

B&Q Cricklewood ES Volume I

Chapter 17: Effects Interactions

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17. Effects Interactions

17.1 Introduction

- 17.1.1 This chapter considers the potential for effect interactions to arise during both the demolition and construction, and the complete and operational phase of the Proposed Development. This chapter also presents an assessment of the significance of identified residual effects.
- 17.1.2 For the purposes of the assessment of combined effects of individual impacts on sensitive receptors, the sensitive receptors/ receptor groups have been identified within *Chapter 7: EIA Methodology*. For certain sensitive receptors/receptor groups, no interactions with other individual effects can occur. Therefore, no combined effect of individual impacts could arise and as such, these sensitive receptors have been excluded from this assessment. More details of the excluded sensitive receptors and effect interactions methodology can be found within *Chapter 7: EIA Methodology*.
- 17.1.3 In brief, *Chapter 7: EIA Methodology* identifies sensitive receptors, which may experience multiple effects. The identified residual effects (as set out within Chapters 8 – 16, *ES Volume II: Townscape, Visual and Built Heritage Impact Assessment* (TVBHIA) and *Chapter 19: Residual Effects and Conclusions*) have been reviewed against the sensitive receptors which they could affect. It is considered that negligible effects identified within technical assessments do not have the potential to result in significant effect interactions. Where there is more than one residual effect (above the negligible effect category) on a particular receptor, the potential for effect interactions has been determined. If there is the potential for an effect interaction, consideration is then given as to whether there is the potential for any resultant combined cumulative effects and whether further mitigation is required.
- 17.1.4 Table 17-1 and Table 17-2 present a summary of residual effects (above the negligible effect category) on sensitive receptors which have been scoped into the effect interactions assessment within *Chapter 7: EIA Methodology*. Consideration has been given to the demolition and construction phase (Table 17-1) and the complete and operational Proposed Development (Table 17-2).
- 17.1.5 This chapter has been prepared by AECOM Infrastructure and Environment Ltd ('AECOM').

17.2 Assessment of the Combined Effects of Individual Impacts – Demolition and Construction

- 17.2.1 Based on the methodology detailed above and within *Chapter 7: EIA Methodology*, Table 17-1 presents a review of the potential for interactions of individual effects during the demolition and construction phase of the Proposed Development. The potential effects of the interactions are then further discussed below.

Table 17-1 Combined Effects of Individual Demolition and Construction on Sensitive Receptors

Sensitive Receptors	Demolition and Construction Residual Effects (above negligible category)				Potential for Significant Effect Interactions and Combined Effects
Demolition and Construction Workers	<p align="center">Socio-economics Employment generation during the demolition and construction phase Minor Beneficial</p>				No significant effect interactions or combined effects are likely to occur.
Future On-Site Users (early occupants of the Site while the remaining phases of the Proposed Development are still under construction)	<p align="center">Wind Microclimate On-site Thoroughfares Minor Beneficial to Negligible</p>				No significant effect interactions or combined effects are likely to occur.
Neighbouring Residential Properties/ Local Residents	<p align="center">Noise and Vibration Construction noise affecting receptors at Cricklewood Lane (R2) Negligible to Moderate Adverse</p>	<p align="center">Noise and Vibration Construction noise affecting receptors at Dairyman Close (R1) and Kara Way (R3), and future occupants Negligible to Minor Adverse</p>	<p align="center">Noise and Vibration Construction vibration affecting identified receptors R1 to R4 and future occupants Negligible to Minor Adverse</p>	<p align="center">Socio-economics Employment generation during the demolition and construction phase Minor Beneficial</p>	<p align="center">Yes Noise and Vibration combined effects</p>
Neighbouring and Local Commercial Properties and Businesses	<p align="center">Noise and Vibration Construction noise affecting receptors at Cricklewood Lane (R2) Negligible to Moderate Adverse</p>	<p align="center">Noise and Vibration Construction noise affecting receptors at Dairyman Close (R1) and Kara Way (R3), and future occupants Negligible to Minor Adverse</p>	<p align="center">Noise and Vibration Construction vibration affecting identified receptors R1 to R4 and future occupants Negligible to Minor Adverse</p>	<p align="center">Socio-economics Employment generation during the demolition and construction phase Minor Beneficial</p>	<p align="center">Yes: Noise and Vibration combined effects.</p>
Neighbouring / Local Amenity / Open Space	<p align="center">Noise and Vibration Construction noise affecting receptors at Cricklewood Lane (R2)</p>	<p align="center">Noise and Vibration Construction noise affecting receptors at Dairyman Close (R1)</p>	<p align="center">Noise and Vibration Construction vibration affecting identified receptors R1 to R4 and future occupants Negligible to Minor Adverse</p>	<p align="center">Socio-economics Employment generation during the demolition and construction phase Minor Beneficial</p>	<p align="center">Yes: Noise and Vibration combined effects.</p>

Sensitive Receptors

Demolition and Construction Residual Effects (above negligible category)

Potential for Significant Effect Interactions and Combined Effects

Negligible to Moderate Adverse

and Kara Way (R3), and future occupants
Negligible to Minor Adverse

17.3 Assessment of the Combined Effects of Individual Impacts – Complete and Operational

- 17.3.1 Based on the methodology detailed above and within *Chapter 7: EIA Methodology*, Table 17-2 presents the review of the potential for interactions of individual effects once the Proposed Development is complete and operational. The potential effects of the interactions are then further discussed below.

Table 17-2: Combined Effects of Individual Effects on Sensitive Receptors of the Complete and Operational Proposed Development

Sensitive Receptors	Complete and Operational Residual Effects				Potential for Significant Effect Interactions and Combined Effects
Demolition and Construction Workers	N/A to this phase.				
Future On-Site Users	Socio-economics Provision of Housing Moderate Beneficial	Socio-economics Provision of Affordable Housing Minor Beneficial	Socio-economics Provision of Publicly Accessible Play Space Minor Beneficial	Socio-economics Provision of Publicly Accessible Open Space Minor Beneficial	Yes: Socio-economics combined effects &
	Socio-economics and Health Employment generation during the complete and operational phase Minor Adverse	Traffic and Transportation Amenity, fear and intimidation of vulnerable road users Moderate Beneficial	Traffic and Transportation Severance Major Beneficial	Wind Microclimate On-site Thoroughfares Negligible to Moderate Beneficial	Traffic and Transportation combined effects & Wind Microclimate
Neighbouring Residential Properties/ Local Residents	Socio-economics Provision of Housing Moderate Beneficial	Socio-economics Provision of Affordable Housing Minor Beneficial	Socio-economics Provision of Publicly Accessible Play Space Minor Beneficial	Socio-economics Provision of Publicly Accessible Open Space Minor Beneficial	Yes: Daylight, Sunlight and Overshadowing combined effects &
	Socio-economics Employment generation during the complete and operational phase Minor Adverse	Traffic and Transportation Amenity, fear and intimidation of vulnerable road users Moderate Beneficial	Traffic and Transportation Severance Major Beneficial	Wind Microclimate On-site Thoroughfares Negligible to Moderate Beneficial	Socio-economics combined effects &
	Daylight, Sunlight and Overshadowing Effect of Proposed Development on Daylight Amenity of Sensitive	Daylight, Sunlight and Overshadowing Effect of Proposed Development on Daylight Amenity of Sensitive	Daylight, Sunlight and Overshadowing Effect of Proposed Development on Sunlight Amenity of Sensitive	Daylight, Sunlight and Overshadowing Effect of Proposed Development on Daylight and Sunlight	& Traffic and Transportation combined effects

Sensitive Receptors

Complete and Operational Residual Effects

Potential for Significant Effect Interactions and Combined Effects

	Receptors - 42- 48 Cricklewood Lane Moderate Adverse	Receptors – Dairyman Close Moderate Adverse	Receptors – Dairyman Close Moderate Adverse	Amenity of all other Sensitive Receptors Negligible to Minor Adverse	& Wind Microclimate
	Traffic and Transportation Amenity, fear and intimidation of vulnerable road users Moderate Beneficial	Traffic and Transportation Severance Major Beneficial	Wind Microclimate Off-site Thoroughfares Negligible to Moderate Beneficial		
Neighbouring and Local Commercial Properties and Businesses	Socio-economics Additional Local Spend by Residents Minor Beneficial	Traffic and Transportation Amenity, fear and intimidation of vulnerable road users Moderate Beneficial	Traffic and Transportation Severance Major Beneficial	Wind Microclimate Off-site Thoroughfares Negligible to Moderate Beneficial	Yes: Socio-economics combined effects & Traffic and Transportation combined effects & Wind Microclimate
Neighbouring / Local Amenity / Open Space	Wind Microclimate Off-site Thoroughfares Negligible to Moderate Beneficial	Traffic and Transportation Amenity, fear and intimidation of vulnerable road users Moderate Beneficial	Traffic and Transportation Severance Major Beneficial		Yes: Traffic and Transportation combined effects & Wind Microclimate

17.4 Conclusion

Demolition and Construction

- 17.4.1 Whilst there are likely to be residual adverse effects as a result of both the demolition and construction phase, and once complete and occupied, these effects vary in physicality and ability to combine with other effects and are therefore unlikely to interact to create a more significant effect on the specified receptors.
- 17.4.2 Table 17-1 shows that during the demolition and construction phase of the Proposed Development, the early occupants of the Proposed Development and local residents within the vicinity of the Site may experience adverse effects due to noise and vibration resulting from the demolition and construction activities. As these effects occur during the demolition and construction phase, they are all temporary in nature. The residual construction effect on archaeological assets, is considered to be permanent, albeit there is no chance for effect interactions to occur to the archaeological remains receptor as identified within *Chapter 7: EIA Methodology*). With the adoption of best possible environmental management practices and mitigation measures, the combined effect of individual impacts on the identified sensitive receptors will be reduced as far as is reasonably practicable. These practices will be detailed in a Construction Environmental Management Plan (CEMP), which will be secured by an appropriately worded planning condition. The CEMP will set out the proposed environmental design and management measures during the demolition and construction phase as outlined within each of the technical chapters of this ES.
- 17.4.3 The potential adverse residual effects identified have little potential for interaction and are unlikely to combine to result in significant effects on the receptor groups identified in Table 17-1. Therefore, it is considered that the combined effects during demolition and construction will not be significantly greater than those presented for individual elements in Table 17-2.

Complete and Operational

- 17.4.4 Table 17-2 shows that there is the potential for a series of effect interactions to take place once the Proposed Development is complete and operational, due to a combination of effects from socio-economic benefits delivered by the Proposed Development (Minor to Moderate Beneficial), reduction of daylight and sunlight amenity on some neighbouring properties (Negligible to Moderate Adverse), reduction in amenity, fear and intimidation of vulnerable road users (Moderate Beneficial), severance (Major Beneficial), and improved wind microclimate conditions (Negligible to Moderate Beneficial). The multiple effects may be experienced by:
- Future On-Site Users;
 - Neighbouring Residential Properties;
 - Neighbouring and Local Commercial Properties and Businesses; and
 - Neighbouring/Local Amenity/Open Space.