

4. ALTERNATIVES & DESIGN EVOLUTION

Introduction

4.1 Regulation 18 and Schedule 4 of the EIA Regulations require an applicant to provide:

'A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects'.

4.2 Alternatives typically comprise:

- The 'do nothing' alternative, where the Development is not progressed;
- Consideration of Alternative Locations or Uses; and
- Consideration of Alternative Designs.

4.3 The form of the Development has been influenced by a range of factors, including location, surrounding uses and landscape character, biodiversity constraints, environmental impact assessment, and input from Medway Council, statutory consultees and stakeholders.

The 'do nothing' Alternative, Consideration of Alternative Locations and Uses

4.4 Under the 'do nothing scenario', the Site would remain in its existing use as a largely cleared brownfield site. The beneficial and adverse effects outlined in this ES would not occur. Hence, this option has been discounted.

Consideration of Alternative Uses, Scale and Designs

4.5 The Site comprises primarily previously developed land which historically contained heavy industrial uses and energy generation associated with the former Kingsnorth Power station, which has been decommissioned and demolished.

4.6 The Development comprises a mix of employment uses, for which there is a known demand. It would provide added employment generation at the Site, as well as modern, future-proofed buildings that are suitable for modern occupation.

- 4.7 Due to the size of the Site and its spatial location in close proximity to key markets around the south-east, the Development includes a range of uses such as industrial, commercial, logistics, energy and associated uses in a modern high-quality employment centre.
- 4.8 At this outline stage of the Development, the mix of the uses has remained flexible to best match any future demand for specific uses at the Development. Accordingly, no alternative locations or uses for the Site have been considered.
- 4.9 A summary of the consultation process undertaken can be found in Chapter 2 EIA Methodology. Key issues raised through this process have been taken into account in the design evolution.
- 4.10 Given the outline nature of the planning application to regenerate a significant brownfield site, the proposals are defined in terms of a Parameter Plan (Figure 3.2 of the ES). The Parameter Plan is presented as a drawing for approval, supported by an illustrative masterplan (Figure 3.3 of the ES) showing how the Development could be conceived within the defined envelope. This is a standard and robust approach.
- 4.11 The Parameter Plan was developed from a comprehensive baseline assessment presented throughout the ES. The baseline information defined the areas of constraint which required mitigation to be secured by parameters. These parameters include building height limits, buffer zones from sensitive areas/receptors, proposed developable areas, strategic planting, protection and enhancement of ecological sensitive areas and key strategic infrastructure.
- 4.12 Table 4.1 sets out the issues raised during the consultation process and amendments made to the scheme design which led to the final development option as assessed in the ES and a high level comparison of environmental effects.

Table 4.1: Issues raised in the design and consultation process which have been addressed in the evolution of the Development

Issues Raised	Where addressed within Development Evolution	Comparison of environmental effects
<ul style="list-style-type: none"> Potential for adverse impacts on landscape owing to the scale and massing of the Development 	<ul style="list-style-type: none"> As shown on the Parameter Plan, the general design approach has been to concentrate taller development towards the centre of the Site in the location of the former Kingsnorth Power Station and adjacent to the existing Damhead Creek Power Station. 	<ul style="list-style-type: none"> The Development would give rise to less adverse landscape effects than the earlier alternative design iteration.

Issues Raised	Where addressed within Development Evolution	Comparison of environmental effects
<ul style="list-style-type: none"> Impacts on ecology and wildlife 	<ul style="list-style-type: none"> As shown on the Parameter Plan, a 40-metre-wide ecological no-build zone is proposed in the eastern part of Parcel 4. This buffer zone was the result of daylight and overshadowing analysis undertaken by the project ecologist (refer to Chapter 8 Biodiversity of the ES for further details), to ensure that any built Development at Parcel 4 did not adversely impact wildlife which may be present. In particular, this is in recognition of species which are sensitive to a lack of sunlight. A 20-metre-wide green corridor now separates the different parcels of land to the south of the Site. This is to ensure that movement of species is not impeded by the built form of the Development. An earlier iteration of the Site boundary included land parcels to the east and west of the Site which are now excluded from the Site boundary. These parcels were located within the Medway Estuary Marshes Site of Special Scientific Interest and Ramsar designations. Therefore, on consideration of the potential impact on these designated areas, the Site boundary has been reduced so that it did not include these ecologically sensitive sites. 	<ul style="list-style-type: none"> The Development would give rise to less adverse effects on ecology than the earlier alternative design iteration.
<ul style="list-style-type: none"> Inclusion of additional flood defences 	<ul style="list-style-type: none"> Design meetings and modelling analysis (refer to Chapter 9 Water Resources and Flood Risk of the ES for more information) identified that additional flood defences would be required to maintain the current Standard of Protection (SoP) for the Site, particularly with regards to modelling scenarios which accounted for climate change impacts. Therefore, a zone for a flood defence bund up to 6.6m above ordnance datum (AOD) in height was incorporated into the Development located in the western part of Parcel 1. 	<ul style="list-style-type: none"> The Development would maintain the current SoP with regards to flood defences.
<ul style="list-style-type: none"> Potential for noise impacts on sensitive receptors 	<ul style="list-style-type: none"> Zones for acoustic fencing on the proposed flood defence zone in the western part of Parcel 1 and on the existing flood defence bund in the northern part of Parcel 2 were incorporated into the Parameter Plan. The acoustic fencing would be up to 3m in height. The zones for acoustic fencing were the result of noise modelling analysis undertaken by the project noise consultant to ensure that the Development would not significantly impact the residential receptor at Burnt House Farm. 	<ul style="list-style-type: none"> The Development would give rise to less adverse effects on noise-sensitive receptors than the earlier alternative design iteration