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NON-TECHNICAL SUMMARY

1.1 Introduction

1.1.1 This Non-Technical Summary (NTS) summarises in non-technical language the findings of the Environmental Statement (ES) that reports on the potential effects of the development of the AESC Plant 3 site (i.e. ‘the site’) on the environment and people of the local area.

1.1.2 The site lies within the International Advanced Manufacturing Park (IAMP) boundary, as identified in the IAMP Area Action Plan (AAP) 2017-2032 (adopted 2017). The majority of the site is designated as Green Belt and land for ecological and landscape mitigation, whilst a smaller part of the site is allocated for automotive and advanced manufacturing uses. The neighbouring AESC Plant 2 gigafactory development was granted planning consent in October 2021 and is currently under construction on adjacent land. Figure 1 illustrates the location of the site in the context of its surroundings and the wider IAMP development.

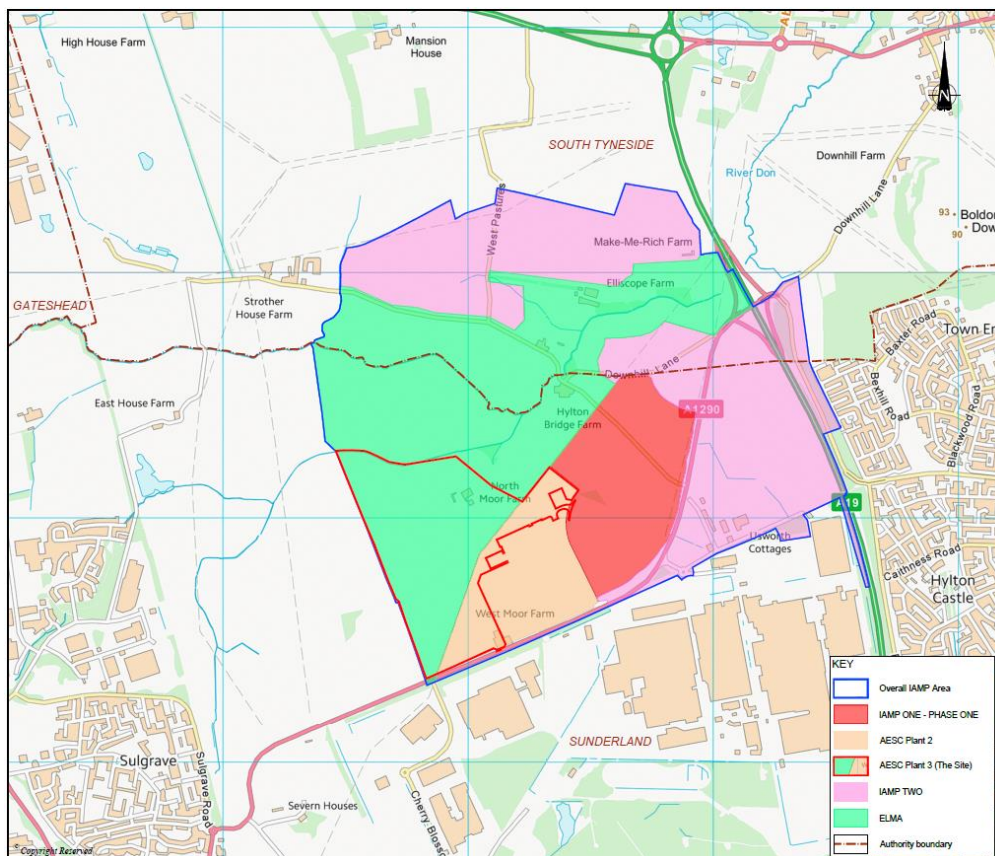


Figure 1: Overall IAMP Site Extents

1.1.3 Chapters 1 and 3 of the ES detail the context for the project and the project characteristics. Effects on the environment of the project area, on planning and development, and on the people of the area have been considered within Chapters 6

to 18 of the ES. Cumulative effects for the individual environmental aspects, as well as on the natural environment and the people and property of the local area, have also been considered within the ES (Chapter 19).

- 1.1.4 Assessments have been undertaken in accordance with best practice and approved methodologies. This information is set out within each technical chapter of the ES. Consultations with the relevant statutory organisations are referenced, where these have occurred. Supporting information is included within the Appendices to the ES. Plans and figures illustrating the findings of the assessments are also provided, as necessary.

IAMP Overview

- 1.1.5 The IAMP is allocated within the IAMP AAP (adopted November 2017) for up to 392,000 m² of advanced manufacturing and automotive uses on 150 ha of land, with 110 ha of land designated for ecological and landscaping mitigation. IAMP is split into two employment areas: a Northern Employment Area and a Southern Employment Area as defined by the IAMP AAP. These employment areas are separated by a belt of agricultural land that lies within the Green Belt. This land is also designated as an Ecological and Landscape Mitigation Area (ELMA). The River Don and its tributary (Usworth Burn) run through the centre of the ELMA. Of the 110 ha of land for the ELMA, 43.6 ha relate to IAMP ONE and 66.4 ha relate to IAMP TWO.

1.2 Scope & Methodology

- 1.2.1 The ES to which this NTS relates supports a detailed planning application for the proposed development of the site for the creation of an electrode and battery manufacturing facility with the capacity to produce up to a maximum of 12 Gigawatt hour (GWh) of batteries per year, an assembly and warehouse building for storage and distribution, an office building, ancillary MEP¹ plant rooms, gatehouse, car parking provision, bicycle and motorcycle shelter, high voltage (HV) substation, landscaping and drainage. The Applicant is AESC UK.
- 1.2.2 An Environmental Impact Assessment (EIA) has been undertaken to inform the ES that has been prepared to accompany the detailed planning application for the proposed development in accordance with The Town & Country Planning (EIA) Regulations 2017 (as amended) (hereafter referred to as the '2017 EIA Regs').

¹ Mechanical, electrical and plumbing (MEP).

- 1.2.3 The statutory requirement for an EIA derives from the 1985 European Council Directive, amended in 1997 by Council Directive 97/11EC that requires the study of the effects of a development upon human beings, flora, fauna, soil, water, air climate the landscape, material assets, cultural heritage, and the interaction between these. The 2017 EIA Regs translate the EIA Directive into the UK's planning legislation.
- 1.2.4 An EIA is needed for projects likely to have significant effects on the environment by virtue of their nature, size or location. Whether or not a development requires an EIA to be undertaken depends on the nature of the development. An EIA is compulsory for major types of development listed in Schedule 1 of the 2017 EIA Regs; Schedule 2 of the 2017 EIA Regs indicates types of other development for which an EIA is required when certain thresholds and criteria are met, indicating that the development is likely to have significant effects on the environment. Under the terms of the 2017 EIA Regs, the proposed development, as an industrial estate development on a site larger than 5 hectares (ha), constitutes a Schedule 2 development.
- 1.2.5 The formal requirements for the content of an accompanying ES are set out in Schedule 4 of the 2017 EIA Regs. Every report should provide a full factual description of a project's effects, but the emphasis of Schedule 4 is on the 'significant effects' to which a project is likely to give rise to. Other effects of little or no significance in relation to planning considerations need only brief reference to demonstrate that they have been considered. There is general guidance given on the definition of what constitutes a significant effect, but this is not exhaustive and much is dependent on expert opinion, including the views of regulatory authorities, as well as local conditions at the site.
- 1.2.6 The scope of the EIA that has been undertaken to inform the 2023 AESC Plant 3 ES (to which this NTS relates) adheres to that previously agreed with the relevant Statutory Consultees for the 2021 EIA that was undertaken to inform the ES for the Applicant's neighbouring AESC Plant 2 development.

Consultation

- 1.2.7 Owing to the commercial sensitivity and national importance of the proposed development, formal consultation has been restricted prior to submission. Whilst discussions have taken place with Sunderland City Council (SCC) and Statutory Consultees, as appropriate, wider consultation has been limited (e.g. community engagement has not been undertaken).

1.2.8 Informal consultation with SCC regarding the scope (i.e. the content) and preparation of the 2021 AESC Plant 2 ES was undertaken in both 2019 and 2021. As stated within paragraph 1.2.6, the agreed scope has been reapplied to the AESC Plant 3 ES.

Methodology

1.2.9 The assessment of impacts on the environment for each technical discipline typically considers the following:

- Site activities and / or sources of potential impact for that particular topic.
- Potential Effects occurring as a result of the construction and the operation of the proposed development, including cumulative effects.
- Mitigation measures, which may be embedded within the design of the proposed development or provided as additional measures.
- Residual Effects, which are those that remain once mitigation measures are assumed to be in place.
- Whether any monitoring or follow-up is necessary to ensure that mitigation remains effective and appropriate.
- Cumulative Impacts, which may occur in association with other aspects of the project or with other development projects that have been consented but not constructed or are awaiting determination.
- Any limitations to the assessment.

1.2.10 Assessment methodologies have followed those used for both the 2018 IAMP ONE EIA and the 2021 AESC Plant 2 EIA and are in accordance with industry best practice and standards. The assessments have been undertaken by experienced, qualified professionals.

1.2.11 The assessments typically consider the sensitivity (or value) of a receptor, the likely magnitude of impact anticipated as a result of the proposed development and the resulting effect, and whether the effect is considered to be 'Significant' or 'Not Significant' (in EIA terms).

1.3 Site & Scheme Description

The Site

1.3.1 The site lies wholly within the administrative area of SCC.

- 1.3.2 The site comprises an area of agricultural land located directly to the west and to the north of the AESC Plant 2 development. The overall area within the application redline boundary of the site is 42.39 ha in size.
- 1.3.3 The land is largely level, with only minor variations in elevation. The wider area comprises very gently undulating topography dropping gradually to the north. Further to the south, south of the River Wear, the land rises to a high point of 136m at the Peshaw Monument. The Usworth Burn is a minor watercourse that originates in south Washington, west of the site, and flows eastwards and northwards past the northern edge of the proposed development to a nearby confluence with the River Don before reaching Hylton Bridge.
- 1.3.4 The A1290 runs in an east-west direction to the south of the site, with two new junctions established to link with the new spine road ('International Drive'). The site incorporates an access track linking northwards to North Moor Farm, which will be demolished (with demolition works to be completed April 2024).
- 1.3.5 The site falls within Agricultural Land Classification² (ALC) Subgrade 3a (23.93 ha, 56.5% of the site) towards the north of the site and ALC Subgrade 3b (17.31 ha, 40.8% of the site) in the south of the site, with smaller areas of Subgrade 3b present in the north and northeast of the site and a small area of non-agricultural land (1.15 ha, 2.7%). The proposed built infrastructure will be situated upon 11.18 ha of Subgrade 3a BMV land, 12.76 ha of Subgrade 3b non-BMV land and 0.42 ha of non-agricultural land.
- 1.3.6 To the east of the site, construction is currently underway within the neighbouring IAMP sites, with three existing units present within IAMP ONE. Further within the immediate surroundings of the site, the existing Nissan works lie to the south of the A1290 and south-east of the proposed development, with agricultural land present to the west and to the north.
- 1.3.7 A high voltage overhead transmission line on lattice steel towers runs from south-west to north-east beyond the site's north-western boundary, having been diverted.
- 1.3.8 Whilst the closest residential property, North Moor Farm, is located within the site boundary, this is within the ownership of IAMP LLP, is vacant and will be demolished (with demolition to be completed April 2024). Other individual and groups of properties are scattered across the wider area, mainly to the north, north-east and

² Within the Agricultural Land Classification system, Grade 1 refers to excellent quality land, Grade 2 is very good quality, Subgrade 3a is good quality, Subgrade 3b is moderate quality, Grade 4 is poor quality and Grade 5 is very poor quality. Grades, 1, 2 and Subgrade 3a are classed as 'best and most versatile' (BMV) land; the others are classed as non-BMV land.

north-west along and off Follingsby Lane/ Downhill Lane, including Hylton Bridge and Hylton Grove Farms, Strother House Farm and East Farm, enclosed by the network of main roads encircling the site. Also within the wider area are the residential areas of Usworth and Sulgrave, within Washington new town, to the west, and Town End Farm and Hylton Castle, on the north-west edge of Sunderland, to the east.

- 1.3.9 The A1290 forms the southern boundary of the site. International Drive is located to the east of the proposed development, forming the eastern boundary of the AESC Plant 2 development. Further to the east of the site is the A19 (T), one of the region's key north-south routes. The A194 (M) runs from south-west to north-east, some 2.5-3km to the north-west of the site. Downhill Lane connects with the A184 to the north east of the site and leads onto Follingsby Lane to the north of the site. A network of 'A' roads and more minor roads also provide connections to and within the nearby settlements.

The proposed development

- 1.3.10 The proposed development consists of an industrial unit that is to house an electrode and battery manufacturing facility with the capacity to produce up to a maximum of 12 GWh of batteries per year. The tallest part of the development is on the north east of the factory building, the roof height here is set at 33m to ridge, with a small number of flues, perimeter handrails, and solar PV panels projecting beyond this point. The maximum height of associated flues is 40m located in the gantry area between the plant room and Plant 3 Building. The lower parts of the manufacturing plant roof are 26m and 18m to ridge and smaller ancillary stores, canopies, and the goods out area project out beyond the main footprint to provide relief to the building elevations. In addition to the battery manufacturing facility will be another industrial unit that will house an assembly and warehousing facility for storage and distribution, plus an office building, ancillary MEP plant rooms, gatehouse, car parking provision, bicycle and motorcycle shelter, HV substation, landscaping and drainage.
- 1.3.11 The required building footprint has been established by the demand of product output and requirements for the process equipment to provide. The total Gross Internal Areas (GIA) is 185,956 m². The facility will employ up to 1,911 staff consisting of both shift-based staff and day-based (office) staff.
- 1.3.12 Car parking will include up to 780 parking spaces (with 5% accessible and up to 10% electric vehicle (EV) charging), the bicycle and motorcycle shelter will include up to

80 spaces and there will be up to 75 spaces for heavy good vehicles (HGVs). Access to the site is to be from the A1290 via International Drive.

1.3.13 As per the neighbouring AESC Plant 2 development, the proposed AESC Plant 3 development will also manufacture lithium-ion battery pouch cells and modules for electric vehicle (and other applications).

1.3.14 The new AESC UK Headquarters building is intended to function as a central management point for the overall AESC scheme and, as such, has been positioned and orientated so as to provide a visual connection to the overall development and operations, and designed to act as a main entry focal point for visitors and staff.



Figure 2: Architect's oblique aerial visualisation of the development

1.3.15 A series of technical drawings have been prepared to support the detailed planning application and define the proposed form of the AESC Plant 3³. A selection of these, including the Masterplan (Drawing 201-P03-Proposed Site Plan and Drawing 205-P01-Proposed Landscape Plan), were used to inform the assessments reported in the technical chapters and are included at the rear of the ES. A full list of development plans is set out in the Planning Statement.

³ Please refer to Appendix 3.1 of the AESC Plant 3 Environmental Statement (WA, 2024).

- 1.3.16 A Design and Access Statement (DAS) is provided as part of this full planning application for the site. This details the appearance, heights and scale of the proposed development.
- 1.3.17 It is generally intended that the same palette of materials and colours will be applied to the buildings within the proposed development to visually harmonise the wider site. The elevations of the proposed development have been developed to compliment the material palette of the surrounding facilities. The roof of the manufacturing plant is to be expressed as two low-pitched barrels with photovoltaic panel arrays incorporated into the design. The roof of the assembly and warehousing building will be expressed as a singular low-pitched barrel with photovoltaic panel arrays also incorporated into the design. Where possible, external plant and process equipment are to be contained within buildings / dedicated ancillary plant rooms.
- 1.3.18 Buildings will be operated over a 24-hour seven-day week period and it is likely that external operational areas will require to be lit during the hours of darkness to the minimum levels required for their safe operational use. Buildings will incorporate the latest design specifications for energy efficiency and the use of sustainable resources.
- 1.3.19 A proposed landscape plan has been produced that balances the need to provide open habitats for farmland birds with the need to minimise impacts on landscape character and visual amenity. As part of the landscape design, the following are proposed:
- Existing hedging and trees will be retained (where possible) and protected against damage during construction. Additional planting using native hedgerow tree and shrub species will be implemented along the south-western, western and northern boundaries, supplementing existing planting.
 - Clusters of individual native trees and wildflower meadow will be created along a portion of the south-western boundary in order to optimise onsite biodiversity.
 - Wader scrapes will be created in the north-western extent of the site and flood meadow will be created at the north-eastern area of the site. The ecological enhancement area to the north of the site will include a wet woodland buffer.
 - Within the site, areas of species-rich neutral grassland and areas of shade-tolerant neutral grassland will be sown.
 - Wildflower meadow and mown verge will be planted along the access road.

- 1.3.20 As part of the proposed development, a Landscape and Ecological Management Plan (LEMP) will be prepared that will include details of how the landscaping scheme will be managed and maintained in the future.
- 1.3.21 A surface water design strategy has been established for the proposed development that will rely upon below ground gravity drainage networks to convey runoff to below ground attenuation tanks. The water will then be pumped in order to lift it to the level of the outfall and to manage discharge from the site at greenfield runoff rates. As the underlying clay soils at the site prevent the use of infiltration to discharge surface water to ground, it is necessary to discharge surface water runoff to watercourse. All runoff will be directed to the River Don via Usworth Burn, situated to the north of the site. Prior to discharge to the water courses, proprietary treatment systems will be used to treat the runoff and achieve the required water quality. Where appropriate, surface level 'green' SuDS features have been proposed.
- 1.3.22 A new drainage system will be provided for foul water originating from domestic flows from staff welfare and catering facilities, condensate from cooling plants and process effluent. At this stage, it is proposed that foul water from the proposed development will discharge into the existing foul water sewer situated beneath International Drive, which connects to a sewage pumping station that transfers sewage from IAMP ONE to a Northumbrian Water Limited (NWL) public sewer located to the west of Nissan. Should the system be unable to accept flows from the proposed development in its current state, the potential to upgrade will be considered. Should the system have insufficient spare capacity to, a dedicated onsite pumping station and a new offsite rising main, required to transfer the flows from the proposed development to a suitable location for discharge into the NWL network, will be considered.

Construction Methodology & Phasing

- 1.3.23 Subject to planning permission, construction of the proposed development is anticipated as commencing in 2024, with the proposed development operational by 2027. The hours (excluding deliveries) during which construction is anticipated to occur onsite are 07:00 - 18:00 hours on Mondays to Fridays and 08:00 - 17:00 hours on Saturdays, with no working on Sundays and Bank or Public Holidays.
- 1.3.24 Construction access to the site will be from the A1290 and International Drive.
- 1.3.25 A Construction Environmental Management Plan (CEMP) will be prepared prior to the commencement of works onsite. This will include any mitigation identified within the ES, in relation to construction activities, including measures to minimise

construction noise and control dust emissions from the site. The CEMP will include a Site Waste Management Plan (SWMP) and Dust Management Plan (DMP), setting out the measures by which construction can take place with minimal impact on the local environment.

1.4 Planning Policy Context

1.4.1 The following plans and guidance are primary material policy considerations relevant to this detailed planning application:

- The National Planning Policy Framework (2023).
- Planning Practice Guidance (2023) and as amended.
- The Adopted Development Plan, comprising:
 - Sunderland Core Strategy and Development Plan 2015-2033, adopted January 2020.
 - International Advanced Manufacturing Park (IAMP), Area Action Plan (AAP), adopted November 2017.

1.4.2 Following the approval of IAMP ONE Phase 2 application in June 2020, Sunderland City Council has undertaken consultation on a number of policy documents, including the Allocations & Designations Plan (ADP). It has also undertaken consultation on the following Supplementary Planning Documents (SPD):

- Draft Development Management SPD.
- Washington Meadows SPD Scoping Report.
- Local Wildlife Site Report.

Planning History

1.4.3 The first phase of IAMP, known as IAMP ONE, was granted planning permission in May 2018 for up to 156,840 m² of floorspace for automotive and advanced manufacturing uses (around 1.69 million ft²) (ref. no. 18/00092/HE4). This site lies within the Southern Employment Area at IAMP. To date, three buildings and the internal spine road (known as International Drive) have been completed, whilst the IAMP ONE ELMA has been created. A further planning permission was subsequently granted in June 2020 for a reconfiguration of land to allow the occupancy of larger units (up to 1m ft²) (ref. no. 20/00556/OU4).

1.4.4 The AESC Plant 2 application (ref. no. 21/01764/HE4) was granted planning permission in October 2021 and construction work is progressing onsite. Subsequent to receiving planning consent, amendments to the AESC Plant 2 scheme design were

proposed that necessitated the submission of a Section 73 application. The Section 73 AESC Plant 2 planning application (ref. no. 23/1542/VA4) was submitted to SSC in June 2023 and planning consent was granted in September 2023. The proposed (AESC Plant 3) development is further development at IAMP.

- 1.4.5 The part of the site known as IAMP TWO is the second and larger part of the IAMP development previously constituted a Nationally Significant Infrastructure Project (NSIP) that was to be delivered by a development consent order (DCO) application. The DCO application has since been withdrawn and planning consent for the ‘Early Infrastructure and Northern Employment Area’ applications (21/02807/HE4 and STC/1172/21/FUL) were approved in August 2023. These applications included an extensive area of land for landscape and ecological mitigation, referred to as the ‘IAMP TWO ELMA’.

1.5 Consideration of Alternatives

Alternatives

- 1.5.1 Consideration of the reasonable alternatives studied by the developer and a description of these is a requirement of 2017 EIA Regs. These must be reasonable and relevant to the proposed development; there is no policy requirement to consider alternative sites, nor can an application be refused based on the grounds that another site exists that may also be suitable for development. Typically, consideration of alternatives includes such aspects as a ‘Do Nothing’ option, potential alternative sites, designs, site accesses or alternative technologies.
- 1.5.2 In the case of the proposed development of the AESC Plant 3 site, the planning application is required to facilitate the shared use of the assembly and warehousing building and AESC headquarters office with the neighbouring AESC Plant 2 development. The application is for detailed planning consent and the type of industry that will be developed within the site boundary is known. On this basis, the alternatives being considered for the Proposed Development, within the context of the EIA, are as follows:
- Need for the proposed development: providing a description of the likely evolution of the site in the absence of the proposed development and setting out the need and for and benefits of the proposed development; and
 - Design and layout (i.e. the alternative design and layout options).
- 1.5.3 It is considered likely that, in the absence of the proposed development, the site will continue in its current use of providing ecological and landscape mitigation for the IAMP ONE developments. The objective of the proposed development is to improve

production of battery electric vehicles, which will contribute to the UK's target of transitioning current vehicle use to a lower emissions alternative. The new facilities will also create employment opportunities for around 1,000 staff, which could potentially increase to up to 1,911 new jobs at the site.

- 1.5.4 The site boundary has been set by various site-specific constraints. As part of the consideration of alternatives for the proposed development, alternative site layout options were considered. The building footprint needed to meet the demand of product output and the requirements of the process equipment to provide this demand was used to determine the optimum building orientation to provide safe and efficient site access, and suitable boundary treatment(s). Three layout options were considered, two of which were rejected as 'unviable' due to such reason as increased building footprint, redundant spaces, floodplain encroachment and increased encroachment into the green belt.
- 1.5.5 The site falls within existing green belt and a very special circumstances report has been prepared alongside the Planning Statement that accompanies the planning application. This provides a rationale as to the appropriateness of the site for the proposed development and the requisite release of the area of land from the green belt.

1.6 Air Quality

- 1.6.1 An air quality assessment has been completed that considered the potential air quality effects of the construction and operational phases of the proposed AESC Plant 3 development in relation to both human and ecological sensitive receptors. Included as part of this was a detailed assessment of potential air quality impacts as a result of emissions to air from the manufacturing processes and stack exhausts during operation.
- 1.6.2 A review of the baseline shows that existing pollutant concentrations within the local area are well below the air quality objectives and limit values.
- 1.6.3 During the construction phase of the proposed development, specific mitigation measures will be adopted to control and limit potential dust generation. These will be detailed within a Construction Environmental Management Plan (CEMP) and a Dust Management Plan (DMP), which will ensure that the potential for dust and fine particulate matter arising from construction activities will be minimal and will be controlled.
- 1.6.4 The road traffic assessment that has been undertaken to assess the potential impacts of traffic movements (during both the construction and operational phases

of the proposed development) found that any impacts at existing sensitive receptor locations would be **Not Significant**.

1.6.5 In relation to process emissions, the proposed development has been designed such that the maximum modelled process contributions and predicted environmental concentrations do not exceed the relevant air quality objectives for the existing sensitive receptors (i.e. human and ecological) considered. Taking into account the process contributions and (for both short-term and long-term emissions) the predicted environmental concentration, the overall air quality effect is assessed as **Not Significant**.

1.7 Noise

1.7.1 A noise and vibration assessment has been undertaken for the construction and operational phases of the proposed development to assess potential impacts upon the nearest existing sensitive receptors, the closest of which is situated circa 310 m from the site boundary.

1.7.2 A noise survey was undertaken for the wider IAMP ONE application, the data from which has been used to inform the current assessment. The baseline data was used to establish thresholds for construction and operational noise. At Hylton Bridge Farm , distant road traffic on the surrounding road network (including on the A1290, A19 and A184) were the dominant noise sources. Noise from the Nissan plant was also audible and included a constant, low-level, low-frequency droning noise and reverse alarms. At the Rustica Trattoria & Inn, road traffic was the dominant noise source. Industrial noise from the Nissan plant was also audible.

1.7.3 Owing to the distance between these two sensitive receptors and the site, potential impacts as a result of noise and vibration due to activities associated with construction are assessed as **Not Significant**. The use of current best practice working methodologies will, however, be adopted during the construction phase to ensure that any potential impacts that may occur are reduced as far as practicably possible.

1.7.4 During the operational phase of the proposed development, the character of the residual sound (which will contain broadband noise from road traffic and industrial noise from the Nissan plant to the south) and the character of the specific sound of the proposed development will be very similar. The proposed development is, therefore, considered to be in keeping with the immediate area.

1.7.5 The following mitigation measures will be adopted as part of the development design: excluding the boiler units, stacks will be limited to 70dB Lw, external plant

specified to reduce noise levels; silencers applied (where needed) to plant to attenuate tonal components; building access points to remain closed (where possible) when not in use; and white noise reversing alarms for movements within yards may be specified. With this in place, the potential impacts upon the sensitive receptors as a result of noise and vibration due to activities associated with the daily operation of the proposed development are assessed as **Not Significant**.

1.8 Landscape & Visual Impact

1.8.1 A series of technical drawings have been prepared to support the detailed planning application and define the proposed form of the AESC Plant 3 development, and are included within Appendix 3.1 of the ES. As part of these, a proposed landscape plan has been produced to minimise impacts on landscape character and visual amenity. A Landscape and Ecological Management Plan (LEMP) will be prepared that will include details of how the landscaping scheme will be managed and maintained in the.

Landscape character and landscape resource during construction

Effects on site elements and perceptual aspects

1.8.2 Construction operations are likely to result in the loss of the existing internal trees and internal field boundary hedgerows, but roadside boundary planting would be retained (other than where access is proposed). Changes to landform are expected to be minimal. Changes to the landscape resource would have a local effect on landscape character and would be compensated for in the longer-term with the planting of replacement trees and hedgerows. Overall, effects are assessed as **Not Significant**.

Landscape character

1.8.3 Construction operations would give rise to direct, temporary effects on the Coalfield Lowland Terraces (Usworth Lowland) Landscape Character Type / Landscape Character Area. Overall, the effects on the landscape character of the site and its immediate surroundings are assessed as **Not Significant**. Effects on the landscape character of the wider area of the Usworth Lowland Landscape Character Area and the Urban Fringe, Boldon Fell Landscape Character Type from construction operations would be indirect and limited to changes associated with the noise of construction plant and perception of construction operations. Overall, effects are assessed as **Not Significant**.

Operational effects on landscape character and the landscape resource

Effects on site elements and perceptual aspects

- 1.8.4 Changes to the scale of the site will result from its development as a part of the wider AESC and IAMP development. The medium scale of the existing landscape is likely to increase to large scale with the development of two large buildings. The scale of the wider landscape is influenced by the presence of the existing and under-construction large and medium size buildings within the previous phases. Effects are assessed as Significant, reducing to **Not Significant** in the long-term as the proposed planting within the development, as well as that being brought forward as part of the wider masterplan, which is being brought forward as part of the Early Infrastructure and Northern Employment Area application (i.e. the IAMP TWO ELMA⁴) establishes and matures helping to integrate the development into the surrounding landscape in the long-term.
- 1.8.5 Enclosure within the area will alter as a result of the proposed development. Existing hedgerows within the site would be removed, but this will be partially offset by gapping up retained boundary hedgerows and planting within the site. Additional enclosure will be provided by the development of the proposed industrial buildings. Effects are assessed as Significant, reducing to **Not Significant** in the long-term as the proposed IAMP TWO ELMA planting establishes and matures and helps integrate the development into the surrounding area.
- 1.8.6 Lighting will form part of the site development that will accord with the principles of the Design Code to maintain consistency of appearance and effect on the character of the landscape. It is intended that the northern and western boundaries of the site, including any building facades facing towards these directions, be kept as dark as practicable to minimise adverse effects on species and habitats. Overall, effects are assessed as **Not Significant**.
- 1.8.7 The loss of some of the existing trees and hedgerows within the site will be compensated for through the planting of extensive areas of replacement native trees and scrub, and hedgerows / hedgerow trees within the IAMP TWO ELMA. Once established, the planting will contribute positively to the landscape character of the local area. Overall, effects of the developed site on the landscape resource of the local area are assessed as Significant. Effects would reduce with time to become **Not Significant** as proposed planting within the development and that which is to be brought forward as part of the wider masterplan (i.e. IAMP TWO ELMA) establishes

⁴ Planning permission was granted for IAMP TWO (in August 2023), which includes a central area of land for 'ecological and landscape mitigation' (ELMA) of 75.82 ha.

and matures; thereby helping to integrate the development into the surrounding landscape in the long-term.

Effects on landscape character

- 1.8.8 The proposed development would result in permanent, direct effects on part of the Coalfield Lowland Terraces (Usworth Lowland) Landscape Character Type / Landscape Character Area. Overall, the effect would initially be Significant, but would then in the long-term reduce to become **Not Significant** as planting within the development and wider (IAMP TWO ELMA) masterplan establishes and matures, helping to integrate the development into the surrounding landscape. Effects on the landscape character of the wider area of the Usworth Lowland Landscape Character Area and the Urban Fringe, Boldon Fell Landscape Character Type would be indirect and limited to changes to the skyline, associated with the presence of a tall, large-scale building on the horizon to the south. Overall, effects are assessed as **Not Significant**.

Effects on visual receptors during construction

- 1.8.9 Given the nature of the site and limited presence of near-distance receptors, the assessment of effects on visual amenity was limited to operational effects. Any adverse effects of construction operations on visual amenity for receptors in the area of the site would be short-term and temporary. As such, it is considered that this **would not give rise to significant effects**.

Effects on visual receptors during operation

Residential receptors

- 16.1.1 Residential receptors with scope for views of the site include the north-eastern settlement edge of Washington to the west of the site. Views from properties on the edge facing east are partially screened by existing tree cover on the edges of the disused railway line and any views towards the site would be seen primarily from upper floor windows. Where visible, the proposed development within the site would be seen in front of and blocking views of the AESC Plant 2. Balancing the distance to the site, intervening vegetation and the presence of AESC Plant 2, the effect on visual amenity for residential receptors is assessed as **Not Significant**.
- 16.1.2 For the properties at Hylton Bridge Farm, there is limited visibility towards the site due to intervening farm buildings and vegetation. Any views towards the site from within the general area of these properties would (at present) look across existing farmland and include the existing, under construction buildings within AESC Plant 2. The factory building of the proposed development would be sited 600 m away and

seen alongside Plant 2, but would be a noticeable difference within this general view and the potential effects are assessed as **Significant**.

- 16.1.3 From the two, two-storey properties on the roadside at Hylton Grove Farm, there are views south towards the current development at AESC Plant 2. There are also views south-west towards the site. The proposed development would be visible and seen alongside Plant 2 and the potential effects are assessed as **Significant**. From the properties of East House and Strother House Farm, Plant 2 is visible but partially screened by intervening vegetation. The proposed buildings would be seen in front of Plant 2 and would be larger, and the potential effects are assessed as **Significant**. For the properties in the Down Hill Farm area, views of the completed development would form part of the wider view of the surrounding developments, located beyond and marginally taller than these, and the effects are assessed as **Not Significant**.

Users of transport routes and rights of way

- 1.8.10 There would be near-distance views of the completed development from the immediately adjacent sections of the A1290 as it approaches and passes the site. These would be of short duration, transient and varying from more distant, direct views to near-distance and oblique views of the site, seen in the context of Plant 2 and surrounding existing industrial development.
- 1.8.11 For eastbound road users within sections of the road east of the IAMP ONE access road, the proposed buildings within the site would be the first elements of the development to be seen; occupying part of the forward view, albeit intermittently screened by roadside trees but increasing in prominence as the road users get closer to the site. Overall, having regard for the presence of the completed / under construction developments and the limited duration of the view, the effect on visual amenity for receptors is assessed as **Not Significant**.
- 1.8.12 There would be **no views of the proposed development from the A19(T)**. From the overbridge at the Downhill Lane Junction with the A19(T) and from elevated sections of Downhill Lane to the north-east of the site, any views of the proposed development would be difficult to discern beyond the built development within the existing and under construction developments. Overall, effects are assessed as **Not Significant**.
- 1.8.13 From sections of Follingsby Lane to the north-north-west, north and north-east of the site, there would be oblique views, interrupted in places by roadside hedging and tree cover. The site would be seen in conjunction with the wider developments. Overall, effects are assessed as **Not Significant**.

- 1.8.14 There would be views of the completed development from the BOAT / footpath between Follingsby Lane and East House, seen in closer proximity than, and in conjunction with, the wider development. The proposed building within the site would break the skyline to a noticeably greater extent than the existing buildings and potential effects are considered to be **Significant**.
- 1.8.15 Distant views from the footpath to the east and north-east of Strother House Farm towards the proposed development would be interrupted by intervening trees and hedgerows. The proposed buildings within the site would break the skyline, sitting in front of and alongside existing development. Overall, effects are assessed as **Not Significant**.
- 1.8.16 From the dismantled railway line to the east of Sulgrave and Usworth Hall (if this were to be brought back into service), there would be transient and oblique views of the completed development seen in the context of the wider developments. Overall, effects are assessed as **Not Significant**.
- 1.8.17 For other roads and rights of way within the study area, any views of the proposed development would typically be distant and interrupted by intervening tree cover and development, and are assessed as **Not Significant**.

Users of formal and informal open space and recreation areas

- 1.8.18 For visitors to the Penshaw Monument, there would be distant views northwards of the completed development. This would, however, be seen in the context of the wider industrial development areas and the effect is assessed as **Not Significant**. Views towards the site from the North East Aircraft Museum, are well screened by intervening tree cover (in the area of the junction with the A1290) in addition to the buildings being constructed within the consented IAMP ONE Phase One site. As such, there would be **no effect on visual amenity for visitors to this location**.

Appraisal of Key Views

- 1.8.19 The following six viewpoints were selected to represent locations from where the site is most visible for the greatest numbers of visual receptors:
- Viewpoint 1: view from Follingsby Lane at Strother House Farm;
 - Viewpoint 2: view from the BOAT/footpath at East House;
 - Viewpoint 3: view from the A1290 to the west of the site;
 - Viewpoint 4: view from Follingsby Lane to the north-east of the site;
 - Viewpoint 5: view from Follingsby Lane to the north-east of the site; and
 - Viewpoint 6: view from Follingsby Lane to the north-east of the site.

- 1.8.20 For most receptors, following the establishment of planting and the assimilation of the proposed development into the general area, the adverse effect upon visual amenity for all views was assessed as **Not Significant** in the long-term.
- 1.8.21 For Viewpoint 1 and Viewpoint 2, there would be middle distance views of the completed development in front of Plant 2, appearing as a noticeably larger development. The mass and height of the buildings within the site would block views towards the horizon and would be seen against the skyline from these locations, and effects are assessed as **Significant**.
- 1.8.22 The Significant effects may reduce to Not Significant in the long-term with the assimilation of the development into the general area. Although not fully screening the building from view, the establishment of intervening planting within the IAMP TWO ELMA would also assist in softening views into the site.
- 1.8.23 For Viewpoint 5 and Viewpoint 6, the effect(s) for residents at Hylton Grove Farm and Hylton Bridge Farm, respectively, would be **Significant** due to built development in closer proximity (occupying more of the horizontal field of view) and the taller part of the building breaking the skyline.

The Green Belt

- 16.1.4 The Green Belt is a planning designation aimed at restricting urban sprawl and encroachment of the countryside, prevent coalescence, preserve the setting and special character of historic towns, and to assist with urban regeneration. The key characteristics of Green Belts are their openness and their permanence. The effect of the proposed development on the spatial and visual openness of the Green Belt has been considered (for additional details, reference should be made to the 'Green Belt: Very Special Circumstances Report that accompanies the planning application).
- 16.1.5 The main aspects of the proposed development that would affect the openness of the Green Belt are the large scale of the proposed buildings themselves. The proposed development would result in **Significant** adverse landscape and visual effects within approximately 1 km of the proposed development. Some of these would reduce in time to become **Not Significant** as the proposed planting to the IAMP TWO ELMA land to the north establishes and matures softening the development and helping to integrate it into the surrounding area.
- 1.8.24 The proposed development would also initially result in localised **Significant** adverse effects on the visual and spatial openness of this part of the Green Belt, but as the Green Belt to the north would remain and would be enhanced through the extensive area of ecology and landscape mitigation (i.e. the IAMP TWO ELMA), it is considered

that the long-term and permanent effects would be **Not Significant**. The EMLA land would create a strong but soft boundary to what would become the new Green Belt boundary to the north of the site. The new boundary would follow the River Don tributary that forms the northern site boundary. The current Green Belt boundary within the site is defined by the overhead electricity transmission line on steel towers that previously ran through the eastern area of the site and has recently been diverted round the eastern and northern boundaries of the site.

1.9 Waste

1.9.1 An assessment has been undertaken for potential significant effects of the development of the AESC Plant 3 site (during construction and operation) on waste management.

1.9.2 The proposed development will require the levelling and grading of the existing site, construction of the new buildings, infrastructure and landscaping. . The assessment focused on the likely quantities and waste types arising from these activities and how they can best be managed. Included as part of this was the consideration of both hazardous and non-hazardous wastes.

1.9.3 It is expected that the majority of waste arisings will be sent for disposal to local landfill sites or to suitable offsite locations for reuse. The anticipated waste volumes form a small fraction of regional waste generation and capacity. Any hazardous waste arisings would be dealt with by a specialist hazardous waste operator and an appropriate number of hazardous waste transfer station sites and metal recycling sites have been identified for storage prior to onward treatment. **No significant environmental effects** have been identified as a result of waste arisings and management practices in relation to the proposed AESC Plant 3 development.

1.10 Water Resources

1.10.1 The site is located within the Northumbria River Basin but is itself split between two local catchments. The majority of the site drains into the Usworth Burn and, eventually, into the River Tyne. The remainder feeds into the headwaters of the Hylton Dene Burn and through to the River Wear.

1.10.2 In terms of the water environment, the Usworth Burn (minor watercourse) flows past the northern edge of the proposed development to a confluence with the River Don and the Hylton Dene Burn (minor watercourse) passes through Hylton east of the A19, eventually out-falling into the River Wear. Additionally, there are also field ditches and land drains (serving the former farmland on and near by the proposed development), IAMP surface drainage system (serving the project immediately east

of AESC Plant 3 and includes the surface drainage from Plant 2) and any such shallow groundwater that may be present onsite.

- 1.10.3 Other than the North Moor Farm complex, the site is currently undeveloped. The land is poorly permeable and surface ponding in low spots during or after prolonged wet weather is a common occurrence. The local water table beneath the site is heavily constrained by the ground conditions and not amenable to a free flow of groundwater near the surface. The typical soil profile on site is that of glacial till and/or Pelaw clay underlying the topsoil, with mudstones and sandstones forming the bedrock.
- 1.10.4 The assessment found that, with appropriate mitigation in place, the scale of potential effects was no greater than negligible. As such, effects from the proposed development on the water environment would be **Not Significant**. The Flood Risk Assessment & Drainage Strategy that has been prepared found that the majority of the site is located within Flood Zone 1 (less than 0.1% chance of flooding every year) from fluvial flooding. There is very low flood risk from groundwater or sewer flooding and no risk from artificial sources. A detailed surface water design strategy has been designed and with the proposed site-specific mitigation measures in place, the risk level has been assessed as low. Overall, for Water Resources, there are **no significant environmental effects** identified in terms of changes to the hydrological and hydrogeological regime and / or potential pollution and degradation in water quality.

1.11 Ground Conditions

- 1.11.1 The superficial deposits at the site relate to Alluvium in the north, Pelaw Clay Member, Tyne and Wear Complex and Glacial Till, and the underlying Bedrock consists of the Pennine Middle Coal Measures Formation. The Pelaw Clay Member and the underlying Glacial Till are identified as Unproductive Strata, and the Alluvium and Pennine Middle Coal Measures as Secondary A Aquifers.
- 1.11.2 The site is located within a coal mining reporting area, but is not located in a development high risk area and there are no recorded mine entries on or near the site. Whilst Made Ground is unlikely to be present across most of the site, some localised pockets may be present. The previous and current uses at the site are unlikely to have resulted in widespread contamination of soil and groundwater, but there is potential for localised contamination associated with the storage of materials, vehicles and plant. The site is not located in a groundwater Source

Protection Zone and the nearest surface water course is the River Don, which is located to the north of the site.

- 1.11.3 The Phase 1 Preliminary Risk Assessment that has been undertaken did not identify the potential for significant widespread contamination and ground gas generation, but additional investigation will also be undertaken at the site to further clarify the risks associated with potential contamination. With this and the adoption of best working practices throughout the construction phase, any construction phase impacts would be negligible and **Not Significant**. Any operational phase impacts to soil and groundwater would be negligible to minor beneficial and **Not Significant**.

1.12 Ecology & Biodiversity

- 1.12.1 The location of the AESC Plant 3 development is located within the ELMA and overlaps with the application boundary for the AESC Plant 2 development.
- 1.12.2 The land within the redline application boundary for AESC Plant 3 comprises former agricultural land and includes a combination of species of poor neutral grassland and modified grassland fields, hedgerows and mature trees, scrub, ditches, a stream, buildings associated with North Moor Farm and areas of hard standing and unvegetated unsealed surface in the form of bare earth and hardcore access tracks. There are no invasive species present within the site. The habitats present are common within the wider landscape and readily replicated and, as such, are of site / local value, only.
- 1.12.3 The habitats support a number of over-wintering bird species, including Red-listed Birds of Conservation Concern (BoCC) species, Amber-listed BoCC species and Green-listed BoCC species, and the site is considered to be of District value for the overwintering assemblage. The habitats also support a number of breeding bird species, including Red-listed, Amber-listed and Green-listed BoCC species. Some of the species present are listed on Annexe 1 of the Birds Directive (2009) and Schedule 1 of the Wildlife & Countryside Act 1981 (as amended). The site is considered to be of County value for the breeding assemblage. Barn owl is known to breed within the wider area and hold a home range across the site.
- 1.12.4 The site supports limited bat activity, the majority of which pertains to common pipistrelles with some pertaining to soprano pipistrelles and Nathusius' pipistrelles also recorded. The buildings onsite are considered to be of negligible value for roosting bats and the trees onsite are considered to be of local value to roosting bats. Overall, the site is considered to be of local value to bats.

1.12.5 The assessment has considered potential impacts to ecology receptors arising from both the proposed AESC Plant 3 development and the adjacent AESC Plant 2 development. Overall, it is considered that, subject to suitable mitigation measures and compensation provisions⁵, adverse effects to the ecological features considered would be **Not Significant**. On the assumption that such suitable measures / provisions can be secured, enhanced and monitored, there will be **no significant residual effects** and the scheme would be delivered in conformity with legislative and policy considerations.

1.13 Access & Transport

1.13.1 Consideration has been given to the potential access and transport impacts of the proposed development during construction and operation in relation to severance, driver stress and delay, pedestrian and cyclist amenity, pedestrian and cyclist delay, fear and intimidation, and highway safety.

1.13.2 Primary mitigation measures are inherent to the design of the proposed development to provide increased capacity. Tertiary mitigation measures identified as part of the assessment include the preparation of a Construction Traffic Management Plan and Travel Plan for the proposed development. Following a screening process, the severity of the potential environmental effects for the construction and operational phases of the proposed development have been assessed. During construction, the maximum residual impact is minor adverse (**Not Significant**). During operation, the maximum residual impacts is negligible (**Not Significant**). In terms of potential inter-cumulative impacts, no significant effects have been identified.

1.13.3 Overall, the most severe environmental effect for the construction and operational stages will be minor adverse (**Not Significant**).

1.14 Climate Change

1.14.1 The potential impacts of the proposed development upon the climate from greenhouse gas (GHG) emissions over the project's assumed lifetime have been

⁵ Sunderland City Council's 'Proposed Delivery Model for the provision of Biodiversity Net Gain' (Cabinet Meeting, 14 March 2024) states that "...the Cabinet is recommended to:

- Approve the principle of the use of appropriate Council sites for the delivery of BNG and authorise the Executive Director of City Development, in consultation with the Deputy Leader and the Director of Finance, to identify and determine which Council sites shall be made available for BNG.
- Authorise the Director of Finance, in consultation with the Executive Director of City Development and the Cabinet Secretary, to grant leasehold interests on such terms as are approved (including where appropriate the grant of rent concessions) to relevant third parties of Council land for the delivery and management of BNG".

considered, along with the potential impact of the changing climate upon the proposed development. The proposed development's absolute emissions were modelled with embedded mitigation in place. Two potential scenarios were considered, consisting of 'Scenario A - with gas boilers' and 'Scenario B - with all-electric heating'.

- 1.14.2 Scenario A has a residual reliance on the combustion of fossil fuel to meet the majority of the required operational energy demand, whereas Scenario B represents the shift to all electric to meet the energy demands for the proposed development that will also benefit from the decarbonisation of the national grid. Scenario A would likely have a moderate adverse (**Significant**) effect in the long-term, whilst Scenario B would have a minor adverse (**Not Significant**) effect in the long-term. Scenario B will be the preferred option as far as is reasonably practicable so that the proposed development can demonstrate a contribution to the UK's net zero ambition. The proposed development will comply with current 2021 Building Regulations and meet the minimum emissions targets as set within national and local policy for buildings constructed before the end of 2026. However, the proposed development falls short of fully contributing to the UK's trajectory towards net zero and the residual operational effect for the uses proposed is moderate adverse (**Significant**).
- 1.14.3 In terms of potential impacts upon the climate from GHG emissions, with embedded mitigation in place, the proposed development's absolute whole life cycle emissions were modelled to be around 34% below the sectoral business as usual baseline based upon the assumption that roof-top solar PV and heat pumps for space heating will be installed; relative emissions over the assumed 60-year lifetime of the proposed development were estimated at between -31,853 to -26,284 tCO₂e.
- 1.14.4 In terms of climate resilience, it is not possible to eliminate every risk associated with climate change, but through intelligent design, preparation and responsible construction and operation, these risks will be minimised. The assessment focussed on reducing these risks in key areas and has taken into consideration both the health and safety of the users of the proposed development and the resilience of the proposed development itself to future climate impacts. With the implementation of the embedded mitigation measures the residual effects are deemed to be minor adverse (**Not Significant**).

1.15 Archaeology & Cultural Heritage

- 1.15.1 Whilst construction activities associated with the proposed development will result in the loss of two heritage assets, some geophysical anomalies of probable

archaeological origin. The mitigation measures will allow preservation by record (accessible via archive). The construction phase will also result in indirectly effects to the settings of four post medieval farmsteads and a Grade II listed road bridge (within the wider area). These would be permanent, continuing into the operational phase. With the proposed mitigation measures in place, the residual effect on heritage assets would be lessened. Overall, it is considered that effects upon archaeological and heritage assets as a result of the proposed AESC Plant 3 development would be **Not Significant**.

1.16 Soils & Agricultural Land

- 1.16.1 The site is 42.39 ha in size, of which 41.24 ha is agricultural land and 1.15 ha is non-agricultural land. Of the 41.24 ha agricultural land, 23.93 ha is Grade 3a BMV land and 17.31 ha is Grade 3b non-BMV land. The soils across the site belong to the Foggathorpe 1 soil association and range in texture between medium to heavy clay loams and clays, with fine sandy loam and sandy clay loam textures also recorded. The topsoil of the site is best described as a medium clay loam, with one occurrence of each of the following textures: heavy clay loam, sandy clay loam and fine sandy loam. The subsoils are best described as heavy clay loam and clay textures, with one occurrence of each of the following textures: medium clay loam and sandy clay loam.
- 1.16.2 The proposed built development will occupy 24.37 ha of land. Associated construction activities will result in a long-term permanent loss of 24.37 ha of agricultural land (11.18 ha Subgrade 3a BMV and 12.76 ha Subgrade 3b non-BMV) and 0.43 ha of non-agricultural land. It is not possible to mitigate the loss and the effect is considered to be moderate to major adverse (**Significant**). Of the 42.39 ha, however, 17.30 ha of agricultural land (12.75 ha Subgrade 3a BMV land and 4.55 ha Subgrade 3b non-BMV) and 0.72 ha of non-agricultural land will be retained for onsite green spaces. Taking the proposed embedded mitigation measures into account, the effect to the retained land is minor adverse (**Not Significant**). During the operation, it is expected that there would be no further discernible impacts upon 'land' and any effects would remain minor adverse (**Not Significant**).
- 1.16.3 In terms of the onsite soils resource, best working practice will be adopted (including the implementation of the Soil Management Plan) during the construction phase to reduce the risk of potential damage to the soils resource. With these in place, the effect would be minor adverse (**Not Significant**). For green space, the effect would be moderate to major adverse (**Significant**). During operation, however, it is expected that there would be no further discernible impacts in terms of damage to the soil resources and, as such, any effects would be minor adverse (**Not Significant**).

1.16.4 In terms of the potential loss of the onsite soils resource, the adoption of best working practice and the Soil Management Plan will reduce the risk of this to a minimum. During the construction phase, for areas of 'built environment' and 'green spaces', the effect would be minor adverse (**Not Significant**). During operation, it is anticipated that there would be no further changes to the soils remaining in-situ and any effects would remain minor adverse (**Not Significant**).

1.17 Socio-economics

1.17.1 The socio-economic assessment has considered the potential impact of the proposed AESC Plant 3 development upon employment and economic output during the construction and operational phases, as well as local market, commuting and deprivation within the area during operation.

1.17.2 In terms of employment within the local and wider Area of Influence (AOI) during construction, it is anticipated that the effect of the proposed development would be short-term moderate beneficial (**Significant**). With regards to economic output during construction, it is anticipated that the effect of the proposed development would be short-term moderate beneficial (**Significant**) effect.

1.17.3 In terms of employment during operational, it is anticipated that the effect of the proposed development would be permanent moderate beneficial (**Significant**). With regards to economic output during operational, it is anticipated that the effect of the proposed development would be permanent moderate beneficial (**Significant**) effect.

1.17.4 In terms of the labour market of the local impact area, the effect of the proposed development is anticipated to be permanent minor beneficial (**Not Significant**) effect. With regards to in and out-commuting within the local AOI, the effect of the proposed development anticipated to be permanent minor adverse (**Not Significant**). In terms of deprivation within the local and wider AOI, the effect of the new employment opportunities generated by the proposed development is assessed as permanent minor beneficial (**Not Significant**).

1.18 Vulnerability to Major Accidents & Disasters

1.18.1 An assessment has been carried out for the vulnerability of the proposed development to major accidents and disasters. This has considered the scope for the proposed development to be vulnerable to any existing, albeit low-likelihood, environmental hazards that would introduce (or increase) the risk of adverse effects on sensitive receptors (people and the environment). Construction and operational effects have been considered separately; cumulative effects (with IAMP ONE, AESC

Plant 2 and IAMP TWO, and the other proposed developments) have also been assessed.

- 1.18.2 The assessment has considered natural and man-made / industrial hazards and mitigation measures are identified (where required). The assessment concluded that, with the appropriate measures to control such aspects as dust dispersion, fire suppression, uninterrupted power supply and flood risk *etcetera*, the vulnerability of the proposed development to major accidents and disasters, including cumulatively with other developments, is considered to be very low to negligible (**Not Significant**).

1.19 Cumulative Effects

- 1.19.1 An assessment of the potential for the proposed development to result in cumulative effects has been undertaken. This includes consideration of the combination of environmental aspects associated with the proposed development, itself, known as intra-cumulative effects, and the combination of the proposed development and other developments within the local area, known as inter-cumulative effects. The other developments considered are listed within Table 2.5 in Chapter 2 of the Environmental Statement and include the wider areas of IAMP ONE Phase One, the AESC Plant 2 development and IAMP TWO, as well as others within the local area. The proposed development is considered to have very limited scope for significant cumulative effects (either intra-cumulative or inter-cumulative effects) in relation to the natural environment, and people and property of the area. The only potential cumulative effects relate the properties at Hylton Bridge and Hylton Grove Farms, for which adverse cumulative visual effects have been identified.

1.20 Summary

The proposed development of the AESC Plant 3 site has been assessed for its potential effects on the environment of the local area, with only a limited number of Significant effects identified. These primarily relate to landscape and view and are anticipated to reduce to Not Significant over time. Significant adverse effects will remain in terms of visual amenity for the occupants of properties at Hylton Bridge Farm, Hylton Grove Farm, Strother House Farm and East House, and for users of the BOAT / footpath from Follingsby Lane to East House. With the implementation of the mitigation measures proposed within the ES, no other Significant residual effects (including cumulative effects) on the natural environment or on the people and property of the area have been identified. **Overall, it is considered that the effects of the proposed development can be suitably mitigated such that there would be no unacceptable level of harm to the environment of the local area.**