

Chapter 15: Likely Significant Effects and Conclusions

INTRODUCTION

15.1 This chapter of the Environmental Statement (ES) presents a summary of the likely significant residual effects pertaining to the Proposed Development during the enabling and construction works, and once completed and operational.

15.2 Significant residual effects are generally effects that are moderate or major in scale, an exception to this are effects relating to wind microclimate where minor adverse effects are also considered significant, and which remain following the adoption and inclusion of mitigation measures detailed within this ES. It should be noted that professional judgement in addition to published assessment guidance is used in concluding whether a residual effect is significant.

15.3 For a detailed description of likely environmental effects of the Proposed Development both before and after mitigation and the likely significant residual effects, reference should be made to individual technical chapters **ES Volume 1, Chapters 6 – 13, ES Volume 2, Townscape, Visual Impact and Heritage Assessment and ES Volume 3, Technical Appendices.**

LIKELY SIGNIFICANT EFFECTS

15.4 For details of the methodology used to define the scale (and therefore significance), nature, geographic extent and duration of effects and whether effects are direct or indirect, reversible or irreversible, reference should be made to **ES Volume 1, Chapters 6 – 13, ES Volume 2, Townscape, Visual Impact and Heritage Assessment and ES Volume 3, Technical Appendices.**

15.5 Table 15.1 and 15.2 of this ES chapter outline respectively the likely significant residual effects resulting from the enabling and construction works associated with the Proposed Development, and once the Proposed Development is complete and operational. Significant adverse effects are shaded in ‘orange’, significant beneficial effects are shaded in ‘green’, and Significant neutral effects are shaded in ‘blue’ for ease of identification.

Enabling and Construction

15.6 No significant effects have been identified as a result of the enabling and construction works in respect of the following environmental topic areas covered by the EIA:

- Socio-Economics;
- Transport and Accessibility;
- Air Quality;
- Noise and Vibration;
- Wind Microclimate; and
- Water Resources.

15.7 Significant adverse effects have been identified as being likely in respect of the following environmental topic areas covered by the EIA, and are therefore discussed further below:

- Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare;
- Townscape, Visual Impact and Built Heritage.

Table 15.1 Likely Significant Effects – Enabling and Construction

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+	D	P	St Mt Lt
Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare	Existing Neighbouring Properties	Daylight Up to Moderate Adverse Daylight alterations to four buildings: <ul style="list-style-type: none"> • Cruse House; • Horizon building; • 1-8 Stoneyard Lane; and • New City College. 	Up to Major Adverse* Local	-	D	T	St
		Up to Major Adverse Daylight alterations to one building: <ul style="list-style-type: none"> • 9-24 Stoneyard Lane. 					
	Sunlight Up to Moderate Adverse Sunlight alterations to seven buildings: <ul style="list-style-type: none"> • Cruse House • 1, 3, 11 and 13 Dolphin Lane; • 1 West India Quay; and • Good Faith House. 	Up to Major Adverse* Local	-	D	T	St	
	Private Gardens	Up to Major Adverse Sunlight alterations to three buildings: <ul style="list-style-type: none"> • 15 and 17 Dolphin Lane; and • Port East Apartments. 					
		Overshadowing Up to Moderate Adverse Overshadowing at the following private gardens: <ul style="list-style-type: none"> • 32C Ming Street; • 48 and 49 Dingle Gardens; and • 2 Dolphin Lane. 	Up to Major Adverse* Local	-	D	T	St
		Up to Major Adverse Overshadowing at the following private gardens: <ul style="list-style-type: none"> • 34 A Ming Street; and • 1, 3, 13 and 15 Dolphin Lane. 					

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+	D	P	St Mt Lt
	Future Residents	Light Pollution Potential for light spill on future residents of the Proposed Development as a result of glazing reaching residential windows.	Up to Major Adverse* Local	-	D	T	St
	Sensitive Viewpoints / Road and Rail Users	Solar Glare Up to Major Adverse potential for solar glare to sensitive viewpoints.	Up to Major Adverse* Local	-	D	T	St
	Townscape Character Areas	Adverse effect on TCA A: Canary Wharf and B: Poplar as a result of enabling and construction works.	Moderate Adverse Local	-	D	T	St
TOWNSCAPE, VISUAL IMPACT AND BUILT HERITAGE	Views	Views Moderate Adverse: 12 (Narrow Street), 18 (southern end of Mile Park), 19 (Bartlett Park), 20 (Commercial Road/West India Dock Road/East India Dock Road), 22 (winter) (Poplar Recreation Ground), 23 (Trinity Gardens), 24 (All Saints Churchyard), 28 (winter) (Garford Street), 29 (Hertsmere Road), 33 (Poplar High Street), 34 (Poplar Dock), 36 (Aspen Way, east of the site), 37 (Cordelia Street), 39 (Poplar High Street (central)), 40 (Poplar High Street (east)), 41 (Poplar High Street (west)), and 42 (Shirbutt Street/Hale Street). Moderate to Major Adverse: 21 (Church of St Matthias), 30 (Cannon Workshops), 31 (North Quay, western end), 32 (North Quay, southern side), and 43 (Upper Bank Street).	Moderate Adverse to Major Adverse Local	-	D	T	St
	Heritage Assets	Heritage Assets Quay walls, copings and buttresses to the Import and Export Dock at West Quay and West India Dock North; The warehouses and general offices at the	Moderate Adverse Local	-	I	T	St

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+	D	P	St Mt Lt
		western end of North Quay; St. Matthias Church; listed building groups (i) and (ii); West India Dock Conservation Area; St. Matthias Conservation Area					
<p>Notes: Scale = Negligible / Minor / Moderate / Major Nature = Beneficial or Adverse or Neutral Geographic Extent = Site or Local, District / Borough, Regional, National +ve = Positive / -ve = Negative D = Direct / I = Indirect P = Permanent / T = Temporary St = Short Term / Mt = Medium Term / Lt = Long Term n/a = not applicable / not assessed * Impact of Daylight, Sunlight at enabling and construction period of the Proposed Development ranges from Negligible to the impact given once the Proposed Development is complete and operational.</p>							

15.8 It should also be noted that in relation to daylight, sunlight, overshadowing, light pollution and solar glare effects on neighbours, impacts will gradually increase as the massing of the Proposed Development progresses, to ultimately potentially cause the significant effects identified within Table 15.1 and discussed in the following operational section.

15.9 The EIA process has demonstrated that, during enabling and construction, temporary significant adverse effects would be experienced in relation to views, townscape character areas and heritage assets. However, these effects are temporary and as a result of construction machinery and equipment e.g. cranes, and the appearance of under-construction buildings, which would be replaced by mostly beneficial or neutral effects once the Proposed Development is completed, with the exception of view 21 (the Church of St Matthias).

Complete and Operational Proposed Development

15.10 No significant effects have been identified as a result of the operation of the Proposed Development in respect of the following environmental topic areas covered by the EIA:

- Noise and Vibration; and
- Air Quality.

15.11 Significant effects (beneficial, neutral and adverse) have been identified as being likely in respect of the following environmental topic areas covered by the EIA, and are therefore discussed further below:

- Socio-Economics;
- Transport and Accessibility;
- Daylight, Sunlight, Overshadowing, Light Pollution and Solar Glare;
- Wind Microclimate;
- Water Resources and Flood Risk; and

- Townscape, Visual Impact and Built Heritage.

Table 15.2 Likely Significant Effects – Completed and Operational

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect					
			Scale, Nature and Geographical Extent	+ -	D I	P T	St Mt Lt	
SOCIO-ECONOMICS	Local Economy and Employment	Provision of floorspace is likely to accommodate 14,220 – 18,800 jobs under the Maximum Employment Scenario .	Major Beneficial Local	+	D	P	Lt	
		Provision of floorspaces is likely to accommodate 8,535 – 11,155 jobs under the Maximum Residential Scenario	Major Beneficial Borough	+	D	P	Lt	
			Major Beneficial Local	+	D	P	Lt	
		Local Economy	Additional spending by employees under the Maximum Employment Scenario .	Moderate Beneficial Local	+	I	P	Lt
	Additional spending by residents and employees in the Maximum Residential Scenario		Moderate Beneficial Local	+	I	P	Lt	
	LBTH Housing Need/Demand	Provision of up to 1,152 residential units contributing to policy targets in the Maximum Residential Scenario	Major Beneficial Local	+	D	P	Lt	
			Major Beneficial Borough					
	TRANSPORT AND ACCESSIBILITY	Pedestrians and Cyclists	Enhanced permeability and connectivity of the local area (to and through the Site) reducing 'delay' of pedestrians and cyclists.	Moderate Beneficial Local	+	D	P	Lt
			Severance along Hertsmere road as a result of increased traffic along the road	Moderate Adverse Local	-	D	P	Lt

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+ -	D I	P T	St Mt Lt
		Provision of new pedestrian and cycle connections through the Site is expected to create a more permeable and attractive place to travel to, from and through improving 'Amenity, Fear and Intimidation'.	Moderate Beneficial Local	+	D	P	Lt
DAYLIGHT, SUNLIGHT, OVERSHADOWING SOLAR GLARE AND LIGHT POLLUTION	Existing Neighbouring Properties	Daylight Moderate Adverse Daylight alterations to four buildings: <ul style="list-style-type: none"> Cruse House; Horizon building; 1-8 Stoneyard Lane; and New City College. Major Adverse Daylight alterations to one building: <ul style="list-style-type: none"> 9-24 Stoneyard Lane. 	Moderate Adverse – Major Adverse Local	-	D	P	Lt
		Sunlight Moderate Adverse Sunlight alterations to seven buildings: <ul style="list-style-type: none"> Cruse House 1, 3, 11 and 13 Dolphin Lane; 1 West India Quay; and Good Faith House. Major Adverse Sunlight alterations to three buildings: <ul style="list-style-type: none"> 15 and 17 Dolphin Lane; and Port East Apartments. 	Moderate Adverse – Major Adverse Local	-	D	P	Lt
	Private Gardens	Overshadowing Moderate Adverse Overshadowing at the following private gardens: <ul style="list-style-type: none"> 32C Ming Street; 48 and 49 Dingle Gardens; and 2 Dolphin Lane. Major Adverse Overshadowing at the following private gardens: <ul style="list-style-type: none"> 34 A Ming Street; and 1, 3, 13 and 15 Dolphin Lane. 	Moderate Adverse to Major Adverse Local	-	D	P	Lt

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+	D	P	St Mt Lt
	Future residents of the Proposed Development	Light Pollution Potential for light spill on future residents of the Proposed Development as a result of glazing reaching residential windows.	Negligible to Major Adverse Local	-	D	P	Lt
	Sensitive Viewpoints / Road and Rail Users	Solar Glare A total of 11 viewpoints on the DLR and nearby roads (Aspen Way and Upper Bank Street) are considered sensitive to solar glare from the Proposed Development. The effects could range from Negligible to Major Adverse for each of the viewpoints assessed.	Negligible to Major Adverse Local	-	D	P	Lt
WIND MICROCLIMATE	Pedestrians and Cyclists	Wind Microclimate – Indicative Scheme* Wind conditions at thoroughfares would exceed pedestrian safety limit by 15m/s at probe locations 168 and 180.	Adverse (Significant) Local	-	D	P	Lt
WATER RESOURCES AND FLOOD RISK	Flood risk to existing population and infrastructure	Raising of the dock edge as part of the Proposed Development will improve flood resilience	Moderate Beneficial Local	+	D	P	Lt
TOWNSCAPE, VISUAL IMPACT AND BUILT HERITAGE	Townscape Character Areas	There will be a Moderate Beneficial effect on: • TCA A: Canary Wharf; and • TCA B: Poplar as a result of the Proposed Development.	Moderate Beneficial Local	+	D	P	Lt
	Views	Visual Impact The Proposed Development will have a Moderate Beneficial effect on selected views of the Site: 12 (Narrow Street), 18 (southern end of Mile End Park), 19 (Bartlett Park), 20 (Commercial Road/West India Dock Road/ East India Dock Road), 22 (Winter) (Poplar Recreation	Moderate Beneficial to Moderate to Major Beneficial Local	+	D	P	Lt

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+	D	P	St Mt Lt
		Ground), 23 (Trinity Gardnes), 24 (All Saints Churchyard), 28 (Winter) (Gartford Street), 29 (Hertsmeare Road), 33 (Poplar High Street), 34 (Poplar Dock), 36 (Aspen Way, east of site), 37 (Cordelia Street), 39 (Poplar High Street (central)), 40 (Poplar High Street (east)), 41 (Poplar High Street (west)), 42 (Shirbutt Street / Hale Street) The Proposed Development will have a Moderate to Major Beneficial effect on selected views of the Site: 30 (Cannon Workshops), 31 (North Quay, western end), 32 (North Quay, southern side), 43 (Upper Bank Street)	Moderate to Major Beneficial Local				
		Visual Impact The Proposed Development will have a Moderate to Major Adverse effect on one view of the Site: 21 (Church of St Matthias).	Moderate to Major Adverse Local	-	D	P	Lt
		Built Heritage – Listed Buildings Moderate Beneficial effect to: • Listed Building A - Quay walls, copings and buttresses to the Import and Export Dock at West Quay and West India Dock North; • Listed Building B - The warehouses and general offices at the western end of North Quay; and • Group i - West India Docks.	Moderate Beneficial Local	+	I	P	Lt
	Built Heritage Assets	Built Heritage – Listed Buildings Moderate Neutral effect to: • Listed Building C - The Church of St Matthias; and • Listed building Group ii - Poplar High Street.	Moderate Neutral Local		I	P	Lt

ES Chapter	Receptor	Description of Residual Effect	Classification of Residual Effect				
			Scale, Nature and Geographical Extent	+	D	P	St Mt Lt
		Built Heritage – Listed Buildings Moderate Neutral effects to: <ul style="list-style-type: none"> St Matthias Church Poplar Conservation Area. 	Moderate Neutral		I	P	Lt
		Built Heritage – Conservation Areas Moderate Beneficial effects to: <ul style="list-style-type: none"> West India Dock Conservation Area 	Moderate Beneficial	+	I	P	Lt
Notes: Scale = Negligible / Minor / Moderate / Major Nature = Beneficial or Adverse or Neutral Geographic Extent = Site or Local, District / Borough, Regional, National +ve = Positive / -ve = Negative D = Direct / I = Indirect P = Permanent / T = Temporary St = Short Term / Mt = Medium Term / Lt = Long Term n/a = not applicable / not assessed * For Wind Microclimate Likely Significant Effects of the Indicative Scheme with mitigation measures in place has been presented within this ES chapter as a realistic assessment of the likely wind microclimate conditions which could come forward. However, residual effects (including significant residual effects of the Maximum Parameter Model) is presented within ES Volume 1, Chapter 12 Wind Microclimate .							

Socio-Economics

- 15.12 The Proposed Development will result in a number of significant beneficial effects in relation to Socio-Economics. The housing provision proposed as part of the **Maximum Residential Scenario** (up to 1,152 units) will result in significant beneficial effects as the housing provided will contribute to policy targets, specifically those set out in the London Plan 2016 and the emerging London Plan 2019. The **Maximum Residential Scenario** will result in a **Major Beneficial** effect at the local level and a **Moderate Beneficial** effect at the borough level.
- 15.13 As a result of the floorspace provided as part of the Proposed Development a number of jobs are likely to be generated. This will range from 14,220 – 18,800 in the **Maximum Employment Scenario** and 8,535 – 11,155 in the **Maximum Residential Scenario**. The **Maximum Employment Scenario** will result in a **Major Beneficial** effect at both local and borough level. Across **Maximum Residential Scenario**, this will represent a **Major Beneficial** effect at the local level and a **Moderate Beneficial** effect at the Borough level.
- 15.14 Under the **Maximum Employment Scenario**, the additional employment generated by the Proposed Development will result in a **Moderate Beneficial** effect at the local level on the economy through increased spending. Similarly, under the **Maximum Residential Scenario**, as a result of additional employment and residents, there will be a **Moderate Beneficial** effect at the local level.

Transport

- 15.15 In terms of Transport and Accessibility, the Proposed Development will significantly improve the permeability and connectivity to and through the Site through the provision of new pedestrian and cycle connections. Additionally, there will still be sufficient spare capacity forecast along the main north-south pedestrian routes. This will result in a **Moderate Beneficial** effect in relation to pedestrian and cyclist delay and ‘Amenity, Fear and Intimidation’.
- 15.16 As a result of the Proposed Development, there will be **Moderate Adverse** effect on severance. However, this will only occur along Hertsmere Road. Whilst the absolute increases in vehicle flows on Hertsmere Road are high, the road and its junction with West India Dock Road has adequate spare capacity to accommodate the additional vehicular demand without detriment to road users. The Site is an allocated site and Hertsmere Road would form the main vehicular access for any scheme which comes forward. Therefore, any reasonable quantum of development on the Site would be expected to have a similar impact on Hertsmere Road.

Daylight, Sunlight, Overshadowing, Solar Glare, Light Pollution

- 15.17 Whilst the ES has identified a number of significant effects in relation to daylight and sunlight ranging from **Moderate to Major Adverse**, these effects are from assessing a worst case Maximum Parameter Scenario and are to be expected within a scheme of this scale (it should be noted that this creates an extreme site-wide worst-case scenario whereby each plot is built out to the maximum, disregarding the design guidelines’ requirements). The retained levels of daylight and sunlight at the impacted receptors are largely considered to be in-keeping with an urban setting. Additionally, a number of windows that experience significant losses in daylight or sunlight are situated beneath balconies, recessed balconies or other architectural features of the property which inherently obstruct daylight availability in the existing baseline conditions.
- 15.18 In terms of overshadowing, whilst no significant effects are likely to occur to any public or communal amenity areas, there are nine instances of significant effects relating to private gardens, four **Moderate Adverse** effects and five **Major Adverse** effects.
- 15.19 Whilst it has been identified through a qualitative assessment that significant adverse effects could occur in relation to Solar Glare and Light Pollution, further assessments will be undertaken once detailed designs are available and presented as part of any RMA proposing highly glazed buildings.

Water Resources

- 15.20 In terms of Water Resources and Flood Risk, the dock wall will be raised as part of the Proposed Development which will have a long-term effect on the flood resilience of the local area, leading to a **Moderate Beneficial** effect.

Wind

- 15.21 In terms of Wind Microclimate, two receptor locations (probes 168 and 180) to the south of NQ.D4 experience strong winds which is an **Adverse Significant** effect. However, further potential mitigation measures to reduce wind speeds and provide acceptable wind conditions at these locations have been discussed with **ES Volume 1, Chapter 12: Wind Microclimate** and the wind mitigation strategy will be developed in detail for the final proposals which will be sought for approval during the RMA stages.

Townscape, Views, Built Heritage

- 15.22** Once the Proposed Development is complete there will be a number of significant beneficial effects in relation to townscape and views, 16 views will experience a **Moderate** Beneficial effect whilst 5 will experience a **Moderate to Major Beneficial** effect. The Proposed Development would help balance the composition of the Isle of Dogs tall buildings cluster and, together with existing buildings to the south of the Site, it would help to suggest the location and alignment of the North Dock.
- 15.23** Whilst a significant **Moderate to Major Adverse** effect has been identified in relation to one view (of the Church of St Matthias), this is not considered to be the most important view of the Church and the overall extent of the adverse effect is considered to be small.
- 15.24** The Proposed Development would reinforce the existing character of TCA A (Canary Wharf) within which it is located and would enhance its appearance and amenity value through its contribution to the legibility and composition of the existing tall buildings group, resulting in a **Moderate Beneficial** effect. The Proposed Development would also recognisably add to an existing background layer of townscape formed by the tall buildings of Canary Wharf, as seen from TCA B (Poplar), in addition to contributing to a more positive and connected relationship between Poplar and Canary Wharf, resulting in a **Moderate Beneficial** effect.
- 15.25** Significant Beneficial effects in relation to Built Heritage Assets will also occur, with **Moderate Beneficial** effects to 3 listed buildings and one conservation area, and **Moderate Neutral** effects to 2 Listed Building and one conservation area.

Cumulative Effects

- 15.26** The EIA process has identified some additional likely significant cumulative effects, as well as changes to significant effects already identified, as a result of the Proposed Development coming forward in conjunction with the other surrounding development schemes once the Proposed Development is complete and operational.

Construction

- 15.27** No additional likely significant cumulative effects, as well as changes to significant effects already identified, have been identified in relation to enabling and construction.

Completed Development

- Socio-Economics:
 - In terms of effects on housing provision, the cumulative schemes are expected to bring forward an estimated additional 16,500 residential units. The cumulative effect on housing provision is assessed to be **Major Beneficial** at the local and district levels;
 - If all cumulative schemes were to come forward, they would generate up to approximately 73,500 jobs, signifying a **Major Beneficial** effect on employment at the local and district level;
- Townscape, Visual Impact and Built Heritage:
 - The New City College cumulative scheme, which has been qualitatively assessed, would potentially significantly alter the effect of the Proposed Development in views from the north and

in respect of TCA B by obscuring the Proposed Development and introducing tall development closer to these viewpoints and this TCA; and

- The latest scoping submission scheme for 2 Trafalgar Way proposes three buildings up to a height of 46 storeys. Given the location of this site and the broadly similar (albeit somewhat greater) scale of development proposed compared to the consented scheme, the effects of the scoping scheme would not be significantly different in respect of the Proposed Development compared to that of the scheme considered quantitatively in the Built Heritage assessment.
- Greenhouse Gas Emissions
 - In terms of Greenhouse Gases (GHGs), when assessing the Proposed Development to relevant climate change policy, it has been demonstrated that the development meets all relevant policy requirements. The UK has adopted a net zero target to be achieved no later than 2050 with UK government legally mandated to take steps across the economy to meet this target. This will include measures to decarbonise UK power supply as well as ground transportation the effects of which will be to reduce the longer term operational GHG emissions associated with the Proposed Development to zero by 2050.
 - Overall, the Proposed Development contributes a small amount to GHG emissions and will employ commensurate mitigation measures to ensure policy compliance and minimise its contribution to climate change where possible to ensure that likely significant effects associated with the Proposed Development itself are avoided. Many of the mitigation measures will be further defined during subsequent RMA applications. The IEMA guidance is clear that any GHG emissions might be considered significant, but it is important to acknowledge that significant effects from climate change relate to **cumulative global GHG emissions** from all sources driving up atmospheric temperatures and do not relate to a direct effect resulting from a small additional GHG contribution associated with the Proposed Development. It is therefore concluded that significant effects arise as a result of cumulative GHG emissions from all sources, cumulatively, regionally and even nationally.

Conclusions

- 15.28** The redevelopment of the Site will provide a new mixed-use development within North Quay which will include public and open space and improved public realm.
- 15.29** During the enabling and construction works significant adverse effects are limited to daylight, sunlight, overshadowing, solar glare and light pollution and temporary adverse effects in relation to townscape character areas and views.
- 15.30** Once completed and operational the Proposed Development would likely result in significant adverse effects relating to daylight, sunlight, overshadowing, solar glare and light pollution, transport and accessibility, visual impact and wind microclimate.
- 15.31** The Proposed Development is also likely to bring significant benefits and opportunity in the long-term, as well as the potential to act as a catalyst for regenerating the surrounding area, to those already living and working in the local area, as well as those future occupants within the Proposed Development.

- 15.32** Once completed and operational the Proposed Development would likely result in significant beneficial effects relating to socio-economics, transport and accessibility, townscape and visual impact, water resources and flood risk.
- 15.33** The Proposed Development would comprehensively redevelop the Site, providing generous public space, new pedestrian routes through the Site, and buildings of a scale and with an arrangement on Site that would positively reinforce the existing character of the area in which it is located, particularly in relation to Canary Wharf.
- 15.34** The Proposed Development accords with the development plan and the identification of the Site at both the strategic and local level as a significant opportunity with the potential to provide the new homes, jobs, and infrastructure for the LBTH and London.