Road Safety	Defined study area	Potential increase in accidents and decrease in road safety due to increased traffic	Negligible & Not Significant	N/A	Negligible & Not Significant
6 – Transport	REP site and Main Temporary Construction Compound	Operation/ Maintenance – River Transport	River Thames	Risk of reduction in Navigational Safety due to increased traffic	Negligible & Not Significant	N/A	Negligible & Not Significant
6 - Transport	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance – Severance, driver delays, pedestrian delays and amenity, fear and intimidation,	Road users along Electrical Connection Route	See above for descriptions	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
		accidents and road safety					
7 – Air Quality	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Transport Emissions (Road)	Human receptors	Increase in road traffic emissions on human receptors from operational road movements	Negligible & Not Significant	N/A	Negligible & Not Significant
7 – Air Quality	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Transport Emissions (River)	Human receptors	Increase in river traffic emissions effecting human receptors from operational river movements	Negligible & Not Significant	N/A	Negligible & Not Significant
7 – Air Quality	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Stack Emissions	Human receptors	Operational stack emissions effecting human receptors	Negligible & Not Significant for all receptors apart from: Minor adverse & Not Significant effects at two receptors in terms of Arsenic.	N/A	Negligible & Not Significant for all receptors apart from: Minor Adverse & Not Significant effects at two receptors in

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
					Minor adverse & Not Significant effects at seven receptors in terms of Nickel		terms of Arsenic. Minor Adverse & Not Significant effects at seven receptors in terms of Nickel
7 – Air Quality	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Stack Emissions	Human receptors – Human Health Risk Assessment	Operational stack emissions affecting human health	Not Significant	N/A	Not Significant
7 – Air Quality	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Stack Emissions & AD Facility Emissions	Terrestrial biodiversity receptors	Operational Anaerobic Digestion emissions affecting biodiversity receptors	Not significant	N/A	Not Significant
7 – Air Quality	REP site and Main Temporary	Operation/ Maintenance – Dust and Odour	Human receptors	Effects to human receptors from operational dust and odour	Not Significant	N/A	Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound						
7 – Air Quality	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	Human receptors	Operational air quality effects from the electrical connection to human receptors	No Effect	N/A	No Effect
8 – Noise and Vibration	REP site and Main Temporary Construction Compound	Operation/ Maintenance - Noise	Human receptors	Increased noise levels from operational REP plant effecting human receptors.	Negligible & Not Significant	N/A	Negligible & Not Significant
8 – Noise and Vibration	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Road Traffic	Human receptors	Increased noise from operational road traffic effecting human receptors.	Negligible & Not Significant	N/A	Negligible & Not Significant
8 – Noise and Vibration	REP site and Main Temporary	Operation/ Maintenance – River Traffic	Human receptors	Increased noise from operational river traffic	Negligible & Not Significant	N/A	Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound			effecting human receptors.			
8 – Noise and Vibration	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	Human receptors	Operational noise effects from the electrical connection to human receptors	No Effect	N/A	No Effect
9 - TVIA	REP Site	Operational impact	Character Area 81: Greater Thames Estuary	Effects to character and features of townscape during operation of REP	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	REP Site	Operational impact	Character Area 112: Inner London	Effects to character and features of townscape during operation of REP	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	REP Site	Operational impact	Thames Floodplain	Effects to character and features of	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
				townscape during operation of REP			
9 - TVIA	REP Site	Operational impact	Lower Thames Floodplain	Effects to character and features of townscape during operation of REP	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	REP Site	Operational impact	Crossness Conservation Area	Effects to character and features of townscape during operation of REP	<b>Moderate</b> Adverse (Significant)	N/A	<b>Moderate</b> Adverse (Significant)
9 - TVIA	REP Site	Operational impact	Application Site	Effects to character and features of townscape during operation of REP	<b>Moderate</b> Adverse (Significant)	N/A	<b>Moderate</b> Adverse (Significant)
9 - TVIA	REP Site	Operational impact	Tree Cover and TPOs	Effects to character and features of townscape during operation of REP	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 - TVIA	REP Site	Operational impact	Designated Open Space, Landscapes and scrubland habitats	Effects to character and features of townscape during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 - TVIA	REP Site	Operational impact	Scale Grain and Massing	Effects to character and features of townscape during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 - TVIA	REP Site	Operational impact	Appearance	Effects to character and features of townscape during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 - TVIA	REP Site	Operational impact	Legibility	Effects to character and features of townscape during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 - TVIA	REP Site	Operational impact	Long distance paths, London and National Cycle	Effects to character and features of	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
			Routes, Public Rights of Way	townscape during operation of REP			
9 - TVIA	REP Site	Operational impact	SA1-West	Effects to views and visual amenity during operation of REP	<b>Moderate Beneficial</b> (Significant)	N/A	<b>Moderate Beneficial</b> (Significant)
9 - TVIA	REP Site	Operational impact	SA1-East	Effects to views and visual amenity during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 - TVIA	REP Site	Operational impact	1 – Public Right of Way southeast of REP site	Effects to views and visual amenity during operation of REP	Minor Adverse (Not Significant)	N/A	Minor Adverse (Not Significant)
9 - TVIA	REP Site	Operational impact	2 – PRoW between Crossness Nature Reserve and Thames Path	Effects to views and visual amenity during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)
9 - TVIA	REP Site	Operational impact	3 – PRoW in Crossness Nature Reserve	Effects to views and visual amenity during operation of REP	<b>Moderate Adverse</b> (Significant)	N/A	<b>Moderate Adverse</b> (Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 - TVIA	REP Site	Operational impact	4 – PRow between Crossness Nature Reserve and Eastern Road	Effects to views and visual amenity during operation of REP	Minor Beneficial (Not Significant)	N/A	Minor Beneficial (Not Significant)
9 - TVIA	REP Site	Operational impact	5 – PRow off Picardy Manorway	Effects to views and visual amenity during operation of REP	Minor Beneficial (Not Significant)	N/A	Minor Beneficial (Not Significant)
9 - TVIA	REP Site	Operational impact	6 – PRow at South Mere, west of Erith Marshes	Effects to views and visual amenity during operation of REP	<b>Moderate</b> Beneficial (Significant)	N/A	<b>Moderate</b> Beneficial (Significant)
9 - TVIA	REP Site	Operational impact	7 – Edge of Crossness Conservation Area	Effects to views and visual amenity during operation of REP	Negligible Neutral (Not Significant)	N/A	Negligible Neutral (Not Significant)
9 - TVIA	REP Site	Operational impact	8 – Lesnes Abbey	Effects to views and visual amenity during operation of REP	Negligible Neutral (Not Significant)	N/A	Negligible Neutral (Not Significant)

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
9 - TVIA	REP Site	Operational impact	9 – Halt Robin Road and north western corner of Franks Park near to Wood Side School	Effects to views and visual amenity during operation of REP	Minor Beneficial (Not Significant)	N/A	Minor Beneficial (Not Significant)
9 - TVIA	REP Site	Operational impact	10 – Ferry Lane, between Frog Island and Jetty	Effects to views and visual amenity during operation of REP	Negligible Neutral (Not Significant)	N/A	Negligible Neutral (Not Significant)
9 - TVIA	REP Site	Operational impact	11 – PRoW west of Horse Shoe Corner	Effects to views and visual amenity during operation of REP	<b>Moderate</b> Beneficial (Significant)	N/A	<b>Moderate</b> Beneficial (Significant)
9 - TVIA	REP Site	Operational impact	12 – Thameside Walk / Thames Path National Trail, northwest of Thamesmere Leisure Centre	Effects to views and visual amenity during operation of REP	No Change	N/A	No Change
9 - TVIA	REP Site	Operational impact	13 – Roundabout at junction of A202, A2016,	Effects to views and visual amenity	No Change	N/A	No Change

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
			Walnut Tree Road and Bexley Road	during operation of REP			
9 - TVIA	REP Site	Operational impact	14 – Barnes Cray	Effects to views and visual amenity during operation of REP	No Change	N/A	No Change
9 - TVIA	REP Site	Operational impact	15 – Bridleway west of Littlebrook Nature Park	Effects to views and visual amenity during operation of REP	Negligible Adverse (Not Significant)	N/A	Negligible Adverse (Not Significant)
9 - TVIA	REP Site	Operational impact	16 – Eaglesfield Recreation Ground	Effects to views and visual amenity during operation of REP	No Change	N/A	No Change
9 - TVIA	Electrical Connection	Operational impact	All townscape and visual receptors identified above	Townscape and visual effects during operational of electrical connection	No Effect	N/A	No Effect
10 – Historic Environment	REP site and Main Temporary	Operation/ Maintenance	Archaeological and Geoarchaeological assets	Effects to buried archaeological or geological assets during operation	No Effect	N/A	No Effect

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound						
10 – Historic Environment	REP site and Main Temporary Construction Compound	Operation/ Maintenance	Conservation area, scheduled monument and listed / locally listed assets	Visual effects on setting of assets	Negligible – Minor adverse & Not Significant	N/A	Negligible – Minor adverse & Not Significant
10 – Historic Environment	REP site and Main Temporary Construction Compound	Operation/ Maintenance	Lesnes Abbey (NHLE 1002025, 1359415)	Visual effects on setting of assets	Minor adverse and Not Significant	N/A	Minor Adverse and Not Significant
10 – Historic Environment	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	Buried archaeological assets	Visual effects on setting of assets	No Effect	N/A	No Effect
10 – Historic Environment	Electrical Connection and Cable Route Temporary	Operation/ Maintenance	Statutory designations (Listed Buildings, Conservation Areas, Scheduled	Visual effects on setting of assets	No Effect	N/A	No Effect

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound		Ancient Monuments and World Heritage Sites)				
10 – Historic Environment	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	Setting of designated and non-designated built heritage assets	Visual effects on setting of assets	No Effect	N/A	No Effect
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - (Energy Recovery Facility) deposition of compounds	Crossness LNR, Inner Thames Marshes/Rainham Marshes LNR and Ingrebourne Marshes SSSI	Effects from deposition of compounds from operation of REP (Energy Recovery Facility)	Effects at the National level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the National level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - (AD facility emissions), deposition of compounds	Crossness LNR and Erith Marshes SINC	Effects from deposition of compounds from operation of REP (Anaerobic Digestion facility)	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not	N/A	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not



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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
					Significant in EIA terms		Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - (Shading)	Crossness LNR and Erith Marshes SINC	Effects due to shading from the operational development	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - (Light spill)	Crossness LNR, Belvedere Dykes SINC, River Thames and Tidal Tributaries SINC, and Erith Marshes SINC	Effects due to light spill from the operational development	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the County/ Metropolitan and Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary	Operation/ Maintenance - (Increase in	Crossness LNR and Erith Marshes SINC	Effects due to potential change in surface water runoff and subsequent	Effects at the County/ Metropolitan and Local level are Not Significant.	N/A	Effects at the County/ Metropolitan and Local level are Not

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound	Impermeable Area)		hydrological connectivity with sites of ecological interest	This is Not Significant in EIA terms		Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - (Energy Recovery Facility [ERF])	Habitats - Non designated	Effects from deposition of compounds from operation of REP	Effects are Not Significant. This is Not Significant in EIA terms	N/A	Effects are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - (displacement)	Wintering Birds	Effects from operational noise to wintering birds	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance - Disturbance from lighting and noise	Bats	Effects to bats from operational lighting and noise	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
11 – Terrestrial Biodiversity	REP site and Main Temporary Construction Compound	Operation/ Maintenance – Disturbance from noise	Breeding birds	Effects to breeding birds from operational noise	Effects at the Local level are Not Significant. This is Not Significant in EIA terms	N/A	Effects at the Local level are Not Significant. This is Not Significant in EIA terms
11 – Terrestrial Biodiversity	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	All identified receptors	Effects from operation of the Electrical Connection	No Effect	N/A	No Effect
12 – Hydrology, Flood Risk and Water Resources	REP site and Main Temporary Construction Compound	Operation/ Maintenance - increase in the impermeable area within the catchment of the Great Breach Dyke	Surface water drainage regime	Increase in surface water runoff to the dyke, and associated flood risk	Negligible & Not Significant	N/A	Negligible & Not Significant
12 – Hydrology, Flood Risk	REP site and Main Temporary	Operation/ Maintenance – contamination of	Surface water drainage regime	Reduction in water quality and compliance with	Negligible & Not Significant	N/A	Negligible & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
and Water Resources	Construction Compound	surface water entering Great Breach Dyke		Water Framework Directive (WFD)			
12 – Hydrology, Flood Risk and Water Resources	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	All identified receptors	Effects from operation of the Electrical Connection	No Effect	N/A	No Effect
13 – Ground Conditions	REP site	Operation/ Maintenance - Asbestos	Human Health – Future users	Exposure to asbestos	<b>Major/ Substantial adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Operation/ Maintenance – Ground gas	Human Health – Future users	Accumulation of ground gas	<b>Major/ Substantial adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Operation/ Maintenance - Asbestos	Human Health – Future users	Exposure to asbestos	<b>Moderate adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
13 – Ground Conditions	REP site	Operation/ Maintenance – Ground gas	Human Health – Future users	Accumulation of ground gas	<b>Moderate adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Operation/ Maintenance – Contamination	Surface Water	Release of contamination	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Operation/ Maintenance – Ground gas	Property - Building	Accumulation of ground gas	<b>Moderate adverse &amp; Significant</b>	Outline Remedial Strategy (ORS)	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Operation/ Maintenance - Contamination	Property - Animal or Crop	Exposure to contamination	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	REP site	Operation/ Maintenance - Contamination	Ecological Systems	Exposure to contamination	Negligible/No Effect & Not Significant	N/A	Negligible/No Effect & Not Significant
13 – Ground Conditions	Electrical Connection and Cable Route Temporary	Operation/ Maintenance	All identified receptors	Exposure to contamination, ground gas, dust and asbestos	No effect	N/A	No Effect

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compound						
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Operation/ Maintenance	Labour Market - Local area study area	New employment opportunities	Slight Beneficial & Not Significant	The Applicant has a strong preference to recruit locally wherever possible	Slight Beneficial & Not Significant
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Operation/ Maintenance	Labour Market - Wider area and Wider region study area	New employment opportunities	Slight/ <b>Moderate Beneficial &amp; Significant</b>	The Applicant has a strong preference to recruit locally wherever possible	Slight/ <b>Moderate Beneficial &amp; Significant</b>
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Operation/ Maintenance	Key Business Sector – Waste management	Benefit to the waste sector	<b>Moderate Beneficial &amp; Significant</b>	N/A	<b>Moderate Beneficial &amp; Significant</b>
14 – Socio-economics	REP site and Main Temporary	Operation/ Maintenance	Key Business Sector – Energy generation	Benefit to the energy sector	Slight Beneficial & Not Significant	N/A	Slight Beneficial & Not Significant

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ES Chapter	REP Component	Impact	Receptor	Description of Potential Effect	Initial Assessment	Further Mitigation	Residual Effect
	Construction Compounds						
14 – Socio-economics	REP site and Main Temporary Construction Compounds	Operation/ Maintenance	Community Infrastructure	Pressure on existing community infrastructure	Negligible Adverse & Not Significant	N/A	Negligible Adverse & Not Significant
14 – Socio-economics	Electrical Connection and Cable Route Temporary Construction Compound	Operation/ Maintenance	All identified receptors	New employment opportunities, benefits to the relevant sectors, pressure on existing community infrastructure	No Effect	N/A	No effect

### 16.3 In-Combination Assessment

#### Methodology

- 16.3.1 The methodology for assessing in-combination effects involves the identification of impact interactions associated with the construction, operation (including maintenance) and decommissioning phases of the Proposed Development upon one or more receptor. This is undertaken using a qualitative appraisal process.
- 16.3.2 Each ‘topic assessment’ has considered the construction, operation (including maintenance) and decommissioning of the Proposed Development within a set of development parameters which means that the assessment provides a reasonable worst-case scenario. Each assessment has therefore been carried out on a conservative basis and the effects reported in those topic chapters reflect this approach. Mitigation measures are identified in each topic chapter and have been used to derive residual effects (as described in Section 16.2) which have been used to inform this qualitative assessment.
- 16.3.3 A receptor receiving multiple effects which have been individually assessed as being above the level of perceptibility (i.e. Minor or above), could still be affected significantly due to the combination of one or more other perceptible effects. For this reason, this in-combination assessment considers all effects which have been assessed as Minor (which, taken individually, is not significant in EIA terms), Moderate, Major or Substantial, based on the significance criteria in **Table 4.2, Chapter 4**. It is however noted that for some environmental topics, significance criteria differ depending on the topic assessment and conditions encountered at the Application Site. Section 5 in each topic assessment chapter, **Chapters 6 – 14**, identifies the assessment methodology relevant to that EIA topic.
- 16.3.4 The interaction of some environmental effects has already been considered within **Chapters 6 – 14** where relevant. For example, effects from Air Quality, Noise and Vibration and Lighting have been considered within the Terrestrial Biodiversity assessment as all of these could affect biodiversity receptors. The assessments within Historic Environment have been linked to those with Air Quality, Noise and Townscape and Visual Impact.
- 16.3.5 It is to be noted that **Appendix K.1** (Health Impact Assessment) considers the assessment conclusions from **Chapters 6 – 14** upon health and wellbeing. **Appendix K.1** follows a separate methodology and has a separate purpose to the assessment of in-combination effects identified within this Chapter. Therefore, this Chapter and **Appendix K.1** should be treated separately.
- 16.3.6 The approach adopted for this in-combination assessment has been to examine in turn each residual effect presented for each individual receptor within the EIA. It is then considered if multiple effects are experienced at that individual receptor and if so, using professional judgement, whether this would give rise to a significant in-combination effect to that receptor (e.g. road users/labour market). It is noted that individual receptors can fall within the same receptor group (e.g.



road users and the labour market both fall within the receptor group ‘Humans’). It is therefore then considered whether the assessed in-combination effects to individual receptors within the same receptor group would result in significant in-combination effects to that receptor group. **Table 16.3** sets out the findings of this analysis.

- 16.3.7 It is noted that the Crossness Conservation Area is identified as being affected by different assessments, however each of these assessments incorporate this location in a fundamentally different way. **Chapter 9** considers effects to this area as a townscape receptor in its own right, whilst also considering the effect on views enjoyed by human receptors from this location. **Chapter 10** also considers effects on the significance of this location as a heritage asset.
- 16.3.8 For this reason, the assessments identify effects to different factions of the Crossness Conservation Area, rather than identifying multiple effects to the same receptor. However, the different effects identified within ES chapters to each faction of the Crossness Conservation Area are included in **Table 16.3**, forming part of the overall in-combination effects assessment.
- 16.3.9 **Chapter 9** considers both townscape and visual impacts which are different assessments. Effects to visual receptors form one part of the in-combination assessment to ‘Human Receptors’ overall. The assessment of effects to each identified townscape element, combine to result in the assessment of in-combination effects to the townscape of the Application Site as a whole.

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Table 16.3 – In-combination effects

Receptor Group	Specific Receptor	Effect	Location of assessment within ES	Summary of In-combination Effects to Specific Receptors	Summary of In-combination Effects to Receptor Groups
Historic Environment	Crossness Conservation Area	Negligible - Minor Adverse effect to the significance of this asset during both the Construction/Decommissioning, and Operational/Maintenance phases	<b>Chapter 10</b>	Negligible to Minor Adverse effects would be experienced by this receptor over the course of the two assessment periods. It is not considered that the combination of two Minor Adverse effects would result in an increase in overall effect to this receptor. Therefore, there are no new or different effects to those identified within <b>Chapter 10</b> of the ES.	Overall, it is not considered that the combined effects to the Crossness Conservation Area, Geo-archaeological deposits and Lesnes Abbey would result in a new significant in-combination effect to the Historic Environment.
	Geo-archaeological deposits	Minor Adverse effect during construction works	<b>Chapter 10</b>	Individually, there is only a single effect to Geo-archaeological deposits which would occur during construction, and therefore there would not be in-combination effects to this specific receptor. However, it is to be considered within overall in-combination effects to the Historic Environment.	

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	Lesnes Abbey (BHLE 1002025, 1359415)	Minor Adverse visual (indirect) effect to the significance of this assets during both the Construction/Decommissioning, and Operational/Maintenance phases.	<b>Chapter 10</b>	A Minor Adverse effect would be experienced by this receptor over the course of the two assessment periods. It is not considered that the combination of two Minor Adverse effects would result in an increase in overall effect to this receptor. Therefore, there are no new or different effects to those identified within <b>Chapter 10</b> .	
Human Receptors	Air Quality Receptors	Minor Adverse effect during the Operational/Maintenance phase in relation to Nickel and Arsenic	<b>Chapter 7</b>	<p>Receptors R7, R8A, R8B, R18A, R18B, R20A and R20B experience a Minor Adverse effect from operational Nickel, while receptors R8A and R8B experience a Minor Adverse effect from Arsenic.</p> <p>Receptors R8A and R8B experience a Minor Adverse effect from both Nickel and Arsenic. However, when combined, effects to these receptors are considered to remain Minor overall. Therefore, there are no new or</p>	<p>It is noted that a road user could be a member of the local Labour market. However, the combination of these beneficial and adverse effects is not considered to result in a new significant in-combination effect.</p> <p><b>Chapter 6</b> has identified a Minor Adverse effect to pedestrian delay and amenity during the construction of the Electrical Connection, due to one link receiving a Small magnitude</p>

				different effects to those identified within <b>Chapter 7</b> .	of change (A206 Bob Dunn Way, north of A2026 Burhan Road Roundabout). The closest visual receptor to this location (Location 14) as identified in <b>Chapter 9</b> was assessed as receiving 'No Change' during the temporary construction phase, thus is it not considered that human receptors in this location would receive an in-combination effect from visual impact and pedestrian delay and amenity.
Labour Market	<p>Slight/Moderate beneficial effect during construction.</p> <p>Slight Beneficial effect to the Local area study area during operation.</p> <p>Slight/Moderate Beneficial effect to the Wider area, and Wider region study area during operation.</p>	<b>Chapter 14</b>		The assessment of effects to the Labour Market within Chapter 14 consider both net and gross effects. Combining the beneficial effects to the varying study areas from both the construction and operational phases is not considered to result in new or different significant effects to those identified in <b>Chapter 14</b> .	Air Quality Receptors R8A and R8B ( <b>Chapter 7</b> ) are both located to the north of the River Thames, receiving Minor effects from Nickel and Arsenic. The closest visual receptor location as identified in <b>Chapter 9</b> is location 10, receiving a Moderate Adverse effect during the construction of REP. It is not considered
Local accommodation providers	Slight/Moderate Beneficial effect to local accommodation providers during the construction phase	<b>Chapter 14</b>		Individually, there is only a single effect to local accommodation providers which would occur during construction, and therefore there would not be in-combination effects to this specific receptor. However, it	

				is to be considered within overall in-combination effects to Human Receptors.	that combining a temporary construction Moderate visual effect to an operational Minor Air Quality effect would result in new or different significant effects.
	Road Users	<p>Minor Adverse effects during construction to 206/A2016/Bexley Road roundabout.</p> <p>Minor Adverse effects during construction to pedestrian delay and amenity</p> <p>Minor Adverse effects to Norman Road during operation.</p>	<b>Chapter 6</b>	<p>Minor Adverse effects have been identified to a junction and pedestrian delay and amenity during the temporary construction phase. Given the temporary nature of these effects, and that they are Minor, it is not considered that when combined, effects to the affected road network would result in an increase in overall effects to road users.</p> <p>There would be a Minor Adverse effect to Norman Road during both the construction and operational phases. However, given that this road is used predominantly for accessing the existing Riverside Resource Recovery Facility (RRRF) and the Proposed Development, the combined effect over construction and</p>	<p>Beneficial effects would be realised to both the Labour Market and local accommodation providers during construction, however this is not considered to result in new or different in-combination effects to human receptors.</p> <p>In-combination effects to Air Quality receptors would take place during the operational phase of the Proposed Development (not resulting in new or different significant effects). However, it is not considered that the combination of these effects, with operational effects to Norman Road, and operational effects to the</p>

				<p>operation would not result in an increase to overall effects. Therefore, there are no new or different effects to those identified within <b>Chapter 6</b>.</p>	<p>local Labour market would result in a new significant in-combination operational effect to human receptors.</p>
	Visual receptors	<p>Visual receptors identified receive a combination of Beneficial and Adverse effects, ranging from Moderate (significant) to Minor (not significant). Effects below Minor are not considered in Chapter 16.</p>	<p><b>Chapter 9</b></p>	<p>Where a receptor is affected by both construction and operational works, it is not considered that new or different significant effects to each receptor would be identified. This is due to the temporary nature of identified construction works not altering the overall effect.</p> <p>Where visual receptors would be affected by both construction works at the REP site and construction of the Electrical Connection, it is not considered that new or different significant effects to those identified in <b>Chapter 9</b> are likely.</p> <p>Multiple effects could be received by a PRoW users,</p>	<p>Overall, it is not considered that the combined effects to air quality receptors, labour market, local accommodation providers, road users or visual receptors would result in a new significant in-combination effect to Human receptors.</p>

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				<p>walking around several footpaths around the REP site during the temporary construction phase, as identified by assessments in <b>Chapter 9</b>. However, each effect would be experienced in turn as the user moves around the site, at no point would each identified effect be experience by a receptor at the same time.</p> <p>During the construction phase the temporary nature of effect, and existing similar views already experienced, would not result in new or different significant effects. During operation, the mix of Beneficial and Adverse effects identified are not considered to result in new or different significant effects.</p>	
Key Business Sector	Construction Sector	Slight Beneficial effect during construction	<b>Chapter 14</b>	<p>Individually, there is only a single effect to the construction sector therefore there would not be in-combination effects to this specific receptor. However, it</p>	<p>Overall, it is not considered that the combined effects to individual sectors would result in a new significant in-</p>

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				is to be considered within overall in-combination effects to the Business Sector.	combination effect to the overall Business Sector.
	Waste Sector	Moderate Beneficial effect during operation	<b>Chapter 14</b>	Individually, there is only a single effect to the waste sector therefore there would not be in-combination effects to this specific receptor. However, it is to be considered within overall in-combination effects to the Business Sector.	
	Energy Sector	Slight Beneficial effect during operation	<b>Chapter 14</b>	Individually, there is only a single effect to the energy sector therefore there would not be in-combination effects to this specific receptor. However, it is to be considered within overall in-combination effects to the Business Sector.	
Townscape	Character Area 81/112, Lower/Thames Floodplain, Crossness Conservation Area, Application site, Tree Cover	Townscape receptors were identified as receiving a range of Moderate (significant) to Minor (not significant). Effects below Minor	<b>Chapter 9</b>	Where a receptor is affected by both construction and operational works, it is not considered that new or different significant effects to each receptor would be identified. This is due to the temporary nature of identified	Overall, it is not considered that the combined effects to individual townscape receptors would result in a new significant in-combination effect to the



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	<p>and TPOs, Designated Open Space, Landscapes and scrubland habitats, Scale Grain and Massing, Appearance, Legibility and Long distance paths, London and National Cycle routes and PRowS.</p>	<p>are not considered in Chapter 16.</p>		<p>construction works not altering the overall effect.</p> <p>Where townscape receptors are affected by both construction works at the REP site and construction of the Electrical Connection, it is not considered that new or different significant effects to those identified in <b>Chapter 9</b> are likely.</p>	<p>overall townscape of the Application Site.</p>
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## 16.4 Summary

16.4.1 This Chapter summarises the findings of the assessments presented in **Chapters 6 – 14** and considers the potential for in-combination effects to arise to specific receptors, and then receptor groups from any identified perceptible residual beneficial or adverse effects. Following the consideration of the potential for in-combination effects to arise, no new or different likely significant in-combination effects have been identified above those reported in **Chapters 6-14**.