CONTENTS

TABLES

18.0 SUMMARY OF SIGNIFICANT EFFECTS

18.1 Introduction

18.1.1 Chapters 7 to 17 of this Environmental Statement (ES) have considered the potential environmental impacts and effects of the Proposed Development. This chapter of the ES provides a summary of those adverse and beneficial environmental effects that are considered to be significant (i.e. moderate and major effects).

18.2 Significant Environmental Effects and Proposed Mitigation Measures

18.2.1 Table 18.1 summarises the significant environmental effects of the Proposed Development that have been identified, following implementation of the embedded mitigation or impact avoidance measures included in the design of the Proposed Development (as detailed in Chapters 7 to 17, where relevant). Table 18.1 also summarises any additional mitigation measures that have been identified in the technical assessments contained in the ES. Cumulative and combined effects are included separately at the end of the table.

18.2.2 As outlined in Chapter 2: Assessment Methodology, for the purposes of this ES an effect is considered to be 'significant' if it is assessed to be moderate (adverse or beneficial) or major (adverse or beneficial). Minor and negligible effects are only referenced in this chapter where a 'significant' effect has been reduced to a 'not significant' effect following mitigation.

18.2.3 To provide further clarification on the nature of the effects, each has been identified as:

- short term (St) – effects occurring only over a short period of time, e.g. an effect that only lasts for the duration of the construction period, or one that lasts for only part of the operational phase;
- medium term (Mt) – effects occurring for the duration of the development's operation, but which cease when operations cease; or
- long term (Lt) – effects occurring beyond the operation of the proposed scheme, for example the permanent loss of semi-improved grassland associated with the Proposed Development;
- temporary (T) – effects that are not permanent because the effect would no longer occur if the impact was removed within the relevant timescale (for example the visual amenity impact of construction structures would be described as St, T as the impact goes when the structures are removed);
- permanent (P) – effects that are permanent and cannot be readily reversed within the relevant timescale (for example an environmental feature that is lost and cannot be replaced until after decommissioning would be Mt, P. In the event that it could not be replaced at all, this would be Lt, P); and
- direct (D) – effects that result from a direct impact, for example, the loss of ecological habitat; or
- indirect (In) – also known as secondary effects, effects that result indirectly, for example, increased traffic could indirectly impact on air quality.

Table 18.1: Summary of significant effects

DEVELOPMENT STAGE	ENVIRONMENTAL IMPACT (FOLLOWING DEVELOPMENT DESIGN AND IMPACT AVOIDANCE MEASURES).	CLASSIFICATION OF EFFECT PRIOR TO MITIGATION	MITIGATION/ ENHANCEMENT (IF IDENTIFIED)	CLASSIFICATION OF RESIDUAL EFFECT AFTER MITIGATION	NATURE OF EFFECT(S) (LT/ MT/ ST AND P/ T AND D/ IN)
Chapter 7: Air Quality					
Construction	No significant effects identified				
Operation	No significant effects identified				
Decommissioning	No significant effects identified				
Chapter 8: Noise and Vibration					
Construction	(Noise from drop-hammer piling on Receptor 4 (field south of the Site) discussed in Chapter 10: Ecology and Nature Conservation summary below)	(Refer to Chapter 10: Ecology and Nature Conservation summary below.)	(Refer to Chapter 10: Ecology and Nature Conservation summary below.)	Refer to Chapter 10: Ecology and Nature Conservation summary below.	(Refer to Chapter 10: Ecology and Nature Conservation summary below.)
Operation	No significant effects identified.				
Decommissioning	No significant effects identified				
Chapter 9: Traffic and Transport					
Construction	No significant effects identified				
Operation	No significant effects identified				
Decommissioning	No significant effects identified				

DEVELOPMENT STAGE	ENVIRONMENTAL IMPACT (FOLLOWING DEVELOPMENT DESIGN AND IMPACT AVOIDANCE MEASURES).	CLASSIFICATION OF EFFECT PRIOR TO MITIGATION	MITIGATION/ ENHANCEMENT (IF IDENTIFIED)	CLASSIFICATION OF RESIDUAL EFFECT AFTER MITIGATION	NATURE OF EFFECT(S) (LT/ MT/ ST AND P/ T AND D/ IN)
Chapter 10: Ecology					
Construction	Disturbance of waterbirds using field to south of Site due to noise/ vibration from drop-hammer piling	Moderate adverse (significant) if piling works takes place in the winter months (September to March inclusive).	Measures not fixed at this stage but commitment to implement appropriate mitigation. These potentially include: • alternative quieter piling methods e.g. Continuous Flight Auger (CFA) piling to reduce noise, which could be applied at any time of year; and/or • seasonal restrictions to avoid impacts by not using drop hammer piling for two hours either side of high tide between September and March (inclusive)	Minor adverse (not significant)	St/T/D

DEVELOPMENT STAGE	ENVIRONMENTAL IMPACT (FOLLOWING DEVELOPMENT DESIGN AND IMPACT AVOIDANCE MEASURES).	CLASSIFICATION OF EFFECT PRIOR TO MITIGATION	MITIGATION/ ENHANCEMENT (IF IDENTIFIED)	CLASSIFICATION OF RESIDUAL EFFECT AFTER MITIGATION	NATURE OF EFFECT(S) (LT/ MT/ ST AND P/ T AND D/ IN)
Construction	Loss of 6.7 ha of semi-improved grassland evaluated to be of District nature conservation value.	Moderate adverse (significant)	Creation and appropriate management of 1 ha species-rich grassland within the Site with higher ecological value than the habitat lost.	Minor adverse (not significant)	Lt/P/D
Operation	No significant effects identified				
Decommissioning	No significant effects identified				
Chapter 11: Landscape and Visual Amenity					
Construction	Impact on visual amenity footpath users at Viewpoint 9 during construction activities	Moderate adverse (significant)	None	Moderate adverse (significant)	St/T/D
Operation	Impact on visual amenity footpath users at Viewpoint 9 during operation.	Moderate adverse (significant)	None	Moderate adverse (significant)	Lt/P/D
Decommissioning	Impact on visual amenity footpath users at Viewpoint 9 during decommissioning activities	Moderate adverse (significant)	None	Moderate adverse (significant)	St/P/D

DEVELOPMENT STAGE	ENVIRONMENTAL IMPACT (FOLLOWING DEVELOPMENT DESIGN AND IMPACT AVOIDANCE MEASURES).	CLASSIFICATION OF EFFECT PRIOR TO MITIGATION	MITIGATION/ ENHANCEMENT (IF IDENTIFIED)	CLASSIFICATION OF RESIDUAL EFFECT AFTER MITIGATION	NATURE OF EFFECT(S) (LT/ MT/ ST AND P/ T AND D/ IN)
Chapter 12: Geology, Hydrology and Contaminated Land					
Construction	No significant effects identified				
Operation	No significant effects identified				
Decommissioning	No significant effects identified				
Chapter 13: Cultural Heritage					
Construction	No significant effects identified				
Operation	No significant effects identified				
Decommissioning	No significant effects identified				
Chapter 14: Water Resources, Flood Risk and Drainage					
Construction	Change to the impermeable area within the Site, and associated changes to surface water flows resulting in adverse effects on flood risk and drainage	Moderate adverse (significant)	Directing runoff to an attenuation pond with controlled outfall, to limit discharge into the drainage network to greenfield rates.	Minor adverse (not significant)	St/T/D
Operation	Change to the impermeable area within the Site, and associated changes to surface water	Moderate adverse (significant)	Directing runoff to an attenuation pond with controlled outfall, to limit discharge into the drainage network to	Minor adverse (not significant)	Lt/P/D

DEVELOPMENT STAGE	ENVIRONMENTAL IMPACT (FOLLOWING DEVELOPMENT DESIGN AND IMPACT AVOIDANCE MEASURES).	CLASSIFICATION OF EFFECT PRIOR TO MITIGATION	MITIGATION/ ENHANCEMENT (IF IDENTIFIED)	CLASSIFICATION OF RESIDUAL EFFECT AFTER MITIGATION	NATURE OF EFFECT(S) (LT/ MT/ ST AND P/ T AND D/ IN)
	flows resulting in adverse effects on flood risk and drainage		greenfield rates.		
Decommissioning	No significant effects identified				
Chapter 15: Socio-Economics					
Construction	Net employment generated during construction.	Major beneficial (significant)	None required but a careers fair and Meet the Buyer event will be held to give opportunities to local residents and businesses	Major beneficial (significant)	St/P/D
Operation	Net employment generated during operation.	Moderate beneficial (significant)	None required but a careers fair and Meet the Buyer event will be held to give opportunities to local residents and businesses	Moderate beneficial (significant)	Lt/P/D
Decommissioning	No significant effects identified				
Chapter 16: Waste					
Construction	No significant effects identified				
Operation	No significant effects identified				
Decommissioning	No significant effects identified				

DEVELOPMENT STAGE	ENVIRONMENTAL IMPACT (FOLLOWING DEVELOPMENT DESIGN AND IMPACT AVOIDANCE MEASURES).	CLASSIFICATION OF EFFECT PRIOR TO MITIGATION	MITIGATION/ ENHANCEMENT (IF IDENTIFIED)	CLASSIFICATION OF RESIDUAL EFFECT AFTER MITIGATION	NATURE OF EFFECT(S) (LT/ MT/ ST AND P/ T AND D/ IN)
Chapter 17: Cumulative and Combined Effects					
Construction	Cumulative impact on visual amenity footpath users remains at Viewpoint 9 during construction activities	Moderate adverse (significant) (same effects as the Proposed Development in isolation)	None	Moderate adverse (significant) (same effect as the Proposed Development in isolation)	St/T/D
Operation	Cumulative impact on visual amenity footpath users remains at Viewpoint 9 during operational activities	Moderate adverse (significant) (same effect as the Proposed Development in isolation)	None	Moderate adverse (significant) (same effect as the Proposed Development in isolation)	Lt/P/D
Decommissioning	Cumulative impact on visual amenity footpath users remains at Viewpoint 9 during decommissioning activities	Moderate adverse (significant) (same effect as the Proposed Development in isolation)	None	Moderate adverse (significant) (same effect as the Proposed Development in isolation)	Lt/P/D

Note: Lt = long term, Mt = medium term, St = short term, P = permanent, T = temporary, D = direct and In = indirect.