18. Residual Impacts and Conclusions

Environmental Appraisal
Volume I

18. RESIDUAL IMPACTS AND CONCLUSIONS

18.1 Introduction

This chapter of the Environmental Appraisal (EA) 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 relate to any of the three key phases (design, construction, and operation) of the Proposed Development and are discussed in full in the relevant Technical Chapters. In addition, each Technical Chapter also contains detailed consideration of both positive and negative residual impacts arising. The significance criteria applied to these impacts is outlined in *Chapter 2: EA Methodology* and within the individual Technical Chapters.

18.1 Background

The Environmental Impact Assessment (EIA) for the Proposed Development has been undertaken in parallel with the design process. Hence, a number of measures have already been undertaken to eliminate adverse environmental and social impacts. These include, for example, appropriate height and massing to provide an overall scale appropriate to the site's location, and development of the attenuation ponds as part of the site drainage strategy to reduce run-off from the site.

With respect to the construction process, a Contractor will be appointed to develop an Environmental Management Plan (EMP) which will be developed in accordance to AWE's Code of Consruction Practice (CoCP). This will incorporate all of the commitments within the EA to include:

- All commitments for environmental protection, restricted operations, site access, housekeeping procedures and good neighbour relations;
- Provisions for affected parties to register compliance and procedures for responding to complaints;
- Details of operations likely to result in disturbance, with an indication of the expected duration of each phase to key dates; and
- Provisions for reporting on environmental performance.

The EMP will address all relevant environmental issues including: noise and vibration, waste management, air emissions, protection of archaeological resources, hours of working and amenity.

18.2 Residual Impacts

The EA process has involved the identification of residual impacts (i.e. those impacts which remain following the implementation of mitigation measures) as part of each of the technical assessments provided in Chapters 7 – 15. A summary of residual impacts identified is provided within Table 18-1.

Table 18-1 Summary of Residual Impacts

Chapter No./Aspect	Description	Nature of Impact	Geographic Scale*	Significance of Residual Impact
7. Ground Conditions	Effect of development on existing ground conditions during construction & operational phases.	Negligible	L	Negligible
	Presence of existing contamination in soils and groundwater on controlled waters.	Negligible	L	Negligible
	Presence of existing contamination in soils on human health.	Negligible	L	Negligible
	Accidental spillage of contaminants (fuels or chemicals) from vehicles / building materials.	Negligible	L	Negligible
8. Water Resources	Disturbance of sediment and discharge of suspended solids to surface water drainage system groundwater and surface water resources	Negligible	L	Negligible
	Accidental spillages of fuels, oils, chemicals, and / or building materials during with subsequent impact on groundwater and surface water resources.	Negligible	L	Negligible
	Increase in surface runoff from increase in areas of temporary and permanent hardstanding	Negligible	L	Negligible
9. Transport	Impact on pedestrian severance and safety.	Negligible	L, D	Negligible
	Impact on pedestrian amenity.	Negligible	L, D	Negligible
	Impact on cyclist safety.	Negligible	L, D	Negligible
	Impact on cyclist severance, amenity & delay.	Negligible	L, D	Negligible
	Impact on car driver safety & delay.	Negligible	L, D	Negligible
	Impact to passenger transport users in terms of delay.	Negligible	L, D	Negligible
	Impact to passenger transport users in terms of severance and amenity.	Negligible	L, D	Negligible
10. Air Quality	Construction phase dust and emissions to air from plant and HGV movements.	Negligible	L	Negligible
	Operational phase emissions to air from plant and vehicle movements.	Negligible	L	Negligible
11. Noise and Vibration	Construction Noise from plant and HGV movements.	Negligible	L	Negligible
	Construction Vibration	Negligible	L	Negligible
	Operational Traffic	Negligible	L, D	Negligible
	Operational Fixed Plant (HVAC)	Negligible	L	Negligible
12. Socio-economics	Employment created during construction phase.	Beneficial	D, R	Minor
	Employment created once in operation.	Beneficial	D, R	Negligible
	Retail and leisure: increased use of local retail services.	Beneficial	L, D	Negligible
	Local Housing market: increased demand for residential property in proximity to the site.	Negligible	L, D	Negligible
13. Landscape & Visual	Landscape: Temporary effect on eastern sector of the AWE site (Open Grassy Heath Plateau)	Adverse	L	Minor
	Landscape: Long term effect (by Year 1)	Negligible	L	Negligible
	Landscape: Long term effect (by Year 10)	Negligible	L	Negligible
	Visual: impact to near views and long-distance views from variety of receptors.	Negligible	L, D	Negligible
14.Archaeology	Archaeology: Character Area A7 - Potential buried archaeology	Negligible	L, R	Negligible
	Cultural Heritage: Character Area - Visual impact on the setting of Area EX1	Negligible	L, R	Negligible

Chapter No./Aspect	Description	Nature of Impact	Geographic Scale*	Significance of Residual Impact
	Cultural Heritage: Character Area - Visual impact on the setting of area EX2 and A15	Negligible	L, R	Negligible
15. Ecology	Temporary loss of habitats considered to be of nature conservation value.	Adverse	L	Minor
	Long term impact on habitats considered to be of nature conservation value.	Beneficial	L	Minor

*; R = Regional; D= District; L = Local.

18.3 Conclusions

The Proposed Development covers an area of 14.3 hectare (ha) at the AWE Aldermaston site. The key components comprise:

- The Proposed Facility;
- The Temporary Construction Enclave, including the Construction Site, Contractors Compound and Overflow Compound;
- The Construction Workers Car Park; and
- Site Access Road

The Proposed Development complies with Government guidance and with regional, strategic and local planning policies, in particular the strategy for employment provision.

As part of the Government Estate, AWE has a commitment to adopt the principles of sustainability in all new developments. Sustainability is a core part of the Aldermaston and Burghfield Site Development Context Plan (SDCP) 2005-2015, as detailed in the strategies prepared to support the delivery of this SDCP.

The proposals have been designed with respect to policy, meeting strategic and local requirements, and in implementing part of the Regional Strategy. The proposals comply with policy at a National, Regional and Local level and meet their overriding objectives of serving the employment, housing and other needs of the locality, whilst fulfilling the principles of sustainability.

The Proposed Development will lead to a number of minor beneficial impacts, particularly in relation to its socio economic impacts on the local area, and will enable all explosive fabrication facilities to be located in one purpose built area. In the short term the effects on the local landscape and ecology will be adverse, however once the ecology has been re-established and additional replacement trees been planted the impact will be minor beneficial. The overriding conclusion of the EIA is that the Proposed Development will have an overall beneficial impact on the local and regional economy and would be a positive step towards meeting a number of the strategic objectives of regional and local policy. The Proposed Development will help secure the long-term viability of AWE Aldermaston for the local area and will provide a number of employment opportunities during the construction phase.