

**CONSTRUCTION OF GREENHOUSES
AT WICKS FARM FORD ROAD ARUNDEL
WEST SUSSEX**

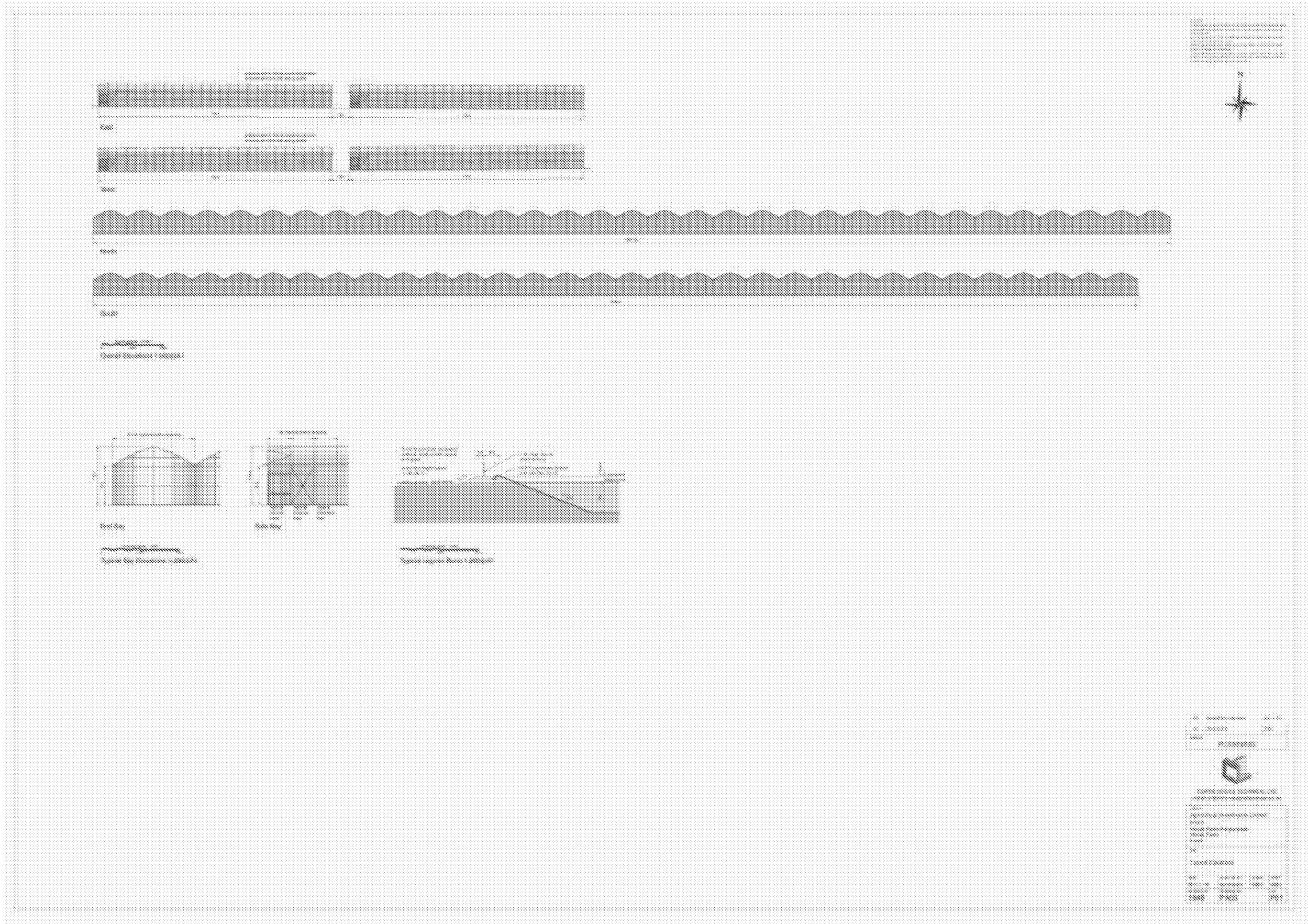
LANDSCAPE AND VISUAL IMPACT ASSESSMENT: APPENDICES

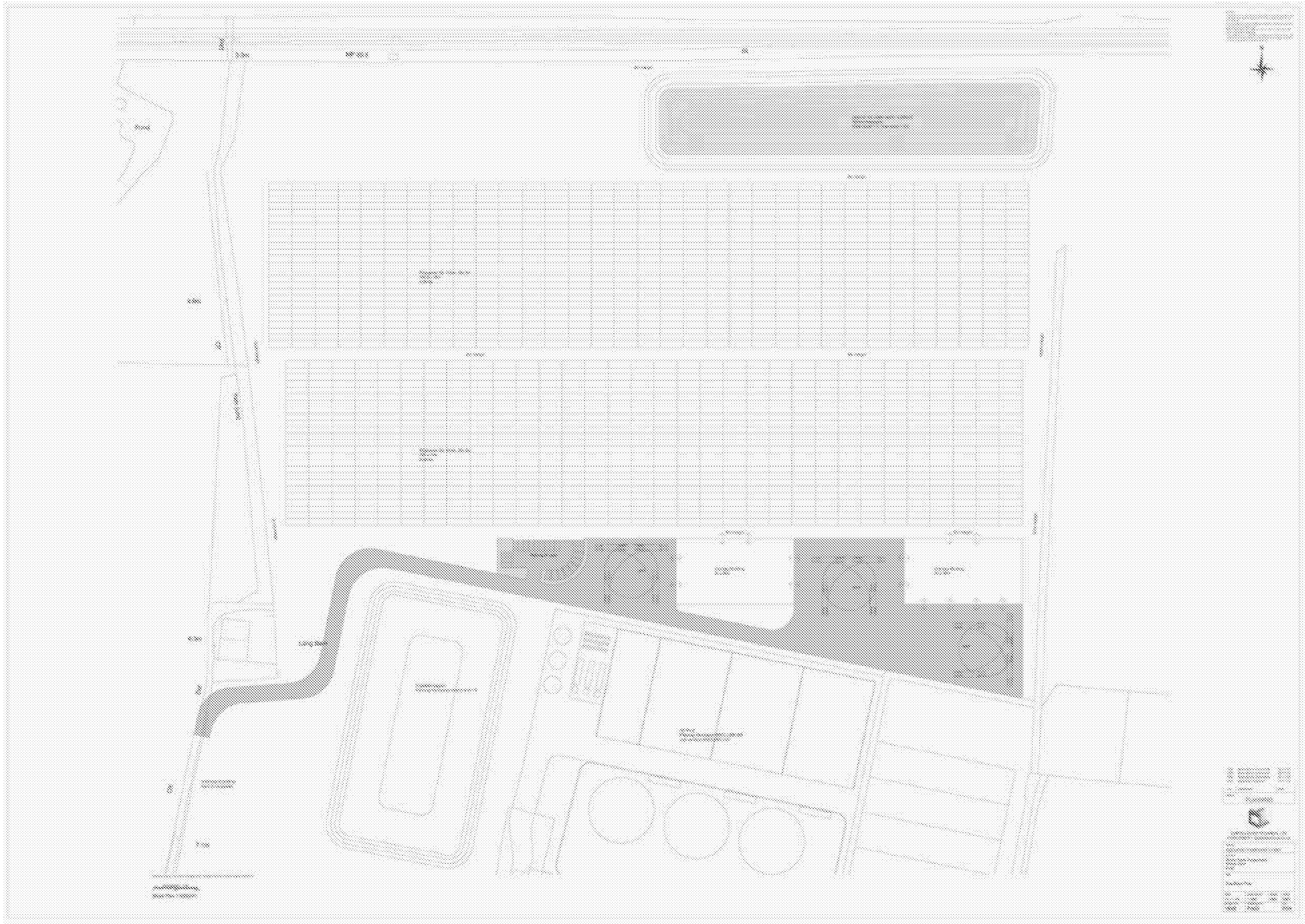
PREPARED FOR AGRICULTURAL INVESTMENTS LTD

David Hares Landscape Architecture
4 Northgate Chichester PO19 1BA



APPENDIX 1: GREENHOUSE PROPOSALS





APPENDIX 2: RELEVANT PLANNING POLICY: EXTRACTS FROM LOCAL PLAN

Policy HOR DM1 : Horticulture

1. New glasshouse, polytunnel and associated packhouse development will be permitted provided that:

- a. It is of a height and bulk which would not significantly damage the character or appearance of the surrounding landscape, unless it can be demonstrated that the need for a larger scale development is outweighed by the economic benefit of the scheme to the rural economy;
- b. It relates sympathetically to the natural, built and historic environment;
- c. Pollution to soil, water or air generated from the development into the surrounding environment, including the cumulative effects, is within regulated acceptable limits;
- d. Long public views across substantially open land are retained where the landscape value is defined as major or substantial for the corresponding Landscape Character Area in the Arun Landscape Study
- e. Adequate water resources are available or can be provided (ie. above ground reservoirs);
- f. Adequate surface water drainage capacity exists or can be provided as part of the development;
- g. Vehicular access from the site to the road network is adequate and uses roads capable of accommodating the vehicle movements likely to be generated by the development without detriment to highway safety and the residual cumulative impact to residential amenity is not severe
- h. There is minimal impact on health or general amenity resulting from internal artificial lighting after 6.00 pm on the occupants of nearby residential properties and minimal impact on the appearance of the site in the landscape by the minimisation of light spillage and glare to keep the natural environment intrinsically dark at night
- i. ; Noise levels resulting from machinery usage, vehicle movement, or other activity on the site, which when measured against the existing ambient noise levels in the locality would not be likely to unacceptably disturb occupants of nearby residential properties or would not be likely to adversely affect enjoyment of the countryside
- j. Any glasshouse structure(s) and/or polytunnel(s) and or/packhouse(s) deemed redundant to the horticultural or agricultural industry on the development site, are removed and the land is remediated from any contaminated material(s) and the land is used only for the direct diversification of horticulture or other productive green environment or a countryside-based enterprise activity which supports the rural economy. Council will impose this through planning conditions and/or use planning obligation agreements
- k. Proposals include full details of new landscaping, screening and of any trees or vegetation to be retained on the site; and
- l. The applicant has submitted sustainability and options appraisals, mitigation measures, and a soil resources plan for the development site.

APPENDIX 3: TERMINOLOGY.

LANDSCAPE CHARACTER

Landscape character: A combination of topography, natural and man made patterns which together contribute to the appearance of the landscape.

Character: A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.

Elements: Individual components which make up the landscape, such as trees and hedges.

Features: Particularly prominent or eye-catching elements, like tree clumps, church towers, or wooded skylines.

Characteristics: Elements, or combinations of elements, which make a particular contribution to distinctive character.

Characterisation: The process of identifying areas of similar character, classifying and mapping.

LCA: Landscape Character Assessment: The process of assessing the character of the landscape and describing its character.

Landscape Character Types: Combinations of Land Description Units that share the same key characteristics. Character Types often occur in more than one discrete geographical area.

Landscape Character Areas: Geographically discrete areas strongly associated with a place, and often comprised of more than one character type.

Land Description Units: Distinct and relatively homogenous units of land, each defined by their Physiography, Ground Type, Land Cover and Cultural Pattern that set the extent of each spatial unit.

Sensitivity: The degree to which a landscape with a character is inherently sensitive or sensitive to a particular pressure. A landscape of high sensitivity is one that, once lost, would be difficult to restore. It is primarily a function of landscape character sensitivity (i.e. the degree to which a landscape character area is vulnerable to change which will affect its character); and visual sensitivity (i.e. the degree to which a particular view or visual landscape experience is vulnerable to change). Landscape value is also relevant in assessing landscape sensitivity and capacity for energy development. This term refers to the intrinsic value attached to a landscape, often reflected in designation or recognition, and expressing national or local consensus as to the degree of importance of a landscape.

Capacity: The degree to which a particular landscape character type or area is able to accommodate change without significant effects on its character, or overall change of landscape character type.

Each landscape has its own sensitivities, depending on its landform and land-cover as well as on a range of other characteristics and values including, for example, enclosure, visibility, condition, scenic and perceptual qualities, natural and cultural heritage features and cultural associations. Importantly, sensitivity depends on landscape character as well as on landscape values.

VISUAL IMPACT ASSESSMENT

Development effects: A tangible effect caused by the construction of the development. This can be temporary or short term (such as the loss of hedging which is subsequently replaced), or a long term effect such as the construction of a building with an indeterminate lifespan. Effects can be negative neutral or positive depending on their nature and the nature of the landscape or view.

Landscape Impact: Impacts on landscape character and resources, including effects on the physical and aesthetic values of the landscape caused by changes in elements, features and other qualities as a result of the development. The scale

of an impact is judged on the basis of the a combination of the area affected, the size of the development, the degree to which it differs from the existing character, and whether it damages or restores existing characteristics of the landscape. Impacts can be positive as well as negative. Terms used for the scale of impact range from zero, insignificant, low, and significant to high.

Visual impact: impact on visual amenity, including effects upon potential viewers and viewing groups (e.g. residents, employees, or visitors) caused by changes in the appearance of the landscape as a result of the development, and experienced by people at locations where viewers are present (visual receptors). The scale of an impact is judged on the basis of a combination of distance, proportion of the view which will be affected and the extent that the target will be screened by existing vegetation. Impacts can be positive as well as negative. Terms used for the scale of impact range from zero, insignificant, low, and significant to high.

Mitigation measures: changes in the proposed design, or the provision of additional or alternative solutions to overcome or reduce the scale of an impact (landscape or visual).

APPENDIX 4: METHODOLOGY

Introduction

Landscape and visual impact assessments are two different but linked procedures. The landscape survey baseline, its analysis and the assessment of landscape effects all contribute to the baseline for visual impact assessment studies. The assessment of the potential effect of a development on the landscape is carried out as an effect on an environmental resource, i.e. the landscape, whereas visual effects are assessed as one of the interrelated effects on people.

Landscape effects derive from changes in the physical landscape, which may give rise to changes in character and how this is experienced which may also affect the perceived value ascribed to the landscape.

Visual effects relate to the changes that arise in the composition of available views as a result of changes to the landscape, to people's response to the changes, and to the overall effects with respect to visual amenity (GLVIA, 2013).

Current Guidance and Source Data

The assessment process has been based on published guidelines provided in the following documents:

Landscape Institute and Institute of Environmental Management and Assessment (2013) *Guidelines for Landscape and Visual Impact Assessment* (Third edition);

The Countryside Agency / Scottish Natural Heritage (2002) *Landscape Character Assessment - Guidelines for England and Scotland*;

The Countryside Agency / Scottish Natural Heritage (2004) *Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity*,

The desktop landscape character assessment has been based on the following documents:

- Natural England character area profile 126t;
- A landscape strategy for West Sussex(2005)
- The Arun District Landscape Capacity study 2006 (HDA)

Landscape character and sensitivity

The landscape character assessment has used the Countryside Commission's, (now Natural England) Natural Character area profile (area 126) to describe the overall landscape context of the site and its environs. In addition, the West Sussex landscape character study has been used to describe landscape character areas that could be influenced by the proposed development. Once the character areas were identified they were reviewed through field work to gain an understanding of the potential impact that the proposed building would have upon the key characteristics and value of each area.

A more detailed character assessment has been undertaken for the immediate area adjoining the site to assess the sensitivity of the landscape to the proposed building .The sensitivity of areas to the scale of development proposed has been considered in accordance with the principles defined in guidance within Countryside Agency and SNH (2004) *Topic Paper 6 - Techniques and Criteria for Judging Capacity and Sensitivity*. This guidance recommends consideration of the following:

impacts upon particular aspects of landscape character including landform, land cover, enclosure and settlement pattern;

impacts on aesthetic aspects such as the scale, pattern, movement and complexity of the landscape;

potential visibility of the development and the number of people of different types who are likely to see it;

scope to modify visual impacts by various appropriate forms of mitigation measures.

Given the scale of the development, the overriding influence on sensitivity will be impacts on aesthetics and potential visibility. There will be minimal impact on particular aspects of landscape character such as landform, and there is limited scope for mitigation other than through local siting layout design and screen planting.

Once the landscape sensitivity had been considered the overall assessment of effect was determined by considering the magnitude of change against the sensitivity of the landscape character area.

The definitions for magnitude of change used for the assessment are as follows:

High (H) - Very obvious change in the balance of landscape characteristics over an extensive area; ranging to particularly intensive change (i.e. a dominating effect) over a more limited area;

Medium (M) Perceptible changes in an extensive area which whilst notable do not alter the balance of the landscape characteristics; ranging to moderate changes in the localised area which whilst obvious do not fundamentally change local character;

Low (L) Virtually imperceptible change in any components of the wider landscape with modest and unremarkable changes in the localised area.

No Change (N) No material change from the current situation

Once sensitivity and magnitude are classified the two are considered to achieve an assessment of the significance of effect. The overall significance is then stated in terms of:

No Material effect Negligible effect Slight effect Minor effect Moderate effect Major effect Substantial effect.

Table A shows a matrix which illustrates the process of how sensitivity and magnitude of landscape change are combined to derive the level of significance of effect. This is considered in the assessment tables at Appendix 7

Table A Landscape character impact assessment matrix

Magnitude of landscape change	Landscape sensitivity			
		High	Medium	Low
	High	Substantial	Major	Moderate
	Medium	Major	Moderate	Minor
	Low	Moderate	Minor	Slight
	No change	No material effect	No material effect	No material effect

As magnitude and sensitivity are on a sliding scale it is appropriate to sub-divide the High, Medium and Low categories to whichever degree most accurately evaluates any given situation, e.g. High to Medium, Very High, or even High to Medium/High are fully acceptable. This may in turn result in significance of, for example, Minor to Moderate

Visual impact assessment

The visual assessment has been based upon field survey work which identified locations which would have clear views towards the proposed building within the study area. The viewpoints have been selected because they are sited within the locations where the site is likely to be visible and are representative of typical viewpoints which represent 'worst case' visibility .

The method of determining visual impacts is similar to the method used for landscape impacts. The receptor and potential sensitivity is identified, as is the magnitude of effect. These are then correlated to determine a significance of effect.

Relative sensitivity of visual receptors is determined and classified as follows:

High Recreational footpaths, important landscape features with physical, cultural or historic attributes; principal views from residential buildings; high numbers of residential receptors, views from beauty spots and picnic areas;

Medium Other footpaths; secondary or oblique views from residential buildings; drivers and passengers in vehicles engaged in tourism or journeys of a recreational nature;

Low Views from industrial or commercial buildings or areas; drivers and passengers of vehicles engaged in commercial travel or commuting; views from primarily functional main roads; and views from trains.

The classification of the magnitudes of visual effect are:

High: The majority of viewers affected / major changes in the character, make-up and balance of the view;

Medium Many viewers affected / moderate changes in the nature of the view;

Low Few viewers affected / minor change in the nature of the view.

Table B shows a matrix which illustrates the process of how sensitivity of visual receptors and magnitude of visual effect are combined to derive the level of significance. This is also considered in the assessment tables at Appendix 8

Table B: Visual impact assessment matrix

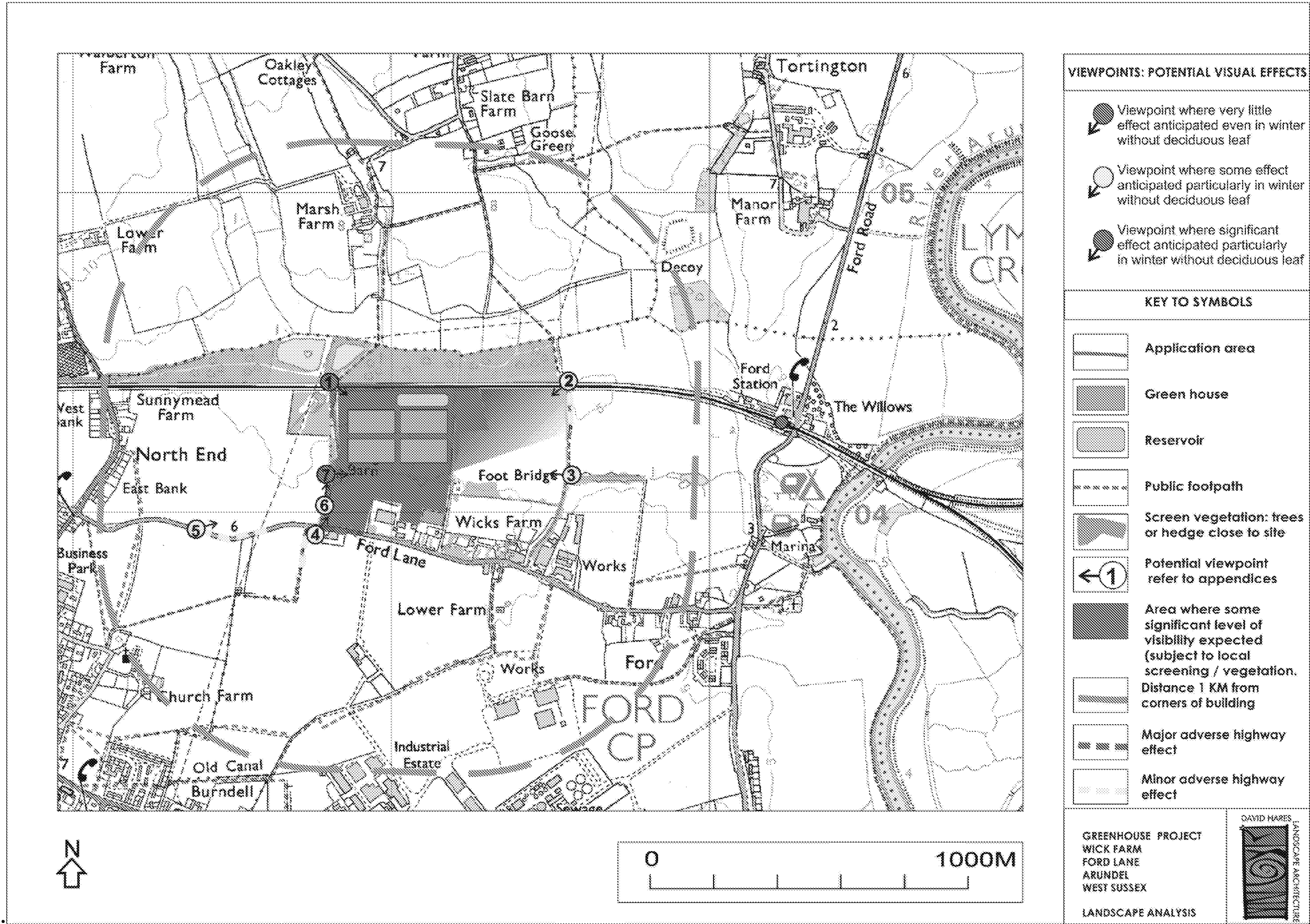
Magnitude of Visual effect	Sensitivity of receptor			
		High	Medium	Low
	High	Substantial	Major	Moderate
	Medium	Major	Moderate	Minor
	Low	Moderate	Minor	Slight
	No change	No material effect	No material effect	No material effect

In considering the magnitude of visual effects, a commentary is provided to justify the reasoning for the magnitude criterion selected. This in turn will influence the significance of the effect. Such factors considered may include, for example, the principle aspect of the viewpoints/viewers, the proportion of any particular view affected, the potential for the development to attract the eye or to become a focal point in the view to the detriment/benefit of competing visual elements, or the presence of other detracting features.

The Study Area

The study area identified as being appropriate to the study reflects the scale of the development and nature of the landscape to identify effects which would be considered significant in LVIA terms. This was adjusted to suit the situation on the ground reflecting local topography and trees and vegetation cover.

APPENDIX 5: PHOTOGRAPHIC LOCATIONS AND PHOTOGRAPHS





Viewpoint 1: View from junction of railway & footpath 355 looking south east toward proposed greenhouse site .The greenhouses will be clearly seen and close leading to a major level visual effect. It will be possible to provide mitigation planting to the intervening area; to reduce the level of the adverse effect in the longer term.



Viewpoint 2 : View from junction of railway with footpath 365 looking south west towards proposed greenhouse site from north east. The greenhouses and reservoir will be situated beyond the gappy hedge in the middle distance with the reservoir more clearly visible on the right where the hedge is absent. The adverse effect is considered to be of a medium level. Mitigation measures including gapping up the hedge and planting to screen the reservoir are proposed.



Viewpoint 3 : View from footbridge on footpath 365 looking west towards proposed greenhouse site from the east . From this position most of the proposed greenhouses and the reservoir will be partially screened by the existing hedge. The level of adverse visual effect is therefore considered to be of a medium level. Over time proposed mitigation measures which include gapping up the hedge will reduce this to a minor level effect.



Viewpoint 4 : View from Ford lane looking north towards site next to Peregrine House. The consented digestate lagoon is to be positioned in the middle distance to the right and will help to screen the proposed greenhouses. There are various gaps in the hedge alongside Ford Lane which permit views into the field from the lane, which will lead to a major to medium level adverse visual effect initially,

although the planting proposals associated with the digestate lagoon include the gapping up of the roadside hedge. Over time the proposal to reinstate the hedge to the road will reduce the level of effect to a minor level.



Viewpoint 5 : View from Ford lane looking east towards the site from the west near Yapton. The height of the proposed greenhouses is of a similar level to the central building (Sussex Dog Training) and consequently approximately 60% of the greenhouses will be hidden by existing buildings and trees. As a result of this and the distance to the greenhouse the level of adverse visual effect is considered to be of a medium to minor level. Proposed mitigation planting will also reduce the level of effect over time.



Viewpoint 6 : View along footpath 355 looking north along proposed access track to site. This track will need to be upgraded to provide access to the greenhouses. It is recommended that the finish of the track

should consist of a buff coloured gravel rather than plain tarmac in order to give a more rural character to the upgraded access. Gapping up of the hedge is covered by planting proposals associated with the digestate lagoon proposals.



Viewpoint 7: View from Footpath 355 adjoining Sussex Dog training building looking east into the site. Much of the proposed greenhouse development will be visible from this location, and the nearest greenhouse is relatively close to the viewer. The consented digestate lagoon and associated fence and planting is to be situated in the right foreground. Planting proposals associated with the digestate lagoon include a hedge to the rear of the building. There will be a major adverse visual effect at this viewpoint initially. Proposed mitigation measures include intervening tree planting which will help to reduce the level of effect after establishment in some 5 years time.

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APPENDIX 6: DIGESTATE LAGOON APPROVED UNDER REFERENCE WSCC/019/17F AND APPROVED PLANTING CONDITION 7