RETFORD CIRCULAR ECONOMY PROJECT

TECHNICAL APPENDIX 7.7 VISUAL ANALYSIS SURVEY

FEBRUARY 2023

APPENDIX 7.7: VISUAL ANALYSIS TABLES

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
VISUAL EFFECTS (Refer to **Figures 7.4, 7.5, 7.8 and 7.9: Volume 2 of this ES**)				
Viewpoints 1-12				
Viewpoint 1: Chainbridge Lane, Lound (800 m, N)				
Construction	Not applicable	Prow user: High sensitivity Residential receptor: High sensitivity/ Neutral magnitude of change	Not applicable	No effects during the initial construction phase
Operation	Traffic movements, conveyor operation, and processing would introduce activity	Prow user: High sensitivity Residential receptor: High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Negligible adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved wider landscape context	Prow user: High sensitivity Residential receptor: High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Viewpoint 2: Chainbridge Lane (960 m, NE)				
Construction	Not applicable	Prow user: High sensitivity /Neutral (no change)	Not applicable	No effects during the initial construction phase
Operation	Traffic movements, conveyor operation, and processing would introduce activity	Prow user: High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Negligible adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved wider landscape context	Prow user: High sensitivity	Progressive restoration and enhancement	Negligible beneficial

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
		/ Negligible magnitude of change		
Viewpoint 3: PRoW near Tiln Grange and Whitehouse Farm (770 m, E)				
Construction	Additional traffic, and direct effects such as construction lighting and activity	Prow user: High sensitivity Residential receptor: High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy.	Negligible adverse, temporary and reversible
Operation	As the progressive extraction and restoration proceeds the most pronounced effects would occur during the working of the phase adjacent to the southern boundary (Phases LR P1-P4 and HR P6) although the embankment and a line of vegetation would be retained as a visual screen.	Prow user: High sensitivity Residential receptor: High sensitivity/ Negligible magnitude of change	Retention of vegetation along the southern boundary Specified working hours. Sensitive lighting policy and progressive restoration	Negligible adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved setting from additional and new planting to Site perimeter	Prow user: High sensitivity Residential receptor: High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Viewpoint 4: Idle Valley Nature Reserve Riverside Discovery Walk (230 m, S)				
Construction	Additional traffic, and direct effects such as construction lighting and increased activity to the baseline conditions.	Recreational receptor: High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy.	Negligible adverse, temporary and reversible
Operation	As the progressive extraction and restoration proceeds the most pronounced effects would occur during the working of the phase adjacent to the southern boundary (Phases LR P1-P4 and HR P6) although buffers would be instigated and the embankment and a line of vegetation would	Recreational receptor: High sensitivity/ Negligible magnitude of change	Retention of vegetation along the southern boundary Specified working hours. Sensitive lighting policy and progressive restoration	Negligible adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	be retained as a visual screen			
Restoration (Yr 15-20 post-restoration)	Improved setting from additional and new planting to Site perimeter	Recreational receptor: High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Viewpoint 5: Idle Valley Nature Reserve Woodland Walk (80 m, S)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity the baseline conditions.	Recreational receptor: High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy.	Negligible adverse, temporary and reversible
Operation	As the progressive extraction and restoration proceeds the most pronounced effects would occur during the working of the phase adjacent to the southern boundary (Phases LR P1-P4 and HR P6) although buffers would be instigated and a line of vegetation would be retained	Recreational receptor: High sensitivity/ Negligible magnitude of change	Retention of vegetation along the southern boundary Specified working hours. Sensitive lighting policy and progressive restoration	Negligible adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved setting from additional and new planting to Site perimeter	Recreational receptor: High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Viewpoint 6: Idle Valley Nature Reserve (260 m, S)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity	Recreational receptor: High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy.	Negligible adverse, temporary and reversible
Operation	As the progressive extraction and restoration proceeds the most pronounced effects would occur during the working of the phase adjacent to the southern boundary (Phases LR P1-P4 and HR P6) although buffers	Recreational receptor: High sensitivity/ Negligible magnitude of change	Retention of vegetation along the southern boundary Specified working hours. Sensitive lighting policy	Negligible adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	would be instigated and a line of vegetation would be retained		and progressive restoration	
Restoration (Yr 15-20 post-restoration)	Improved setting from additional and new planting to Site perimeter	Recreational receptor: High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Viewpoint 7: Sutton Lane North of Cross Road Farm (360 m, SW)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity. Removal of vegetation to facilitate the new and widened vehicular access would be noticeable and would reveal potential views into Site	Residential receptor: High sensitivity Road user: Medium sensitivity/ Small magnitude of change	Specified working hours. Sensitive lighting policy. Retention of some perimeter planting and replacement planting at key positions	Minor-moderate adverse for Cross Road Farm (R3) and Minor adverse for road user. Both effects would be temporary and reversible
Operation	Traffic movements, conveyor operation and processing activities. Removal of vegetation to facilitate the new and widened vehicular access would be noticeable and would reveal potential views into Site from upper-storeys	Residential receptor: High sensitivity Road user: Medium sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree and hedge planting along a new boundary fence-line in Area B	Minor-moderate adverse for Cross Road Farm and Bridge Lodge (R3) and Minor adverse for road user. Both identified effects would be temporary and reversible
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	Residential receptor: High sensitivity Road user: Medium sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Viewpoint 8: PRoW at end of Town Street, Sutton-cum-Lound (620 m, W)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity	Prow User: High sensitivity/ Negligible	High sensitivity/ Negligible magnitude of change	Negligible adverse and temporary

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
		magnitude of change		
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Minor-moderate adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor – moderate beneficial
Viewpoint 9: PRoW South of Bellmoor Farm (On Western Site Boundary)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity	PRoW user and residential receptor: High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse, temporary and reversible
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of HR P5 and HRP6. The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	PRoW user and residential receptor: High sensitivity/ Medium magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of some perimeter planting	Moderate-major adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting and more naturalistic landform to embankment	PRoW user and residential receptor: High sensitivity	Progressive restoration and enhancement	Minor-moderate beneficial

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
		/ Small magnitude of change		
Viewpoint 10: PRoW at Sutton Lakes (260 m, W)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity.	PRoW user High sensitivity and recreational receptor: Medium sensitivity / Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse, temporary and reversible
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of HR P4 and HR P5. The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	PRoW user: High sensitivity Recreational receptor: Medium sensitivity / Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of embankment until restoration of landform	Minor-moderate adverse for PRoW user and Minor adverse for road user and for recreationists. Effects would be temporary and reversible
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting and more naturalistic landform to embankment	PRoW user High sensitivity and recreational receptor: Medium sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial
Viewpoint 11: Lound Low Road at Wetland Lakes (On Northern Site Boundary)				
Construction	Additional traffic, and direct effects such as construction lighting, and activity	Residential receptor and PRoW user: High sensitivity Road user: Medium sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse, temporary and reversible
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the	Residential receptor and PRoW user: High sensitivity	Specified working hours and low impact lighting	Moderate-major adverse for PRoW user, and Moderate

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	Road user: Medium sensitivity/ Medium magnitude of change	policy using directional lighting Retention of as much vegetation as possible and replacement tree planting.	adverse for road user. Both effects would be temporary and reversible
Restoration (Yr 15-20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	PRoW user: High sensitivity Road user: Medium sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Up to Minor-moderate beneficial
Viewpoint 12: Town Street by Yew Tree Farm (410 m, N)				
Construction	Indirect effects from additional traffic, and direct effects such as construction lighting, and activity	Residential receptor: High sensitivity Road user: Medium sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	Residential receptor: High sensitivity Road user: Medium sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of some boundary planting	Minor-moderate adverse for residential receptor R7 and minor adverse for road users. Both effects would be temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
Restoration (Yr 15-20 post-restoration)	Improved setting from more sensitive landform creation and potential for views into and across Site to lake and new planting	Residential receptor: High sensitivity Road user: Medium sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Settlements (Refer to **Figure 7.8, Volume 2 of the ES**)				
S1: Sutton-cum-Lound (386 m, N)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	High sensitivity/ Negligible magnitude of change	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the western boundary (Phases HR P4-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Negligible adverse, temporary and reversible
Restoration (Yr 15 - 20 post restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
S2: Lound (500 m, N)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements and activities on Site are possible from certain locations on the outskirts or from upper-	High sensitivity/ Negligible	Specified working hours and low impact lighting policy using	Negligible adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	storeys. As the progressive extraction and restoration proceeds the most pronounce effects would occur during the working of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5) although buffers would be instigated and a line of vegetation would be retained	magnitude of change	directional lighting.	
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Neutral or no change magnitude of change	Progressive restoration and enhancement	No effects
Residential Receptors (Refer to **Figure 7.8, Volume 2 of the ES**)				
R1: Low Farm (34 m, N)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern and western boundaries (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Minor-moderate adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved setting from more sensitive landform creation and potential for views into and across	High sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	Site to lake and new planting			
R2: Bellmoor Farm and Bellmoor Cottage and Other Properties (150 m, N and W)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of HR P5 and HR P6. The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Medium magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of some perimeter planting	Moderate-major adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial
R3: Cross Road Farm and Bridge Lodge (367 m, SW)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity. Removal of vegetation to facilitate the new and widened vehicular access would be noticeable and would reveal potential views into Site	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Minor-moderate adverse and temporary
Operation	Traffic movements, conveyor operation and processing activities would introduce a high level of activity and noise. Removal of vegetation to facilitate the new and widened vehicular access would be noticeable and would reveal potential views into Site from upper-storeys	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree and	Minor-moderate adverse and temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
			hedge planting along wooden fence in Area B	
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
R4: Botney and Brooklyn (250 m SW)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Minor-moderate adverse and temporary
Operation	Traffic movements, conveyor operation and processing activities would introduce a high level of activity and noise. Removal of vegetation to facilitate the new and widened vehicular access would be noticeable and would reveal potential views into Site	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree planting	Minor-moderate adverse and temporary and reversible
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
R5: Botany Bay Farm (367 m SW)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary
Operation	Traffic movements, conveyor operation and processing activities would introduce activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as	Negligible adverse and temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
			possible and replacement tree planting	
Restoration (Yr 15-20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
R6: Tiln Grange and Whitehouse Farm (554 m, S)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy.	Negligible adverse and temporary
Operation	There is some limited potential for filtered or glimpsed views of taller elements within the Proposed Development such as the top of the silo and CHP within Area C. The most pronounced effects would occur during the construction and restoration of the soakaway and settlement lagoons adjacent to the southern boundary (Phases LR P1-P5)	High sensitivity/ Negligible magnitude of change	Retention of vegetation along the southern boundary Specified working hours. Sensitive lighting policy. Delayed extraction and progressive restoration and retention of boundary vegetation	Negligible adverse, temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved setting from new planting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
R7: Hill Top (400 m, N)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of some	Minor-moderate adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	(Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration		boundary planting	
Restoration (Yr 15-20 post-restoration)	Improved setting from more sensitive landform creation and potential for views into and across Site to lake and new planting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
R8: Yew Tree Farm (500 m, N)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible magnitude of change and temporary
Operation	There is some very limited potential for long-distance views of traffic movements on the embankment at certain stages of the Proposed Development. Views would be directed across Town Street and moving traffic and through gaps in vegetation or built form	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of embankment during phased extraction	Negligible adverse and temporary and reversible
Restoration (Yr 15-20 post-restoration)	Improved setting from more sensitive landform creation and potential for views into and across Site to lake and new planting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
R9: Two Residential Dwellings at Wetland Fisheries, Lound Low Road (30 M, N)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity. However these properties are located behind vegetated curtilages and most activity would be screened	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Up to negligible adverse, temporary and reversible
Operation	Glimpsed and oblique views of traffic movements on the embankment are possible	High sensitivity/ Negligible	Specified working hours and low impact lighting	Negligible adverse,

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	at certain stages of the Proposed Development, although most views from the dwellings would be screened by planting on the curtilage. There may be glimpsed views during the restoration of the phases adjacent to the northern boundary (Phases HR P2-P3). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	magnitude of change	policy using directional lighting. Retention of as much vegetation as possible and replacement tree planting.	temporary and reversible
Restoration (Yr 15-20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	Residential receptor: High sensitivity/ Up to small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial effects to the general setting although views from the curtilages would be limited resulting in a negligible beneficial effect
PRoW Users (Refer to **Figure 1.9, Volume 2 of the ES**)				
NT|Sutton|FP1				
Construction Phase	Construction traffic movements and activities, construction lighting, and activity.	High sensitivity/ Medium magnitude of change	Specified working hours. Sensitive lighting policy. Retention of vegetation along the northern boundary of the plant area	Moderate-major adverse and temporary
Operation	Traffic movements, conveyor operation and processing activities. The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Medium magnitude of change		Moderate-major adverse and temporary and reversible
Restoration (Yr 15 - 20 post-restoration)	Improved setting from more sensitive landform creation, open aspect and potential for views	High sensitivity/ small	Progressive restoration and enhancement	Minor-moderate beneficial

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	into and across Site to the new lake and new planting	magnitude of change		
NT|Sutton|FP2				
Construction Phase	Construction traffic movements, disruption, and activity. Loss of vegetation would be apparent	High sensitivity/ Medium magnitude of change	Specified working hours. Sensitive lighting policy. Retention of vegetation along the western boundary and replacement planting / enhancements along section where vegetation is to be removed	Moderate – major adverse, temporary and reversible
Operation	Traffic movements, conveyor operation and processing activities. The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Small magnitude of change	Specified working hours. Sensitive lighting policy	Minor-moderate temporary and reversible
Restoration (Year15 - 20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed, these effects may be apparent earlier than the cessation of operations	High sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial
NT|Sutton|FP5				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy. Retention of vegetation along a section of the boundary	Negligible adverse and temporary
Operation	As the progressive extraction and restoration proceeds the most pronounced effects would occur during the	High sensitivity/ Small magnitude of change	Specified working hours. Sensitive lighting policy Phased	Minor-moderate adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	restoration of the phase adjacent to the western boundary (Phases HR P4 and HR P5) The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration		extraction and progressive restoration would have benefits	
Restoration (Year 15 - 20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
NT|Sutton|BOAT7				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	High sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse, temporary and reversible
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern and western boundaries (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Medium magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree planting.	Moderate-major adverse, temporary reversible
Restoration (Year15 - 20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	High sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial
NT|Sutton|BW4				

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity.	High sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Minor-moderate adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern and western boundaries (Phases HR P4-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	High sensitivity/ Medium magnitude of change	Specified working hours. Sensitive lighting policy. Delayed extraction and progressive restoration would have benefits	Moderate-major adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	High sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor - moderate beneficial
NT|Hayton|FP18				
Construction	Additional traffic, and direct effects such as construction lighting, and activity.	High sensitivity/ Negligible magnitude of change	Specified working hours. Sensitive lighting policy.	Negligible adverse and temporary
Operation	There is some limited potential for filtered or glimpsed views of taller elements within the Proposed Development such as the top of the silo and CHP within Area C. The most pronounced effects would occur during the construction	High sensitivity/ Negligible magnitude of change	Retention of vegetation along the southern boundary Specified working hours. Sensitive lighting policy and	Negligible adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	and restoration of the soakaway and settlement lagoons adjacent to the southern boundary (Phases LR P1-P5)		progressive restoration	
Restoration	Improved setting from new planting	High sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Recreational Routes (Refer to **Figure 1.9, Volume 2 of the ES**)				
Cuckoo Way				
Construction Phase	Indirect effects such as additional traffic	High sensitivity/ Negligible magnitude of change	Specified working hours	Negligible adverse and temporary
Operation	Additional traffic noise and disruption – no visual effects are expected	High sensitivity/ Negligible magnitude of change	Specified working hours. Noise attenuation and replacement planting	Negligible adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	High sensitivity/ Neutral (no change)	Progressive restoration and enhancement	Neutral or no change
Recreational Sites				
Sutton Lakes				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity.	recreational receptor: Medium sensitivity / Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse, temporary and reversible
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary	Recreational receptor: Medium sensitivity / Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting. Retention of embankment until	Minor-moderate adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	(Phases HR P4-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration		restoration of landform	
Restoration	Positive enhancement to wider landscape setting and more naturalistic landform to embankment	Recreational receptor: Medium sensitivity / Small magnitude of change	Progressive restoration and enhancement	Minor-moderate beneficial
Wetland Fishing Lakes (On Northern Boundary)				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	Medium sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and short-term
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The wetland lakes are enclosed by vegetation and structures and views other than from the approach are unlikely. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	Medium sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree planting.	Minor adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	Medium sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor beneficial

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
Transport Routes (Refer to **Figure 1.9, Volume 2 of the ES**)				
A638 Great North Road				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity to the baseline conditions. Removal of vegetation to facilitate new and widened vehicular access	Low sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree / hedge planting and fence along boundary to Area B planting	Negligible-minor adverse and temporary
Operation	Glimpsed views of traffic movements	Low sensitivity/ Negligible magnitude of change	As above	Negligible adverse and temporary
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	Low sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Lound Low Road				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	Medium sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary and reversible
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5). The vegetated embankment would be	Medium sensitivity/ Medium magnitude of change	Specified working hours and low impact lighting policy using directional lighting. attenuation and for visual mitigation	Moderate adverse, temporary and reversible

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	retained during extraction activities and would only be removed for final landform restoration			
Restoration (Year15 - 20 post-restoration)	Improved setting from more sensitive landform creation and potential for views into and across Site to lake and new planting.	Medium sensitivity/ Small magnitude of change	Progressive restoration and enhancement	Minor beneficial
Town Street				
Construction Phase	Additional traffic, and direct effects such as construction lighting, and activity	Medium sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting	Negligible adverse and temporary
Operation	Glimpsed views of traffic movements on the embankment are possible at certain stages of the Proposed Development although the road is bordered by hedges. Any views would be glimpsed and intermittent. The most pronounced effects would occur during the restoration of the phases adjacent to the northern boundary and western boundary (Phases LR P5 and HR P2-5). The vegetated embankment would be retained during extraction activities and would only be removed for final landform restoration	Medium sensitivity/ Negligible magnitude of change	Specified working hours and low impact lighting policy using directional lighting.	Negligible adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	Medium sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Sutton Lane				
Construction Phase	Indirect effects such as additional traffic. Direct effects from loss of	Medium sensitivity/ Small	Specified working hours and low	Minor adverse and temporary

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
	vegetation to facilitate new widened vehicular access and construction lighting	magnitude of change	impact lighting policy using directional lighting Retention of as much vegetation as possible	
Operation	Traffic movements, conveyor operation and processing activities. Removal of vegetation to facilitate the new and widened vehicular access would be noticeable and would reveal transient views into Site	Medium sensitivity/ Small magnitude of change	Specified working hours and low impact lighting policy using directional lighting Retention of as much vegetation as possible and replacement tree/ hedge planting and fence along boundary to Area B	Minor adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	Medium sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Randall Way				
Construction Phase	Indirect effects such as additional traffic and activity	Low sensitivity/ Negligible magnitude of change	Specified hours of working and sensitive lighting policy	Negligible adverse and temporary
Operation	Indirect effects such as additional traffic and activity	Low sensitivity/ Negligible magnitude of change	Specified hours of working and sensitive lighting policy	Negligible adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	Low sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
Hallcroft Road				
Construction Phase	Indirect effects such as additional traffic and activity	Low sensitivity/ Negligible magnitude of change	Specified hours of working and sensitive lighting policy	Negligible adverse and temporary

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
Operation	Indirect effects such as additional traffic and activity	Low sensitivity/ Negligible magnitude of change	Specified hours of working and sensitive lighting policy	Negligible adverse and temporary
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	Low sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
East Coast Main Train Line				
Construction Phase	Indirect effects such as glimpses of additional traffic and movement	Low sensitivity/ Negligible magnitude of change	Specified hours of working and sensitive lighting policy	Negligible adverse and temporary
Operation	Indirect effects such as glimpses of additional traffic and movement	Low sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible adverse and temporary
Restoration (Year15 - 20 post-restoration)	Positive enhancement to wider landscape setting	Low sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial
CUMULATIVE EFFECTS Refer to **Figure 7.10 (Volume 2 of this ES)**.				
Construction Phase	Several of the stated cumulative sites may be constructed at the same time, creating indirect effects such as additional traffic, and direct effects such as construction lighting and increased activity to the baseline conditions	Medium sensitivity/ Negligible magnitude of change	Low impact lighting policy using directional lighting. The use of existing main roads such as the A638 where other traffic of a similar nature would be using the same route. Appropriate noise attenuation and specified working hours	Negligible adverse and temporary

Receptor/Phase	Description of Impact	Sensitivity and Magnitude of Change	Mitigation Proposed	Classification of Residual Effect
Operation	There are very few locations where static views would encompass more than one development at a time. However sequential cumulative effects are expected, particularly for road users	Medium sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible adverse, temporary and reversible
Restoration (Year15 - 20 post-restoration)	After the Site is decommissioned there would be only direct and indirect beneficial effects. As progressive restoration is proposed these effects may be apparent earlier than the cessation of operations	Medium sensitivity/ Negligible magnitude of change	Progressive restoration and enhancement	Negligible beneficial