12 Residual Impact Assessment

12 Residual Impacts and Conclusions

Introduction

12.1 This chapter of the ES assesses the residual impacts of the Proposed Development. Residual impacts are defined as those impacts that remain following the implementation of mitigation measures. Mitigation measures for each area of environmental impact are discussed in full in the relevant technical chapters (Chapters 7-10 of ***ES Volume I*** *and* ***ES Volume II: Townscape, Heritage and Visual Impact Assessment***).

12.2 In addition, this chapter also draws overall conclusions following consideration of both the beneficial and adverse residual impacts of the Proposed Development. This chapter has been prepared by URS.

Background

12.3 The EIA for the Proposed Development has been undertaken in parallel with the design process. Hence, many measures have already been undertaken to eliminate adverse environmental impacts once the Proposed Development is operational. These include, for example, designing the Proposed Development to an appropriate height and massing to provide an overall scale appropriate to the site's location.

12.4 With respect to the mitigation of adverse impacts during the demolition and construction phase, a Principal Contractor will be appointed to develop a Demolition and Construction Method Statement (DCMS) and Environmental Management Plan (EMP) (see ***Chapter 6: Construction*** of ***ES Volume I***) to incorporate the commitments as follows:

- Incorporation of measures for environmental protection, such as provision of site hoarding and housekeeping procedures;
- Responsibilities under the Considerate Contractors Scheme (CCS) including restricted operations, maintaining good neighbour relations and procedures for responding to complaints;
- Details of operations likely to result in disturbance, with an indication of the expected duration of each phase with key dates; and
- Provisions for reporting on environmental performance.

12.5 The DCMS and EMS will address all relevant environmental issues including: air quality, noise and vibration, and waste and recycling.

Residual Impacts

12.6 The combined impacts of individual impacts from the Proposed Development on a particular receptor have been assessed using the experience and judgment of each technical specialist. These are called impact interactions, and, where present, they are by their nature impractical to quantify and thus are expressed qualitatively.

12.7 For the purpose of consistency and in accordance with the principles of section 14 of the Crossrail Act, URS has used the significance criteria and methodology set out in Volume 5 of the Crossrail ES, where appropriate.

12.8 These criteria apply a common EIA approach of classifying impacts according to whether they are non-significant impacts (NSig), significant impacts (Sig) or significant impacts of particular importance (PSig), and are considered to be adverse or beneficial.

12.9 A summary of residual construction impacts arising following the implementation of mitigation measures is provided in Table 12-1. Table 12-2 provides a summary of the identified residual impacts arising once the Proposed Development is operational. These are described with reference to:

- The nature of the impact (i.e. adverse, beneficial or NSig);
- The anticipated timescale (i.e., short-term, long-term or permanent);
- The scale of the impact (i.e. national, regional, district, local or site specific); and
- Impact significance (NSig, Sig or PSig).

Table 12-1 Summary of Construction Related Residual Impacts

ES Chapter No. / Technical Study	Residual Impact Description	Nature and Timescale of Impact	Scale	Significance
7. Air Quality	Increase in HGV movements during demolition and construction	Not significant	Local	**NSig**
	Construction Site plant emissions	Not significant	Local	**NSig**
	Impacts from Demolition and Construction Dust	Adverse; Short-term	Local	**NSig**
8. Noise and Vibration	Construction Noise	Not significant to Adverse; Short-term.	Local	**NSig to Sig Adverse**
	Construction Vibration	Not significant	Local	**NSig**
	Construction Traffic Noise	Not significant	Local	**NSig**
9. Waste and Recycling	Not applicable	Not applicable	Not applicable	Not applicable
10. Daylight and Sunlight	Construction activities (including light pollution)	Not significant; Short-term	Local	**NSig**

12 Residual Impacts and Conclusions

Table 12-2 Summary of Operational Related Residual Impacts

ES Chapter No. / Technical Study	Residual Impact Description	Nature and Timescale of Impact	Scale	Significance
7. Air Quality	Changes in Traffic Movements from the operational Proposed Development	Not significant	Local	**NSig**
	Heating plant emissions from the operational Proposed Development	Adverse; Long-term	Local	**Sig Adverse**
8. Noise and Vibration	Noise and Vibration from Building Services Plant	Not significant	Local	**NSig**
	Operational Traffic Noise	Not significant	Local	**NSig**
9. Waste and Recycling	Not applicable	Not applicable	Not applicable	Not applicable
10. Daylight and Sunlight	Daylight Levels to 8-10 Southampton Row	Not significant to Adverse; Long-term	Local	**NSig to Sig Adverse**
	Sunlight Levels to 8-10 Southampton Row	Not significant; Long-term	Local	**NSig**

Townscape, Heritage and Visual Impact Assessment

12.10 A full assessment of the residual impacts to local, regional and wider strategic views can be found in ***ES Volume II: Townscape, Heritage and Visual Impact Assessment***.

12.11 Whilst there will be a high level of significant, adverse impacts on townscape and the setting of built heritage and visual amenity arising from the construction phase of the Proposed Development, these will be short-term impacts that will not last beyond its completion. The most significant townscape and visual impacts due to construction arise from the incomplete appearance of the structure and from the infrastructure associated with the construction works. During the construction period of the Proposed Development, site activities, lighting, construction equipment and construction traffic on streets close to the application site would impact on the character of the townscape and the setting of designated heritage assets in close vicinity. The magnitude of the impact close to the application site would be high and, due to the high sensitivity of the townscape locally, the impacts on local townscape character would therefore be short-term **Adverse Sig.**

12.12 The impacts on townscape, built heritage and visual amenity arising during the operational phase of the Proposed Development will be permanent and can not be mitigated, other than through measures which have already been incorporated in to the design of the Proposed Development. Mitigation of potentially adverse impacts on the townscape, built heritage and visual amenity have all been considered throughout the design process. The height, mass, materials and details were selected based on an understanding of the existing context and adjusted to improve the relationship to context where possible.

12.13 Assuming the Proposed Development is successfully implemented, then the assessment of townscape, built heritage and visual impacts during operation concludes that the Proposed Development would be entirely beneficial with impacts ranging from **NSig** to **Beneficial Sig** and **Beneficial PSig**.

Summary and Conclusion

12.14 Throughout the construction programme, a number of short-term **NSig** impacts are anticipated in relation to air quality, noise and vibration and daylight and sunlight. A short-term **Adverse Sig** impact in relation to construction noise at the application site is anticipated. A short-term **Adverse Sig** impact on the local townscape character is also likely during construction, although this would be mitigated by hoarding used to screen construction plant and activity at street level and good site management measures taken to reduce the visibility of construction works.

12.15 Once operational, the Proposed Development will result in a number of **NSig** impacts in relation to air quality, noise and vibration and daylight and sunlight. A long-term **Adverse Sig** impact in relation to heating plant emissions from the operational Proposed Development is anticipated. It is anticipated that pollutant concentrations will exceed the mean annual and short term NO_2 Air Quality Strategy objectives in 2013 and up to and including 2018, across the application site and surrounding area. However, this is the case both with and without the Proposed Development and it is important to note that the whole borough is currently designated an AQMA, and hence this Proposed Development would not introduce new residents into a location where air quality is significantly worse than other parts of the borough. A long-term **Adverse Sig** impact in relation to daylight levels to 8-10 Southampton Row is also anticipated. However, this is for a relatively small proportion of the rooms within 8-10 Southampton Row, and as the impact will be to the central rooms which are not primary habitable rooms, the overall impact on the level of amenity enjoyed by the occupants will not be material.

12.16 The overall conclusion of the ES is that the Proposed Development presents a high quality design that compliments the existing and anticipated townscape. Although adverse impacts have been identified, there are few that are considered significant. In general, the proposed development accords with the overall objectives of planning policies at national, regional and local levels and is considered to be in accordance with the Government's objectives for sustainable development.