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INTRODUCTION

16.1 The proposed development is about providing a modern, innovative facility which will help divert waste away from landfill and generate renewable energy in accordance with recognised Government policy. The increasing potential for municipal, industrial and commercial waste streams to contribute to energy generation is well recognized in the UK.

16.2 In the spirit of the Government support for the diversion of waste away from landfill, to waste management technologies which recover energy the proposed development therefore comprises;

- 6MWe Advanced Conversion Technology (ACT) Pyrolysis plant which would require approximately 100,000tpa of Municipal Solid Waste (MSW) and Commercial and Industrial (C&I) Waste and other waste with organic content; and
- a 1.6MWe AD facility which would require approximately 54,000tpa of organic, digestible food (green waste etc).

16.3 Network Rail Limited has undertaken a review of their land and identified a number of sites throughout the UK which are no longer required for operational purposes and could therefore be used for redevelopment. As part of this review, the Micheldever Station Site was identified as being suitable for redevelopment. Network Rail has confirmed that the Site is no longer required for operational purposes and is therefore seeking to regenerate the Site with development that has the potential to utilise the existing rail infrastructure.

16.4 The site is located at National Grid Reference SU 51981 43525 to the north of Micheldever railway station and to the south of the A303. The site was previously used as a rail freight yard and as a rail head at the end of the line.

MAIN ISSUES

16.5 The main issues relating to the proposed development are considered to be as follows:

- air quality - ensuring that there are no negative effects from the stack of the development;
- potential adverse landscape and visual impacts;
- potential increase in traffic on the surrounding road network;
- potential adverse impacts on the local environment in terms of noise,
- land quality, hydrology, ecology, and cultural heritage;
- potential impact on the SINC; and
- the potential cumulative impacts of the development in combination with other existing and committed developments in the area.

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TRAFFIC

16.6 The Transport Assessment assessed the potential traffic and transport impacts of the proposed development. A new site access junction on to Overton Road and associated improvements is proposed to current highway standards.

16.7 The transport assessment concluded that the existing safety record of the highway has been reviewed and there is no pattern of accidents that is suggestive of a highway layout deficiency that leads to unacceptable safety risks. With regard to highway capacity, the impact of development traffic would be immeasurably small. Consequently, the proposed development is acceptable from a highway perspective.

No significant adverse traffic impacts have been identified subject to mitigation proposed.

AIR QUALITY

16.8 An assessment of the air quality impacts associated with the proposed development has been undertaken. The assessment has considered:

- construction dust;
- combustion pollutants from stacks serving the ACT and AD processes;
- Air Quality Strategy Pollutants from vehicle exhausts during construction and operation; and
- odour and dust emissions during the operational phase.

16.9 The assessment of construction dust has found that some mitigation measures will be required (primarily during earthworks) due to the proximity to ecological receptors. However with adoption of these measures the residual impact is considered to be 'insignificant'.

16.10 The additional traffic associated with both the construction and operation of the proposed development is below the DMRB criteria for assessment (classified as 'neutral') and therefore the impact associated with vehicle exhaust emissions is considered to be 'insignificant'.

16.11 Given the low potential identified for the release of odour and dust from the proposed development with the extensive mitigation measures appropriately designed and applied effectively; the residual impact is considered to be 'insignificant'.

16.12 The findings of the detailed dispersion modelling assessment of combustion emissions from the stacks serving the ACT and AD processes at the proposed development has found that for all pollutants the maximum predicted long-term and short term impacts on air quality and sensitive ecosystems would be classified as ''insignificant'.

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No significant adverse air quality impacts have been identified subject to mitigation proposed.

NOISE

16.13 The assessment has considered both the potential for the construction and operational proposals to give rise to noise impacts at the closest noise-sensitive receptors.

16.14 The noise assessment has found that:

- construction noise levels are predicted to be well below the 70dB criterion adopted for this assessment at all receptors;
- when assessed against the existing ambient noise levels construction traffic movements would have no impact at any other receptor locations assessed; and
- the BS4142 assessment has shown that the worst-case operational noise rating levels generated by the proposed facility, with the doors open, would lead to a situation between marginal significance and complaints likely during the night-time at Western Farm. In order to mitigate the likelihood of complaints it is proposed that all doors at the facility remain closed at night.

No significant adverse noise impacts have been identified subject to mitigation proposed.

HYDROLOGY AND FRA

16.15 The potential impacts of the proposed development upon the baseline hydrological environment have been identified and assessed, and where appropriate, mitigation measures have been accommodated into the design of the proposed facility.

16.16 All aspects of the construction and operation of the facility would be in accordance with best practice guidance.

16.17 A Flood Risk Assessment (FRA) has been undertaken for the proposed development. The FRA concluded that the application site is presented as being deliverable and highly sustainable in flood risk terms with readily deliverable proposed mitigation measures in place, and that key requirements set out within the NPPF and local planning policies may be adequately satisfied.

16.18 Overall, it is concluded that, with respect to the groundwater and surface water environments, there would be no significant residual impacts of the proposed development with the proposed mitigation measures in place.

No significant adverse water environment impacts have been identified subject to mitigation proposed.

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LAND QUALITY

16.19 The Geology and Land Quality Chapter presented information concerning geology, ground conditions and land quality (contamination) including a discussion of the potential risks to groundwater from previous fuel storage on the western portion of the site.

16.20 The application site's baseline conditions have been relied upon to establish the site's land quality in accordance with CLR 11 'Model Procedures for the Management of Land Contamination'.

16.21 The procedures followed took into account the proposal to construct commercial buildings, re-introducing humans (i.e. workers) to the site after a number of years of dereliction. Various risk assessments consider the potential for existing ground conditions to damage new buildings, harm site users and pollute the wider environment. Mitigation measures are proposed where the potential for damage, harm or pollution is considered significant.

16.22 The land quality assessment was augmented with a discussion of the potential physical and chemical impacts of the proposed development on soils and near surface geological deposits via erosion, disaggregation, compaction and pollution. Appropriate mitigation measures are identified where predicted impacts during construction and operation are significant.

16.23 It is acknowledged that as part of any planning permission further detailed ground investigations will be required before a remediation strategy for the site can be finalised.

16.24 Two forms of assessment have been carried out. The first, a land quality assessment, takes account of the proposal to construct commercial buildings and the likely impact of contamination identified at the site on humans, the built environment and Controlled Waters, followed by measures to mitigate the risks to these receptors. The second, the Development Impact Assessment discusses the potential impacts of the proposed development on soils and near surface geological deposits via erosion, disaggregation, compaction and pollution. Appropriate mitigation measures are identified where predicted impacts during construction are identified.

No significant adverse land quality impacts have been identified subject to the mitigation proposed.

LANDSCAPE

16.25 The assessment of impacts includes a study of the development proposals, potential landscape and visual characteristics and impact generators, effects and mitigation and is considered in terms of spatial element (local, district, regional, national), timescales (short/medium/long term) and permanency (reversible or permanent).

16.26 The application site is set down in the landscape and enclosed by mature tree belts adjacent to an area safeguarded as a rail-head aggregates depot.

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16.27 There are no national landscape designations within the 6km study area. The site itself has a SINC for its calcareous grassland habitats and there is a group tree preservation order along the eastern boundary.

16.28 The application site and adjacent railway sidings contrast with the character of the wider study area. The site consists of bare ground (with large areas of species-rich unimproved chalk grassland), has an engineered, linear form (with the railway sidings cutting into the sites topography) and although there is some natural regeneration and mature trees/woodland plantation around the periphery of the site, the character is of a largely abandoned/derelict state. Overall the character of the site is of "Previously Developed Land".

16.29 The proposed development would alter the landscape character of the site to 'Active Industrial Land' and thus constitute a few changes to its fabric and therefore of a slight to moderate and neutral effect.

16.30 The effect on the wider landscape resource (North Dever Downs Landscape Character Area) would be very limited, due to the small footprint of the site, its existing condition and its limited visibility. The majority of the fabric and views from the published Landscape Character Area will remain intact. Overall there would be no significant landscape effects.

16.31 In respect of visual impacts a localised significant adverse visual effect, immediately adjacent to the isolated residential property at Western Farm on Overton Road to east of the site. This very restricted viewpoint position would receive views of the site entrance, vehicle movements and associated tree loss.

16.32 All other representative viewpoints in the study area, as agreed with the Local Authority, were less than significant and either neutral in nature, or considered to be none resulting from the final development design, degree of screening and nature of landscape mitigation.

16.33 The landscape mitigation strategy would include replacement trees, additional planting around the site and colour treatments to the building.

No significant adverse landscape effects have been identified but a locally significant adverse visual impact from the proposed new access has been identified

ECOLOGY

16.34 This Chapter presented an ecological impact assessment, following guidelines published by IEEM (2006), on the likely effects upon flora and fauna for the proposed development.

16.35 In 2012, an Extended Phase I Habitat survey was undertaken of the application site. The application site was surveyed using the extended Phase I methodology, as recommended by the former IEA and IEEM.

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16.36 In addition, a detailed survey of the grassland botanical resource was undertaken, along with work on bats, reptiles, birds and invertebrates. Adaptations of best practice guidelines for bat have been identified in the relevant locations within the EcIA and Technical Appendix. Best practice guidelines were followed for all other survey work undertaken at the site.

16.37 The application site is wholly contained within Micheldever Oil Terminal SINC and comprises calcareous grassland, scrub and bare ground mosaics.

16.38 The ecological evaluation identified the following receptors of ecological importance within the site:

- Micheldever Oil Terminal SINC supports species-rich calcareous grassland plant communities;
- Slow worm;
- roosting bats in trees assumed present for the purposes of mitigation;
- commuting / foraging bats;
- Dormouse assumed present for purposes of mitigation (present locally);
- Nesting peregrine falcon;
- Nesting birds; and
- Invertebrate assemblage

16.39 The habitat receptors have been identified for the range of functions they provide to fauna species as well as their inherent value as semi-natural habitats.

16.40 The assessment of impacts upon receptors within and around the application site have identified a range of potential impacts, i.e. habitat loss, fragmentation, hydrological, dust, noise and visual impacts; that could result from the construction and operation of the proposed development. The ecological receptors have been assessed against these impacts to identify the likelihood of significant ecological effects.

16.41 Mitigation measures have been devised to avoid, minimise or compensate for potential impacts upon plant communities, slow worms, bats, dormouse, invertebrates, peregrine falcon and birds, specifically in regard to habitat loss and noise and visual disturbance.

16.42 The implementation of operational good practice with regard to dust suppression, protection of surface water, minimisation of noise and visual disturbance would ensure that there are no significant adverse effects upon flora and fauna associated with the site whilst the development is progressing or operated

16.43 Residual impacts of the proposed development have been highlighted with specific regard to habitat loss from the Micheldever Oil Terminal SINC. Residual habitat loss associated with Micheldever Oil Terminal SINC has been quantified at 0.25 ha of calcareous grassland.

16.44 The implementation of the conservation management plan would help to secure the presence of calcareous grassland at the SINC in the long term.

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At present this residual impact is considered to be of minor significance in the short term.

A minor adverse effect due to the overall loss of approximately 0.25ha of calcareous grassland has been identified subject to the mitigation proposed.

CULTURAL HERITAGE

16.45 This chapter presented an assessment of the available data and historic mapping. A large proportion of the western part of the application site has been disturbed through extensive groundwork's associated with the adjacent railway.

16.46 The archaeological potential of the eastern, potentially undisturbed part of the application site has been shown to be high, with Iron Age settlement and agricultural activity demonstrated in the adjacent fields to the east. This archaeological potential is also supported by the evidence demonstrating activity throughout the prehistoric and historic periods, but most notably, the wealth of evidence for prehistoric occupation of the surrounding landscape, displayed by settlement, agrarian and burial remains.

16.47 The proposed development would cause extensive ground disturbance within the eastern part of the application site. This would be likely to damage or destroy any archaeological remains which might be present. The extent and importance of any archaeological remains which might exist within this part of the application site could not be determined without archaeological site investigation.

16.48 It is possible that further measures including archaeological investigation, analysis reporting and archiving might be required ahead of development groundwork's. Impacts on the settings of designated and undesignated heritage assets are predicted to be Imperceptible.

No significant adverse effects on cultural heritage have been identified subject to mitigation proposed.

SUMMARY

16.49 It is considered that the proposed development will contribute to waste management in Hampshire and the surrounding area and maximise the recovery of recyclates, energy and secondary aggregates from waste.

16.50 The introduction of the proposed development into the area will result in a move away from reliance on landfill towards a solution by which the recovery of recyclates is maximised and residual waste (i.e. that remaining after recycling) is effectively and efficiently dealt with by means of a modern and proven industrial combustion process. This process will generate significant amounts of energy to be harnessed for use within the development and for

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surplus export to the National Grid. There is also the potential to utilise excess heat generated by the facility in local homes and businesses.

16.51 The Environmental Impact Assessment (EIA) process has considered the full range of environmental issues established during a comprehensive scoping exercise that included both formal scoping with the local planning authority and subsequent engagement with statutory and non-statutory stakeholders.

16.52 The findings of the EIA for the proposed development concluded that, having taken into account the proposed mitigation, the effects of the development on traffic, air quality, noise, hydrology, land quality and cultural heritage are not considered to be significant.

16.53 Minor negative impacts on ecology and moderate/substantial local negative impacts as a result of the visibility of the proposed new access have been identified by the EIA process.

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