

8 Landscape and Visual

8.1 Introduction

8.1.1 This chapter describes the likely effects on landscape character and visual amenity of the proposed development at the following stages:

- *Site preparation and construction works* – works to remove the previous commercial uses on the site, level the site and implement new earthworks, pond, fencing, new Energy from Waste Combined Heat and Power facility (EfW CHP facility), including construction of new buildings, structures, roads and hard-standing with associated earthworks, on-site planting and fencing.
- *Completion of the EfW CHP facility* – i.e. at Year 1 of operation after construction is complete and the facility is operational, including the associated operational traffic.
- *At Year 15 of operation* – with proposed planting, which would be relatively mature and well established, providing the intended long-term mitigation.

8.1.2 The assessment makes use of photographs and photomontages which are referred to in the text to assist in describing the character of the existing site, existing views and the likely visual impact of the development on those views. Photographs are also used in some cases to explain where and why the development is not likely to be visible.

8.2 Relevant Planning Policy

Applicable Policy Documents

8.2.1 This section comprises a review of relevant planning policy. Information on whether or not any landscape planning designations cover the site and/or the surrounding area has been ascertained.

8.2.2 The following planning policy documents are applicable and are reviewed below:

- National Planning Policy Statements (PPS); and
- Plymouth City Council Local Development Framework (LDF) consisting of Development Plan Documents (DPD) and Sustainable Design Supplementary Planning Document (SPD)¹.

National Planning Policy

8.2.3 Guidance issued by the Department for Communities and Local Government (DCLG – formerly the Office of the Deputy Prime Minister) includes PPS 1: Delivering Sustainable Development (2005)², which *'sets out the overarching planning policies on the delivery of sustainable development through the planning system'* and Planning Policy Statement: Planning and Climate Change - Supplement to Planning Policy Statement 1 (2009). Local planning authorities are required to take account of the policies set out in PPS1 and its Supplement, as well as various other PSSs, when preparing local development documents.

- 8.2.4 In essence, planning authorities are required to include policies within their development plans that identify, promote and deliver sustainable development, including policies that seek to protect and enhance the environment.

Local Development Framework

- 8.2.5 Plymouth City Council adopted its Core Strategy³ on 23 April 2007, which sets out a number of strategic objectives and policies for development in Plymouth for the period 2006 to 2021.

- 8.2.6 The proposed development does not fall within any of the adopted Area Action Plans (AAP).

- 8.2.7 The eastern edge of the Tamar Valley AONB lies approximately 1.5km from the western boundary of the site, across the River Tamar (see Figure 8.1). The Tamar Valley is designated as an AONB as it is:

- *“A rare valley and water landscape;*
- *A landscape of high visual quality;*
- *A unique wildlife resource;*
- *A remarkable heritage; and*
- *A landscape of artistic and public appeal”⁴.*

- 8.2.8 The Green Space Strategy for Plymouth City Council⁵, cites the residential area of Barne Barton as a *“priority neighbourhood for green space investment”*. It also designates a Blackies Wood (an area of woodland within the north—west of the site) as being *“Non accessible green space”*; which it presently is not. This Strategy also presents Objective GSS16: ‘Access to Nature’ which aims to:

- *“working with partners to ensure... natural green space areas are promoted as places for high quality access to nature, and as a focus for community involvement in green space management*
- *ensuring all green space management plans address opportunities for biodiversity protection and enhancement...*
- *ensuring that green space and blue space (the rivers and estuary) are managed in an integrated way to maximise benefits to terrestrial and marine wildlife”*

- 8.2.9 Objective GSS19: ‘The Educational Benefits of Green Space’ within the Strategy aims:

- *“To enhance and develop new programmes of environmental based education with external and internal partners within Plymouth and the wider region.”*

- 8.2.10 In accordance with these objectives the proposals aim to enable coordinated and beneficial access to Blackies Wood so that it can be managed for the benefit of the local communities, educational groups, and to enhance and protect the biodiversity of the site. Proposals also include improvement to the area north-west of Blackies Wood (in Barne Barton) for improved public open space in this ‘priority neighbourhood’.

- 8.2.11 A Scheduled Ancient Monument (SAM) is situated at Bull Point, approximately 1km to the north-west of the site. However, the monument is not visible from the site. This aspect is assessed in Chapter 7: Cultural Heritage.

- 8.2.12 Plymouth Core Strategy: Strategic Objective 2, 'Design', seeks to ensure that all developments have regard to key design principles in support of the City Vision for a high quality city. Policy CS02 states that *"new development should be well designed to respect the character, identity and context of Plymouth's historic townscape and landscape and in particular Plymouth's unique waterfront, its moorland setting and the settlement pattern. New development should also:*
- *Promote the image of the city, through enhancement of international, city and local gateway locations and key approach corridors.*
 - *Protect important local and longer-distance views.*
 - *Contribute positively to an area's identity and heritage in terms of scale, density, layout and access.*
 - *Have public and private spaces that are safe, attractive, easily distinguished, accessible and complement the built form..."*
- 8.2.13 In accordance with Strategic Objective 2 and Policy CS02 'Design' the proposal represents a world class efficient EfW CHP facility managing waste and producing electricity and heat in a dockyard that has been at the forefront of technological innovation for over two hundred years. The proposed design has evolved to be both modern and functional. The facility will inevitably have a strong presence due to its nature, scale and form, but the proposals aim to set it carefully within the landscape.
- 8.2.14 Two meetings have been held with the South West Regional Design Panel (affiliated with CABE, the Commission for Architecture and the Built Environment) and account has been taken in the emerging site layouts and design. Particular note has been given to views from nearby residential properties within Barne Barton as well as other residential areas in proximity to the site. Different site layout configurations were explored, including locating the chimney as far as possible north-eastwards and in breaking-up the apparent mass of the building, as well as different locations for the air-cooled condensers, and other implications of traffic movement across the site, noise etc. More information can be found in the Design and Access Statement and in ES Chapter 5: Alternatives to the Proposed Development.
- 8.2.15 Policy CS18, 'Plymouth's Green Space', refers to development proposals and their associated landscape schemes. It states *'the Council will protect and support a diverse and multi-functional network of green space and waterscape, through:*
- *Identifying in the Site Allocations Development Plan Document and Area Action Plans a network of strategically and locally important Greenscape Areas. Development on or adjacent to these Greenscape Areas will not be permitted where it would result in unacceptable conflict with the function(s) or characteristics of that area.*
 - *Requiring development proposals to improve the quality and quantity of accessible green space, where appropriate.*
 - *Requiring development proposals to address local deficiencies in accessible green space, where appropriate.*
 - *Using its planning powers to safeguard important trees and hedgerows, and to secure provision for soft landscaping where appropriate as part of development.'*
- 8.2.16 This policy identifies the network of green spaces in proximity to the site and has relevance regarding the proposed management of the 'Local Greenspace Area' (as categorised in this

Strategy) of Blackies Wood, which is currently unused, unmanaged and of low ecological or amenity value. Although it is not freely available to the public it does suffer from the consequences of illegal public access, misuse and anti-social behaviour, which are apparent in the form of arson, littering, vandalism and fly tipping. The proposals aim to greatly transform this area and the adjacent public open space along Savage Road improving the quality of the open space and the quantity of accessible space in a manner most beneficial to the local community. Furthermore, the soft landscape proposals within the main area of the site (in proximity to the proposed buildings) seek to soften and integrate the building within this unique setting – between woodland, residential land and the industrial dockyard. For full details of the landscape proposals, refer to the accompanying Design and Access Statement.

8.2.17 From a landscape and visual perspective, certain points need to be considered from Policy CS34, Planning Application Considerations. This states that *'Planning permission will be granted if all relevant considerations are properly addressed. These considerations will include whether the development:...*

- *Positively contributes to the townscape, landscape and biodiversity of the local environment.*
- *Is compatible with its surroundings in terms of style, siting, layout, orientation, visual impact, local context and views, scale, massing, height, density, materials and detailing.*
- *Incorporates public spaces, landscaping, public art and 'designing out crime' initiatives.'*

8.2.18 In reference to Policy CS34, the design has evolved to be both modern but functional. The facility will have a strong presence due to its nature, scale and form, but it will be carefully set within the landscape, with location and form led by the existing landform and natural features of the site and immediate surroundings. Details of the design proposals are given in ES Chapter 6: Description of the Proposed Development.

Plymouth Waste DPD⁶

8.2.19 The Plymouth Waste DPD was adopted on 21st April 2008. It sets the context for considering waste management and disposal facilities in Plymouth. It focuses particularly on providing site allocations and a decision-making framework to ensure that the waste objectives are realised but makes provision for facilities on sites which are not allocated in the Document.

8.2.20 Policy W7, Unallocated Sites, which applies to the application site, states:

'Proposals for the development of strategic, large scale or local waste management facilities on sites not allocated in this development plan will be permitted, where they meet the following criteria:...

- 2) *Priority will be given to the use of previously developed land. However, loss of Greenfield land may be acceptable if it does not result in significant adverse impact on greenscape character or functions, and that the impacts of the development can be adequately mitigated and the development proposal otherwise performs well in relation to the other criteria of this policy.*
- 3) *They are compatible with their environmental setting and will not result in unacceptable impacts on important environmental, historic or cultural assets.*

- 4) *They will not result in unacceptable direct or indirect impacts on the residential amenity of existing or proposed communities, or unacceptable impacts on the amenity of other neighbouring users that would be sensitive to waste management development...'*
- 8.2.21 The proposed facility responds to the need for strategic waste management and treatment infrastructure specified in Policy CS25. The site of the proposed development is not one of the five sites allocated in Plymouth City Council's (PCC) Waste Development Plan Document (DPD)⁷ as being suitable for a range of strategic waste management facilities. However, Policy W7 of the Waste DPD states that such facilities at unallocated sites can still achieve planning permission assuming a series of criteria are met.
- 8.2.22 Criteria 2 of Policy W7 is met because the site is previously developed land.
- 8.2.23 With regards to Criteria 3 the proposed development would not be out of context as it will be located within an area of existing 'industrial' character at the northern end of the dockyard area. Environmental impacts on areas such as Blackies Wood can be avoided or mitigated (as set out later in this chapter).
- 8.2.24 There are residential properties in the vicinity, notably to the north on Talbot Gardens and Savage Road, which will look out onto the proposed development. MVV is committed to a high standard of architectural and landscape design, minimising impacts on local amenity. The landscape design and photomontages were prepared concurrently with the architecture to assist in the development of the proposals. Both take into consideration the alignment and direct views in relation to the proposed building and distance from it, and contributed to the iterative process of refining the scheme.
- 8.2.25 Further analysis of the proposed development against Policy W7, in particular Criteria 4, which requires that waste management development should not cause unacceptable impact on residential amenity or the amenity of other neighbouring users, can be found in the Section 11 in the Planning Application Supporting Statement.
- 8.2.26 Policy W8, Considerations for Waste Development Proposals, states that '*development proposals for waste management facilities will be permitted where they comply with the following criteria:*
1. *They do not have unacceptable impacts on environmental, social or economic assets. ...*
 - 5 *The proposal provides for a good standard of design, particularly in relation to: site layout; quality of building appearance and materials; screening and boundary treatment; and hard and soft landscaping...'*
- 8.2.27 As the design of the facility has evolved, consideration has been given to the building appearance and building materials used. As noted above, the landscape proposals were designed for the scheme to enable the evolution of required mitigation to prevent unacceptable impacts and ensure a good standard of integration. In particular the proposed management of Blackies Wood will lead to its improvement as an environmental asset.

Sustainable Design: Supplementary Planning Document

- 8.2.28 This SPD has been produced as a guide for pre-application discussions between developers and the Council to ensure design is a fundamental consideration in the development proposals and to help the Council assess planning applications.

- 8.2.29 Section 2 considers topography, green space and biodiversity, providing guidance for the designs, by means of the following checklist:
- *“Have you ensured your proposal makes a positive contribution to the natural environment, including a net gain in biodiversity?”*
 - *Has your proposal taken account of the topographical features of the site?*
 - *Has the development sought to promote better access to the available green spaces nearby / or does it provide an appropriate level of green space.”*
- 8.2.30 The topography of the site has been the key influence in the siting of the building, dictating the need for a landscape-led approach to the design from the outset. Using the sloping element of Blackies Wood as a backdrop, buffer and part-screen, the lower, more level area of the site has been selected for the building location. The management of Blackies Wood and opening this area to the public in a safe manner will provide a gain in the biodiversity whilst also promoting better availability to the public to this green space. The landscape proposals for the informal kick-about space along Savage Road will also improve this previously sloping, open green space for public use.
- 8.2.31 Section 6 considers safe and attractive streets and spaces, and asks:
- *“Has public art been considered as an integral component of the development?”*
- 8.2.32 The landscape proposals contain various elements of public art, including an exhibition area on the roof terrace which will be visible from the elevated ground to the north-west and for the enjoyment of visitors to and employees of the facility. There is also a large ‘waste’ sculpture proposed, which is to be locally commissioned and constructed principally from ‘the waste materials’, which will be located near the entrance to the EfW CHP facility to form an artistic landmark and ‘gateway’ feature. This artwork is to be commissioned in collaboration with the Arts Council England and Plymouth City Council’s Art Officer. The design and style is therefore still to be determined, and would be undertaken in liaison with the local community. The specific visual impacts of this feature are therefore not considered in this assessment.
- 8.2.33 Section 10 considers development that responds to the needs of the future, asking:
- *“Have the opportunities for re-use of buildings / materials been maximised on site?”*
- 8.2.34 The proposals for the brown roof, the part-gravelled roof terrace and the construction of reptile hibernaculae are proposed to make use of some of the existing stone and rubble material on the site.
- 8.2.35 Particular attention has been paid to the Criteria for Tall Buildings in the Sustainable Design SPD. Although it is recognised that this site lies outside the zone of opportunity for tall buildings as indicated by that document, it is appropriate to follow the recommended criteria for such buildings where relevant to this application. The architectural quality of the building in scale form massing proportion and silhouette have been considered through the design development process, along with the choice of facing materials and relationship to other structures. In addition the design deliverability will be ensured by careful attention to detailing to prevent any dilution of the architectural quality.
- 8.2.36 The particular criteria for the design of tall buildings as outlined in the Sustainable Design SPD have been responded to as follows:

- 8.2.37 1. Sustainability – The building not only creates Energy from Waste and therefore has high sustainability credentials but also uses materials with a long life span, maximises the use of available land and will use forms of construction which maximise energy efficiency.
- 8.2.38 2. Relationship to Context – The proposal needs to minimise the overall height of the building but also create an architectural statement. The building should also respond to its context in the use of design references, possibly echoing the adjacent dockyard composition.
- 8.2.39 3. Transport – The distance of the site to the main road network is minimal and transport impacts have been assessed (see ES Chapter 12). There is an opportunity to provide controlled public access to the facility and the adjacent Blackies Wood and views from the nearby railway line will be important in relation to creating a sense of arrival via this landmark building.
- 8.2.40 4. Design and Architectural Form - The design will need to be of a high quality in scale form and architectural detail. The detail of the top of the building will be important, as will the materials used, which will need to be of high quality and designed to need very low maintenance.
- 8.2.41 5. Land Use Mix – The scheme proposes an EfW CHP facility, the management and improvement of existing woodland, educational facilities and landscape and amenity benefits for the surrounding area.
- 8.2.42 6. Environmental Issues – The sustainability of the building is described above. In addition there will be opportunities to provide benefits for wildlife, and environmental improvements through landscaping. The longevity of the building is guaranteed by a continuous waste stream and the building will be able to adapt to the replacement of component parts or plant which will extend its life.

8.3 Assessment Methodology

General Approach

- 8.3.1 The methodology used for this landscape and visual assessment is based upon the guidance contained within The Landscape Institute (LI) and the Institute of Environmental Management and Assessment (IEMA) 'Guidelines for Landscape and Visual Impact Assessment' Second Edition (2002)⁸. The methodology has been refined using professional judgement to address the specific issues raised by a development of this scale and nature. Further guidance has also been drawn from the Countryside Agency (2002) 'Landscape Character Assessment - Guidance for England and Scotland'⁹ and 'The Devon Landscape: An Appraisal of Devon's Landscape at the Beginning of the 21st Century' (Steve Church on behalf of Devon County Council, 2002)¹⁰, which forms an element of Devon County Council's Landscape Strategy. In addition, due to the proximity of the site to Cornwall, guidance was also drawn from the Cornwall County Council (Now Cornwall Council) (2008) 'Cornwall and the Isles of Scilly Landscape Character Study'¹¹.

Terminology

- 8.3.2 The following terminology has been used throughout the assessment:
- *Landscape*: those physical components that together form the appearance of land, including its shapes, colours and textures. Landscape also reflects the way in which these various components combine to create distinctive landscape character particular to specific localities.

- *Landscape Character Type (LCT)*: distinctive types of landscape which are relatively homogenous in character and may occur in more than one area.
- *Landscape Character Area (LCA)*: an area of homogenous landscape character specific to a local area. Typical landscape components defining character include landform, land cover, vegetation, settlement pattern, remoteness and degree of tranquillity.
- *Zone of Visual Influence (ZVI)*: the area within which the proposed development would have a visual influence. Many factors influence the ZVI including landform, intervening vegetation and buildings which can obscure views. The Primary ZVI is defined as the area of land in the immediate horizon from which there is a potential view of any part of the site. The Secondary ZVI indicates areas which form the secondary horizon from the site, where receptors outside of the site gain glimpses of the site from across the PZVI, usually from greater distance.
- *Visual Receptors*: people or groups of people such as residents, pedestrians and motorists who would experience an effect on views resulting from the proposed development.
- *Key Viewpoints*: locations within the ZVI from which people would be able to see the proposed development, including residences, workplaces, passing vehicles, roads, footpaths and publicly accessible open spaces.

8.3.3 The methodology makes a clear distinction between the effects of impacts of the proposed development upon landscape and views, as follows:

- *Landscape impacts* relate to the impacts of the proposed development upon the characteristics or components of the landscape, for example, topography, vegetation and buildings, together forming the local character.
- *Visual impacts* relate to the changes arising from the proposed development to views from key viewpoints identified within the ZVI.

Assumptions and Limitations

8.3.4 The assessment makes the following assumptions:

- In relation to the proposed site preparation and construction works, the assessment of effects at Year 1, and Year 15 of operation assume that the landscape proposals and mitigation described in Section 8.5 would have been implemented.
- In relation to the proposed EfW CHP facility, it is assumed that the construction works described earlier in Chapter 6 of this ES would have been completed, and the landscape proposals described in Section 8.5: 'Landscape Proposals' would have been implemented before operation of the facility was to proceed. The assessment of effects at Year 1 and Year 15 of operation has assumed that the mitigation described within these proposals would have been implemented. The assessment of effects at Year 15 therefore includes an assessment of the impact of the landscape proposals being well established and semi-mature.
- It is assumed that a construction compound for the scheme will be located on the feature known as 'Table Top Mountain'. This would be returned to its current use following completion of the construction phase (at Year 1).

- The assessment assumes that vegetation within the area surrounding the site will remain intact during the periods of construction and operation assessed.
- Growth rates of trees and shrubs proposed as part of the landscape mitigation will vary depending on a number of factors including soil conditions, rainfall, drainage, irrigation and maintenance. Growth rates are assumed at an average for the purposes of this assessment.
- The assessment of the likely development of the future baseline in paragraphs 8.4.114 - 8.4.115 assumes no further change of use either of the application site or within the surrounding areas. However, we are aware of other potential developments in the vicinity that may be present in the future. Potential cumulative effects with these developments are considered in ES Chapter 19: Inter-relationships and Cumulative Effects.

Baseline Conditions

8.3.5 The extent of the study area for this assessment is that shown in Figure 8.1. The study area has been taken to be a 6km radius from the centre of the site. A radius of 5km would be considered a suitable size of study area for this scale of development; however 6km has been applied in this assessment due to the proximity of the estuary and clear views of the site available from the south-south-west on the Rame Peninsula. Additional information on specific locations outside of the study area has been taken into consideration at the specific request of Plymouth City Council's Department of Development in pre-application meetings. The landscape and visual conditions have been assessed through both desk study and field work to cover all seasons between March 2010 and February 2011 in terms of:

- Site location;
- Landscape context;
- Topography;
- Vegetation;
- Roads and access;
- Settlement and land-use;
- Recreation;
- Lighting;
- Landscape character; and
- Views.

8.3.6 The landscape planning context in Section 8.2 has been assessed, taking into account relevant national, regional and local planning policies.

8.3.7 A review of relevant existing landscape character assessments has been carried out in order to inform the baseline and to assist in the definition of local LCTs / LCAs appropriate to the scale of the study. LCTs may in some cases appear in more than one location within the study area. To take account of this, LCTs have been further classified into LCAs. This structured method allows

a more detailed assessment of the baseline character of each area, whilst recognising the similarities between LCAs of the same type and aids the process of impact assessment covered in Section 8.6 of this chapter.

Impact Assessment Principles

8.3.8 This assessment considers both beneficial and adverse impacts and effects on the baseline landscape and views that would occur as a consequence of the construction and operation of the proposed development at three points in time:

- During site preparation and construction (referred to as construction phase),
- Year 1, upon completion of the proposed EfW CHP facility (i.e. at start of operation); and
- After 15 years of operation.

8.3.9 Through the assessment of impacts at these points in time, distinctions may be drawn between temporary, permanent, short-term and long-term impacts.

8.3.10 Landscape and visual impacts may if necessary be further categorised as being either direct, e.g. introduction of built form, or indirect impacts, e.g. the off-site visual impact of construction traffic.

Landscape Assessment Methodology

8.3.11 Landscape impacts relate to changes arising from the proposed development upon landscape elements and features (the components) and general impact upon landscape character.

8.3.12 Predictions are based primarily on the change to baseline conditions prevalent throughout 2010 and projected forward to 15 years from the start of operation (2029 based on commencement of operations in 2014). This prediction follows a systematic and structured assessment process.

8.3.13 The assessment of landscape impacts is structured in line with the LCAs identified. Within the study area there might be LCAs within which development will occur or where there is a degree of intervisibility between the development site and the surrounding landscape, or where no change will be perceptible. Each LCA is assigned a sensitivity based on the character and quality of the landscape and ability to accommodate change.

LCA Sensitivity

8.3.14 Sensitivity to change is classified as high, medium or low, as follows:

- High sensitivity LCA: landscape of distinctive components and characteristics, sensitive to small changes (e.g. AONB, unspoiled countryside or Conservation Area);
- Medium sensitivity LCA: landscape of relatively common components and characteristics, reasonably tolerant of changes (e.g. agricultural land); and
- Low sensitivity LCA: landscape of relatively inconsequential components and characteristics, the nature of which is potentially tolerant of substantial change (e.g. derelict land or active industrial site).

Magnitude of Landscape Impacts

- 8.3.15 Magnitude of impact is determined by a combination of scale of the proposed development, the type of the proposed development and the level of integration of new features with existing elements. Magnitude of impact is classified as high, medium, low or negligible, as follows:
- High magnitude of impact: ranging from a limited change in landscape characteristics over an extensive area, to an intensive change over a more limited area;
 - Medium magnitude of impact: moderate changes in a localised area;
 - Low magnitude of impact: low changes in a localised area; and
 - Negligible magnitude of impact: virtually imperceptible change in any components.

Landscape Effects

- 8.3.16 Whilst there is a degree of professional judgement involved in determining the overall level of landscape effect, the category can be broadly determined by the interaction of the magnitude of impact and the sensitivity of the receptor, as shown in Table 8.1, below.

Visual Assessment Methodology

- 8.3.17 Visual impacts result from change to the appearance of the landscape due to development proposals either intruding into or obstructing existing views, or by their overall impact on visual amenity.

Zone of Visual Influence

- 8.3.18 The first stage of the visual impact assessment process was to define the ZVI of the proposed development. The ZVI is then used to determine visual receptors that would be likely to be affected by the proposed development. The ZVI for the construction works is assumed to be within that of the proposed EfW CHP facility at completion.
- 8.3.19 The ZVI was determined through various means, including analysis of the computer-generated Zone of Theoretical Visibility (ZTV) (see Appendix 8.4), topographic maps, aerial photographs and extensive field survey to determine the locations from which the proposed development may be visible.
- 8.3.20 The ZTV map was produced using a Geographic Information System (GIS) in which a scaled computer model of the EfW CHP Facility main building and 95m high chimney were superimposed in a virtual 'landscape'. It is important to stress that this 'landscape' is comprised solely of a digital model of the terrain of the study area. The Zone of Theoretical Visibility is therefore just that: theoretical. It does not include buildings, woodlands, etc, which in reality have a substantial effect in blocking visibility. It is not possible to accurately model all of the buildings and vegetation in the study area in a 3D computer model. Because of this, the ZTV is one of a number of tools used to identify the ZVI, the other main tool being field surveys.
- 8.3.21 Field surveys were carried out during the summer and winter to confirm the ZVI, therefore representing different scenarios when intervening vegetation is in leaf and when the deciduous vegetation is not. The ZVI taken from the field survey was determined from various points on ground level ranging between approximately 7-10m AOD from within the site, as well as off-site locations from which the site was visible. The ZVI can be seen in Figures 8.8.1 to 8.8.4.

Visual Receptor Sensitivity

8.3.22 Each receptor is assigned a level of sensitivity based on a combination of the expectations and activity of the receptor (e.g. leisure, work, etc.) and the location, context and importance of the existing view. Sensitivity is classified as high, medium or low, as follows:

- High sensitivity receptors: high value activity (e.g. residents, people engaged in outdoor recreation whose attention is focused on the landscape) and/or extended period of exposure to views;
- Medium sensitivity receptors: medium value activity (e.g. people engaged in outdoor recreation that does not involve appreciation of the landscape) and/or a medium value of existing view (e.g. suburban residential areas or intensively farmed countryside); and
- Low sensitivity receptors: low value activity (e.g. people at work or motorists travelling quickly through the area) and/or low value of existing view (e.g. industrial areas or derelict land).

Magnitude of Visual Impact

8.3.23 Magnitude of visual impact is based on a combination of degree of change and degree of exposure to the view, including the extent of the area over which the changes would be visible. Magnitude of impact is classified as high, medium, low or negligible, as follows:

- High magnitude of impact: high degree of change to existing view (e.g. loss of characteristic features) and/or high degree of exposure to view (e.g. close or open views);
- Medium magnitude of impact: medium degree of change to existing view (e.g. partial loss of characteristic features) and/or medium degree of exposure to view (e.g. middle-distance or partial views);
- Low magnitude of impact: low degree of change to existing view (e.g. limited loss of characteristic features) and/or low degree of exposure to view (e.g. long-distance or glimpsed views); and
- Negligible magnitude of impact: virtually imperceptible change to existing view.

Visual Effects

8.3.24 Whilst there is a degree of professional judgement involved in determining the overall level of visual effect, the category can be broadly determined by the interaction of the magnitude of impact and the sensitivity of the receptor, as shown in Table 8.1, below.

Photomontages

8.3.25 A series of photomontages has been produced to illustrate the effect of the proposed EfW CHP facility on baseline views.

8.3.26 The methodology for producing the photomontages is fully verifiable. The exact height of the camera above ground was recorded for each viewpoint and the lens focal length, angle of view and shift were recorded for each photograph. The precise camera position for each viewpoint was marked on the ground directly under the central axis of the tripod to enable accurate positioning for laser survey. A photograph control survey was then undertaken, by marking-up identifiable points on the digital photographs already taken, and relating these and the camera

locations to the British National Grid and Level Datum using GPS. This information is included in Appendix 8.1, Table A.

- 8.3.27 The photographs were taken on 6th April 2010, 21st and 25th January 2011 and 8th February 2011. They are intended to show a clear line of sight towards the proposed development, as well as illustrating the local context. Clear weather conditions and times of day, which presented legible modelling to features within each view, were attained. All photographs were taken in accordance with the 'Photography and photomontage in landscape and visual impact assessment', Advice Note 01/11, March 2011 by the Landscape Institute¹².
- 8.3.28 The cameras used were a high resolution digital Canon EOS 5D Mkii 21 Megapixel Digital SLR and a Nikon D60. The camera and tripod were set at heights of between 155cm and 215cm above the ground. These heights were chosen at the designated viewpoints to represent eye-level and gain the best possible full view, free of immediate obstructions.
- 8.3.29 The proposed development was then modelled in 3D using AutoCAD, by combining CAD bases with the photographic and survey data. The survey coordinates were used to camera-match a 'virtual camera' with the physical camera locations. The resulting images were then exported into Adobe Photoshop and rendered to produce the final photomontages.
- 8.3.30 Three additional photomontages have been produced at the request of Plymouth City Council officers on 28th January 2011 to more fully represent residences along Savage Road in particular as these properties are oriented towards and in close proximity to the proposed development.
- 8.3.31 A further photomontage was requested by Plymouth City Council officers on 31st March 2011. This was to illustrate what a plume from the chimney might look like, refer to Figure 8.9.16.1
- 8.3.32 Further to a meeting with a resident of Talbot Gardens at one of the public exhibitions held by MVV in February 2011, an additional photomontage has also been produced from the balcony of Number 21 Talbot Gardens.

Significance of Effects

- 8.3.33 Receptor sensitivity and magnitude of impact are combined in order to ascertain the overall effect that the proposed development would have on the existing baseline landscape and visual conditions for each receptor as shown in the matrix in Table 8.1.

Table 8.1: Classification of Significance of Effects

Sensitivity of Receptor	Magnitude of Impact			
	High	Medium	Low	Negligible
High	Major	Major / moderate	Moderate	Minor
Medium	Major / moderate	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible

8.3.34 For the purposes of this assessment, ‘significant’ effects in EIA terms are those determined to be Major and which could have an influence on the decision making process. Major / Moderate effects may or may not be ‘significant’ in EIA terms – in such cases professional judgement has been used – and such effects could also have an influence on the decision making process. Moderate effects are not considered to be ‘significant’ in EIA terms but such effects could still have some influence on decision making, particularly when combined with other similar effects. Minor effects are not considered to be ‘significant’ in EIA terms; on their own they are likely to have a negligible influence on decision making but when combined with other effects could have more influence. Negligible effects are not considered to be ‘significant’ in EIA terms and are not expected to have an influence on the decision making process.

8.3.35 Effects may be considered either beneficial or adverse. In order to determine whether an effect is beneficial or adverse, an indicative textual ranking has been used as shown in Table 8.2. Where the effect is deemed to be neither beneficial nor adverse, a neutral effect has been assigned.

Table 8.2: Illustrative Descriptions of Landscape and Visual Effect Significance

Significance of Effect	Description of Landscape Effect	Description of Visual Effect
Major beneficial effect	The construction or operation of the proposed development would be consistent with the scale, landform and pattern of the landscape, and/or would enrich quality or characteristic features.	The construction or operation of the proposed development would cause significant improvement in the existing view.
Moderate beneficial effect	The construction or operation of the proposed development would fit very well with the scale, landform and pattern of the landscape, and/or would enhance the quality or characteristic features.	The construction or operation of the proposed development would cause noticeable improvement in the existing view.
Minor beneficial effect	The construction or operation of the proposed development would fit well with the scale, landform and pattern of the landscape, and/or would enhance the quality or characteristic features.	The construction or operation of the proposed development would cause minor improvement in the existing view.

Significance of Effect	Description of Landscape Effect	Description of Visual Effect
Negligible beneficial effect	The construction or operation of the proposed development would complement the scale, landform and pattern of the landscape.	The construction or operation of the proposed development would cause barely perceptible improvement in the existing view.
Neutral effect	The construction or operation of the proposed development would cause no discernible deterioration or improvement to the existing landscape.	The construction or operation of the proposed development would cause no discernible deterioration or improvement in the existing view.
Negligible adverse effect	The construction or operation of the proposed development would not quite fit the scale, landform and pattern of the landscape.	The construction or operation of the proposed development would cause barely perceptible deterioration in the existing view.
Minor adverse effect	The construction or operation of the proposed development would not fit the scale, landform and pattern of the landscape, and/or would damage quality or characteristic features.	The construction or operation of the proposed development would cause minor deterioration in the existing view.
Moderate adverse effect	The construction or operation of the proposed development would be out of scale with the landform and pattern of the landscape, and/or would damage quality or characteristic features.	The construction or operation of the proposed development would cause noticeable deterioration in the existing view.
Major adverse effect	The construction or operation of the proposed development would be at considerable variance with the scale, landform and pattern of the landscape, and/or would be detrimental to quality or characteristic features.	The construction or operation of the proposed development would cause significant deterioration in the existing view.

8.4 Baseline Environmental Conditions

8.4.1 The existing baseline landscape character and views have been assessed through a combination of desk study and field work and a series of representative photographs covering the study area are included. Site context and the character of the wider landscape have been described with reference to existing published character assessments covering the study area. A more detailed landscape character assessment has then been carried out for the area local to the site as discussed in more detail later in this chapter.

Site Context

Site Location

8.4.2 The location of the site is shown on Figure 8.1. It lies towards the western edge of Plymouth, Devon, in the Parish of St. Budeaux. The site itself, shown in the aerial photograph on Figure 8.2 covers an area of 10.4 Hectares and is bounded to the north by the Barne Barton housing estate, to the east by the London to Penzance railway line and a watercourse, Barne Brake Creek, which

flows through Weston Mill and is a tributary to the River Tamar. Beyond this to the east lies further housing in St Budeaux and Keyham. It is bounded to the south by Weston Mill Lake and the Ministry of Defence (MOD) base – HM dockyard; and to the west by more MOD land and the Tamar Estuary running north-south in proximity to the site.

AONB

- 8.4.3 The Tamar Valley AONB lies to the west, approximately 1.5km from the site and north, approximately 3km from the site, refer to Figure 8.1. Cornwall AONB is approximately 6km to the south. More than 10km from the site are South Devon AONB to the south-east. The AONBs cover a diverse landscape characterised by hills and valleys, traditional mixed farming, a patchwork of chalk grassland, woodland, picturesque villages and market towns. The proximity of the AONB to the urban areas of Plymouth, Plymstock, Plympton, Saltash and Torpoint makes them popular for outdoor recreation.

National Parks

- 8.4.4 Dartmoor National Park lies approximately 8km to the north-east. It is separated by urban developments (predominantly residential), which traditionally were formed of neighbouring villages, but have now been encircled into the urban expansion of Plymouth.

Topography and Watercourses

- 8.4.5 The topography of the immediate surrounding area is illustrated in 8.3. The Tamar estuary and valley sides are the most dominant topographic feature within the study area (visible in Figure 8.1) running north-south in close proximity to the site. Due to the tidal influence of the estuary, large areas of mud-flats appear daily, along the western banks, in particular. The more distant horizon is formed by elevated elements of Dartmoor National Park in the far distance to the north-east (refer to Figure 8.1).
- 8.4.6 The southern area of the site lies on relatively flat ground adjacent to the north-south tributary to the east and with the Tamar Estuary further to the west beyond the protruding landform of Barne Barton. Directly north of this area are the sloping wooded banks of Blackies Wood which fall towards the site. The topography in this area continues to rise to a point of 65m AOD approximately 0.4km to the north-west. The land to the north-east rises gently on the other side of the tributary streams to 80m AOD 1km away. The effect of this topography is to increase the sense of enclosure within the valley and to provide openness across the valley from areas of higher ground.
- 8.4.7 The land to the south-south-east is lower lying as it forms the banks of the River Tamar with the highest point of 30m AOD being approximately 0.7km away and 53m AOD approximately 1.2km away. On the opposite side of the Tamar the land rises up to the south and west forming the Rame Peninsula. From this westerly perspective the lower level landform around the Dockland area is framed by the higher land behind and dominated by built elements of Plymouth's urban mass.

Vegetation

- 8.4.8 Within the wider study area, vegetation is abundant and diverse. A network of mostly deciduous woodland occupies the sloping ground to the north and north-west of the site. The large-scale buildings and spaces of the Dockyard land-use dominate the western borders of Plymouth along the Tamar Estuary banks. To the north and east is the developed residential settlement of

Plymouth which stretches for over 7km due east, approximately 4km to the north, and 3km to the south-south-east.

- 8.4.9 The dual carriageway of the A38 runs roughly east-west approximately 1.5km from the site. This road corridor is densely flanked by semi-mature woodland planted to screen the road from the neighbouring residential areas. Other mature and semi-mature woodlands are located towards Honicknowle and Tamerton Foliot to the north-east and at Saltram Park to the east of the site. Plymouth contains numerous public parks which comprise largely open grassed area and form a network of green spaces within the built environment; the most significant are Central Park to the east, Victoria Park to the south-east and Devonport Park to the south. This is shown in Figure 8.1.

Settlement and Land-use

- 8.4.10 Settlement to the south of the application site is dominated by the large-scale industrial built form of HM Dockyards. This stretches along the eastern banks of the Tamar Estuary around to Stonehouse at the edge of Plymouth Sound.
- 8.4.11 Residential housing estates have developed to the north and east, merging the parish of St. Budeaux with what were previously three separate conurbations of Devonport, Stonehouse and Plymouth. These areas of settlement are all now encompassed under the urban area of Greater Plymouth. To the north, Plymouth is partially contained by the A38 dual carriageway, however to the north-east the urban development has occurred beyond this with areas such as Honicknowle, Egguckland, Estover and Derriford. The latter of which encompasses the major hospital for the region and the local airport. The residential areas of Plympton and Plymstock lie further to the east, and Saltash and Torpoint lie to the west on the opposite banks of the Tamar Estuary. All of these settlements comprise some pre-war building construction, often in the form of Victorian terraced houses; but are largely dominated by post-war housing and many modern housing estates.
- 8.4.12 The closest housing estate of Barne Barton was originally constructed to house Navy personnel and was built by the MOD, but as the demand for married quarters declined due to the reduction in naval employment, the estate was sold to the local council, and has since been sold to private buyers and housing associations.
- 8.4.13 The area of Camel's Head, due east of the proposed site, contains some residential houses, but also commercial units such as a car sales garage and petrol station, and the fire station, a primary school, and sewage treatment works.
- 8.4.14 The smaller towns of Torpoint and Saltash in Cornwall lie approximately 2km to the west and north-west respectively. Interspersed between and beyond these there are smaller sparse villages and hamlets such as Wilcove, St John's and Maryfield. These are surrounded by mostly agricultural land.
- 8.4.15 Other land uses in the wider study area are predominantly agricultural, with scattered small villages and farmsteads.

Roads, Access and Rail

- 8.4.16 The major trunk route is the A38 running east-west which is deeply cut into the landscape to conceal it from the surrounding residential conurbations. This directly links to the site via the A3064 (Western Mill Drive) at the Camel's Head junction. This dual carriageway is also

accessible via the A386 (Outland Road) which intersects the A3064 at the start of Wolseley Road and then heads north to Camel's Head and the proposed development site.

- 8.4.17 The mainline railway runs in close proximity to the east of the site forming a divide between the residential development of Plymouth and the site and MOD land beyond.
- 8.4.18 Both the railway line and the A38 cross the Tamar River via the Royal Albert Bridge, also known as the Brunel Railway Bridge (1859) and the more recent Tamar Road Bridge (1961) respectively.
- 8.4.19 There are several disused railway lines in the closer vicinity of the site, due to (now highly diminished) historic dockyard activities. These are invariably disused, overgrown and in disrepair.

Recreation

- 8.4.20 The River Tamar has a large number of watersports clubs using the estuary, in particular the area adjacent to the Brunel Railway Bridge. Sailing, canoeing, kayaking amongst other activities all make use of the river directly north of the proposed site. However, the estuary immediately adjacent to the proposed site is regularly used by large Royal Navy ships and submarines and is therefore not used directly by smaller, private vessels, for security reasons. Her Majesty's Naval Base Devonport is the largest Naval Base in Western Europe and is the base port of the largest ship in the Royal Navy, HMS Ocean.
- 8.4.21 The coastline in general attracts large numbers of tourists and recreational activity; the most popular destinations are located away from the proposed development site as the dockyard activity prevents access to the waterfront in the majority of this area. Major tourist destinations such as Whitsand Bay are on the southern facing side of the Rame Peninsula, or Mount Batten and Jennycliff on the eastern side of the Plymouth Sound.
- 8.4.22 There are playing fields at Torpoint approximately 2.4km to the south-west of the site. This is the location of the town fair as well as being popular with dog-walkers and being used for informal recreation. There are also playing fields at Wearde (near Saltash) with visual links to the development site. Other playing fields close to the site within Plymouth, such as Central Park and Tamarside Community College in King's Tamerton, are physically and visually separated from the site by the intervening urban built form, as well as the topography and vegetation.
- 8.4.23 The study area has a comprehensive network of public rights of way, particularly north of the A38 leading into the Dartmoor National Park and to the south-west in the area of the Rame Peninsula, Mount Edgcumbe and Antony House. The South West Coastal Path, the long-distance public right of way is an important recreational route locally and lies over 3.6km south of the site. This skirts the southern coast, crossing the Tamar between Cremyll and Stonehouse.

Lighting

- 8.4.24 Street lighting is present in residential areas of nearby settlements including Barne Barton and Camel's Head and along roads running throughout the study area including the A38. The Parkway and A3064 Weston Mill Drive. Other light sources include houses and commercial and industrial areas, in addition to vehicles on local roads, especially the busy A38.
- 8.4.25 The MOD HM Dockyard is highly illuminated in specific areas throughout the hours of darkness. This is largely for security purposes as well as general operations. Irregular training exercises

can also take place at night requiring floodlighting, and there are numerous navigational lights along the estuary in this area.

- 8.4.26 There is also general light glow from the wider built up area of Plymouth and St Budeaux which wraps around much of the site – the exception being to the west.

Landscape Character Assessment

- 8.4.27 A number of landscape character assessments have been carried out for the area and these are discussed in order of scale below. These have been used to form a general understanding of the character of the landscape surrounding the site.

Countryside Agency 2002

- 8.4.28 The site lies within the South Devon (151) 'Joint Character Area' (JCA), one of 159 such landscape character areas in England as defined by the Countryside Agency (now Natural England) in its Landscape Character Map of England (2002) shown in Extract 1, Appendix 8.2. This character area extends west to east from Gunnislake in eastern Cornwall to Torquay in Devon. The Landscape Character Assessment for this JCA ('Landscape Character Assessment: Guidance for England and Scotland', The Countryside Agency and Scottish Natural Heritage, 2002) describes the key characteristics as follows:

- *'Rounded hills, without a strong pattern, separated by steep, intricate wooded valleys.*
- *Red and pink soils appear when parts of this mixed farming area is ploughed.*
- *Wooded rias with large expanses of tidal water and mudflats, extending far inland.*
- *Diverse and complex coastline with fine scenery and spectacular views, often looking deep inland along the rias.*
- *Sunken lanes link numerous farmsteads and hamlets, with cob, slate and thatched buildings.*
- *Wildflower rich, often treeless, Devon banks.*
- *Villages and towns generally in sheltered valley locations, with towns located at the heads of the rias.*
- *Distinctive landscape of ball clay extraction in the Bovey Basin.*
- *Cliffs and long, sandy beaches.'*

- 8.4.29 These characteristics are not largely applicable to the proposed site:

- The northern section of the site, Blackies Wood is a steep wooded valley but there is no farming land in the immediate vicinity of the site itself.
- The site, the Dockyard and Plymouth in general also does not contain sunken lanes.
- There are very few Devon banks in the vicinity of the site due to the urban proximity.
- Plymouth is located along the waterfront of the ria and is therefore not located at the head, and is therefore a typical of this characteristic.

- The majority of the waterfront within the study area comprises mainly of mudflats rather than sandy beaches and in the immediate vicinity of the site, the waterfront is dominated by the industrial dockyard character.

Adjacent to the site is JCA 'Cornish Killas' 152 from the same study. The characteristics cited for this area which are experienced from the site are:

- *“Outstanding historic parks, mainly in the sheltered valleys in the south.*
- *Generally a dispersed settlement pattern of hamlets, farmsteads and small fishing villages.*
- *Variable field pattern dominated by stone-built Cornish hedges”.*

8.4.30 This JCA experiences the backdrop of the Dockyard adjacent to the site from across the Tamar Estuary.

Devon Landscape Character Appraisal

8.4.31 'The Devon Landscape – An appraisal of Devon's Landscape at the beginning of the 21st Century' (2002), was produced by Devon County Council. This divides the national JCAs within Devon into 6 major sections and 32 'Landscape Character Zones' (LCZ). The site lies within the Dartmoor and West Devon section of JCA 151 and within LCZ 29: 'Plymouth City, Estuary and Environs' (see Extract 2, Appendix 8.2). It is also close to the boundary with LCZ 32: 'Tamar and Tavy Valleys', which lies to its north.

8.4.32 This Appraisal is in the process of being updated and a later version has not been adopted or published at the time of writing. The assessment conforms to the Landscape Character Assessment Guidance for England and Scotland (2002) published by the Countryside Agency and Scottish Natural Heritage. Landscape character types and areas are identified at the County level together with strategy options for each character type.

8.4.33 The characteristics for these two landscape character zones are described below.

The area the site lies within:

29: Plymouth City, Estuary and Environs

- *“Historic Waterfronts and dockyards surrounding a vast natural harbour.*
- *Water-based features – quays, marinas, dockyards, breakwaters, buoys, naval installations, Tamar Bridges*
- *Water activity – ferries, yachts, dinghies, warships, sightseeing boats, fishing vessels, commercial shipping.*
- *Parkland, hilltop planting, tree features, steep wooded slopes, ridges and valleys.*
- *Skyline of Dartmoor as a backdrop.*
- *Variety of ecological habitats – cliffs, tidal estuaries, wooded valleys.*
- *Housing estates with regimented layouts often unsympathetic to landform.”*

The wider study area to the north:

32: Tamar and Tavy Valleys

- *“Historic transport route, with quays, lime kilns, old ferry points, stone bridges.*
- *Wide estuary landscape lined with wetlands.*
- *Tidal middle valley with creeks, wetlands and wooded sides.*
- *Granite ridge giving gorge-like qualities.*
- *Mining heritage, including chimneys.*
- *Market gardens and orchards.*
- *Landscaped estates.”*

Cornwall Landscape Character Appraisal

8.4.34 In 2007, Cornwall County Council (now Cornwall Council) appointed Diacono Associates (as coordinators of the Living Landscapes Project), in conjunction with White Consultants, to produce The Cornwall and Isles of Scilly Landscape Character Study 2005-2007. This divides the national JCAs within Cornwall into 335 non-urban Landscape Description Units [LDUs] and 40 Landscape Character Areas [LCAs]. Refer to Figure 8.4 to show the LDUs and LCAs within the study area. Two of these are not visible from the site and are intervened by closer LCAs, therefore the three closest and likely to be of influence from the site are set out below, extracts from their listed distinct characteristics are noted below:

8.4.35 CA25 Lynher and Tiddy river valleys:

- *“Estuarine landscape of winding inlets, extensive intertidal zones, with intertidal Mudflats, large areas of Coastal Saltmarsh and a Saline Lagoon; very well used by watersport enthusiasts.*

8.4.36 CA26 East Cornwall and Tamar moorland fringe

- *Steeper valley sides clothed with mixed woodland on ancient woodland sites.*

8.4.37 CA27 Lower Tamar and Tavy valleys

- *“Unsettled intertidal zones of lower river valleys.*
- *River Tamar is major influence.”*

8.4.38 These Character Areas despite their proximity to the site bear only localised resemblance to the character of the eastern bank of the Tamar in this area. It is evident that there has been a far greater intervention in the natural landform on the eastern bank of the estuary in this location than on the west.

Baseline Landscape Character Assessment of the Study Area

8.4.39 Whilst the character of the wider study area, as illustrated in Figure 8.5 is effectively described in The Devon Landscape, the diversity of landscape in proximity to the proposed development requires a more detailed assessment of landscape character. As part of this study, the assessment of landscape character has therefore been taken to the next level of detail to

specifically assess the landscapes within the vicinity of the application site. A total of five LCTs have been identified as illustrated also in Figure 8.5, based on sub-divisions of The Devon Landscape zones described above. For continuity, these LCTs have also been applied to areas in Cornwall, whilst taking note of the Landscape Character Areas set out by Cornwall County Council.

8.4.40 In some cases LCTs appear more than once within the study area. To take account of this and local variations in landscape areas of the same type, LCTs have been further classified into LCAs, which are summarised in Table B at Appendix 8.1 of this chapter. This structured method allows a more detailed assessment of the baseline character of each area and aids the process of impact assessment covered later in this chapter.

8.4.41 The LCTs and LCAs identified are as follows:

LCT 1: Waterfronts and dockyards

LCA 1a: HMS Dockyard at Devonport,

LCT 2: Tidal estuaries

LCA 2a: Broad tidal estuaries

LCA 2b: Inland rias

LCT 3: Parkland landscapes

LCA 3a: Antony House,

LCA 3b: Mount Edgumbe

LCT 4: Rolling hills, farmland and villages

LCA 4a: Scattered small villages and hamlets located within rolling farmland

LCT 5: Urban environment - to include housing estates, urban parks and open spaces, hospitals schools, airports, commercial activities etc

LCA 5a: Plymouth and Environs

LCA 5b: Torpoint

LCA5 c: Saltash

8.4.42 These LCAs are described in detail and evaluated on Sensitivity in Table B1, Appendix 8.1.

8.4.43 There is additional local level character assessment in the form of 'The Greenscape Assessment for Plymouth', undertaken in 2000¹³ and updated in 2004¹⁴. This assessment reviews the 'Built Environment' of Plymouth and categorises the proposed development site – including Blackies Wood – as 'Industrial. The assessment also categorises Blackies Wood as 'Scrub / Rough Grassland under the assessment of 'Landscape Types'. The main area of the proposed site is not categorised under 'Landscape Types', refer to Figure 8.6.

8.4.44 The Greenscape Strategy also assesses 'Landscape Character' and shows the site to be within the 'Area 18 - Barne Barton and Saltash'. Despite the site being land still owned by the MOD, unlike the residential area of Barne Barton, the main section of the site (the area of the proposed building) would be more appropriately categorised within the adjoining 'Area 17 – Dockyards'.

8.4.45 The Description and characteristics of 'Area 17 – Dockyards' include:

- *“The landform is relatively level gently sloping towards the water’s edge. The area overlooks the Hamoaze to the west and is bounded to the north, south and east by a distinctive change in land use; moving from industrial docklands to pre war terrace housing”.*
- *“Mainly large scale, blocks of industrial buildings and dockyards.”*

8.4.46 The description and characteristics of ‘Area 18 Barne Barton and Saltash’ are far less applicable to the site, with references of open sports fields and terrace housing. There is no mention of steep wooded valley sides, which might describe the character of Blackies Wood. The only accurate element of relevance to the site is:

- *“...from Barne Barton views across to Wearde Quay on the western edge of the Tamar and the city centre.”*

8.4.47 Although, these ‘views’ are more limited from the lower elevation of the proposed site than from the residential area of Barne Barton.

8.4.48 These local level assessments are taken into consideration in the landscape proposals and within the character assessment below.

Summary of Landscape Character

8.4.49 There are 5 LCTs present within the study area, some of which are extensive and mostly homogeneous such as LCT1: Waterfronts and dockyards, and despite being the smallest LCT in the study area, it exerts a great influence on surrounding areas, such as LCT 2: Tidal estuaries and LCT 5: Urban environment. This dockyard creates a strong influence on the character of the surrounding areas through the introduction of massive scale components; these are complimented by the large sweeping landform and fields of LCT 4: Rolling fields and farmland; and the expanse of the estuary adjacent to them.

8.4.50 The effect of agriculture (LCT 4) and estate planting (LCT3) on the landscape is also of particular importance, eliminating the original land pattern, introducing artificial landforms and boundaries and shaping road networks.

8.4.51 There are also areas of high landscape quality within the study area such as the Rame Peninsula AONB, South Devon AONB and the Tamar Valley AONB. To some extent these landscapes have already adapted to the influence of the waterfront land uses, including large-scale dockyard and industrial activities.

Landscape of the Site and Surrounding Land

8.4.52 The landscape of the existing site is shown on the aerial photograph at Figure 8.2. The existing character of the site and its surroundings is also illustrated by means of a representative selection of photographs (referenced A to F); the photographs and their locations are shown on Figures 8.7.1 to 8.7.2.

8.4.53 The site is largely derelict and underutilised. The main central area of the site was until recently leased to a company processing construction demolition materials (this company has now ceased trading) and there are prominent storage piles, in the form of industrial components such as pipes, steel girders and aggregate spoil/rubble heaps. It is also littered with mobile site cabins, shipping containers and skips; until very recently, heavy plant machinery had traversed the site for processing and storing the building materials. Generally, the area where these are operating

is untidy, unsightly and littered with abandoned vehicles and debris, as illustrated by Photographs A and B (Figure 8.7.1). However, it is acknowledged that there is an obligation from an existing planning permission for the site to be restored to its former condition as a storage and car parking area.

- 8.4.54 The northern and western areas of the site are dominated by sloping, semi-natural, broadleaved woodland known as 'Blackies Wood' (refer to Figure 8.7.1, Photographs A, B and E) rising from the central area of the site forming a south-eastern facing slope. The wood contains a disused railway cutting through the centre in an east-westerly direction which creates an open cutting in the vegetation along its western section (refer to Figure 8.7.2, Photograph C). Other than this, the vegetation is dense and has had very little management. In the lower reaches the derelict ground is encroached by scrub. The enclosure provided by this woodland is increased by the low topography of the main area of the site.
- 8.4.55 There is also a vegetated margin to the east of the site, adjacent to the small watercourse, Barne Brake Creek. This is predominantly natural regeneration and buddleia is dominant along the banks (see Figure 8.7.2, Photographs C and D).
- 8.4.56 Both Barne Brake Creek and Weston Mill Stream are regularly used for fly tipping and are choked in certain places with large-scale debris. Both waterways are tidal and in low tide expose large area of mudflats. This dictates the flora and fauna and contributes strongly to the character and use of these features.
- 8.4.57 The area to the east beyond the stream consists of similar buddleia-dominated banks with areas of grassland and a semi-natural immature broadleaved woodland buffer strip running parallel along some bunding, adjacent to the railway line (shown in the background of Photograph C (Figure 8.7.2)). The localised enclosure provided by this buffer strip partially separates the site from the railway and almost completely from the residential properties directly beyond.
- 8.4.58 The existing access across the watercourse is formed of two single, level roads, under which the water is culverted. This is proposed to be replaced by a single bridge structure under which the water will flow freely.
- 8.4.59 Lighting within the site is limited to the existing boundary fences along the north, east and west which is currently kept on for security purposes. There is some light spill from the adjacent residential areas to the north and east, however more of this emanates from the Dockyard's internal road lighting, higher intensity sports field flood lighting and low intensity internal lighting. Some flood lighting is required irregularly for operations on Table Top Mountain. The remainder of the site is un-lit.
- 8.4.60 A Tree Survey was prepared for the application site by Scott Wilson in October 2010. This is included at Appendix 8.3. A total of 10 individual trees and 2 tree groups were surveyed within the site. The inner area of Blackies Wood was not surveyed as development is not proposed within the woodland, only management.
- 8.4.61 The majority of trees on the site are above 15m in height with only one tree at 10m. All of the trees were of a 'Fair' or 'Fair/Good' physiological condition in accordance with the requirements of BS5837(2005). All of the surveyed trees were classified as 'Mature'. With regards to retention value, five of the trees were categorised 'C2' and five as 'B2', meaning respectively 'low quality' specimen and of 'landscape value' within this setting and 'moderate quality' specimen and of

'landscape value' within this setting. There are no top-category 'A' trees within the surveyed trees on site.

- 8.4.62 The tree groups which were surveyed are to the southern end of Blackies Wood, adjacent to the proposed building location. They are generally semi-natural broadleaved woodland, with dense understoreys and show little sign of management.
- 8.4.63 The area known as 'Table Top Mountain' lies to the south and is slightly elevated from the main development site. This is adjacent to Weston Mill Lake, a deep, rectangular harbour used for docking large naval vessels, the scale of which is demonstrated in Photograph F (Refer to Figure 8.7.2). This site is used for storage by the landowner (MOD), and represents a similarly untidy intrusive visual element due to the large area of exposed surface material and storage elements. It is proposed to use this area for the contractor's compound although no permanent development is proposed for this area and it will revert to MOD storage use after construction is completed. Impacts of this temporary use for construction are considered in the assessment.

Visual Receptors and Views

- 8.4.64 A schedule of visual receptors is included in Table C at Appendix 8.1. The locations of the 43 individual visual receptors or receptor groups identified within the ZVI are referred to as Receptors 1 to 43. Their locations are shown in Figures 8.8.1 to 8.8.4. Summer and winter photographs are shown in Figures 8.9.1 to 8.9.54. The receptors are as follows:

Table 8.3: Table of Visual Receptors and Viewpoints

Receptor	Viewpoint	Name
1	1	Residents of Poole Park Road, Barne Barton
2	2	Residents of Furze Park, Barne Barton
3	3	Residents of Talbot Gardens, Barne Barton
	3a	Residents of Talbot Gardens, Barne Barton
	3b	View from sitting room window, No. 21 Talbot Gardens**
4	4	Residents of Savage Road, Barne Barton
	4a	Mid point outside front of 1-12 Savage Road flats**
	4b	Mid point outside front of 13-18 Savage Road flats**
	4c	Mid point outside front of 19-30 Savage Road flats**
	4d	Residents of Savage Road, Barne Barton
5	5	Users of Woleseley Road (north)
6	6	Residents of Cardinal Avenue
7	7	People travelling by train
8	8	Residents of Hamoaze Avenue
9	9	Residents of Carlton Terrace
10	10	Users of Bridwell Road (Central)
	10a	Users of Bridwell Road (East)
11	11	Residents of Church Way
12	12	Residents of North Prospect Road (north)
13	13	Users of Camel's Head - Sports Grounds
	13a	Users of Camel's Head - Weston Mill Drive Junction
	13b	Users of Camel's Head - Road Junction
14	14	Users of Weston Mill Cemetery
15	15	Users of Saltash Road (east)
16	16	Residents of Saltash Road (north)
17	17	Residents of Woleseley Road (central)
	17a	Residents of Woleseley Road (north)

18	18	Residents of Royal Navy Avenue
18a		Users of Marley Park Recreation Ground
19	19	Users of Alexandra Park
20	20	Users of St Budeaux Recreation Ground
21	21	Residents of Pemros Road
22	22	Residents and Users of Saltash Pier
23	23	Users of the Tamar Bridge (West)
24	24	Users of Public Footpaths and Bridleways off Wearde Road
25	25	Residents of Wearde Quay
26	26	Users of Jupiter Point, Anthony
27	27	Users of Anthony Park Woodland Walk (National Trust)
28	28	Users of Anthony House (National Trust)
29	29	Residents of Maryfield Village
30	30	Residents of Coombe Park and Wilcove
	30a	
31	31	Users of Cove Head Jetty
32	32	Users of Torpoint Recreation Ground
33	33	Residents of Torpoint
	33a	Residents of Torpoint
34	34	Users of Torpoint Ferry
	34a	Users of Torpoint Ferry
	34b	Users of Torpoint Ferry
35	35	Users of Devonport Park
36	36	Residents of Devonport
37	37	Users of Mount Pleasant Redoubt, Stoke
38	38	Users of the B3247, Mount Edgcumbe (East)
	38a	Users of the B3247, Mount Edgcumbe (Central)
	38b	Users of the B3247, Mount Edgcumbe (West)
39	39	Users of the Deer Park, Mount Edgcumbe Estate
40	40	Users of the Road between Millbrooke and St. John
41	41	Users of the Road between St. John and the A374
42	42	Users of Public Footpaths, South-west Dartmoor National Park
43	43	Users of Staddon Heights, Staddiscombe

- 8.4.65 A representative selection of 59 photographs numbered 1 to 43 (including some receptors represented by more than one photograph, referenced 'a', 'b', etc., and multiple receptors represented by one photograph) are used to indicate the range of angles and distances of views towards the site and, in some cases, to illustrate why the site is not visible.
- 8.4.66 The locations of the viewpoints were agreed through discussion with the Urban Planning Coordinator at Plymouth City Council (October 2010) and subsequent liaison with this Officer and other Planning Officers. Photographs have been taken to represent both winter and summer views to show seasonal variation, in particular the changes caused by intervening vegetation.
- 8.4.67 These views are referred to in turn below:
- 8.4.68 **View 1** (Figure 8.9.1) Receptor 1, Residents of Poole Park Road, Barne Barton; looking south-east towards the site from the pedestrian footpath shows the residential development of Barne Barton housing estate in the immediate foreground. The distant views of the existing dockyard with its large scale industrial construction are visible in the further distance. The Tamar Estuary is visible due south through brief glimpses between houses. Due to this setting and the intervening buildings, these receptors are of **high** sensitivity.

- 8.4.69 **View 2** (Figure 8.9.2) Receptor 2, Residents of Furse Park, Barne Barton; looking east towards the site from the road at Furse Park, Blackies Wood is separated from the public land by a weldmesh and barbed wire security fence. From the road there are oblique glimpse views to the area known as 'Table Top Mountain' and very limited glimpses to the site in winter. Residents in the upper storey of their 2-storey dwellings would be elevated and are likely to gain brief oblique glimpses of the upper elements of the proposed building beyond the intervening vegetation and tall buildings on Talbot Gardens. These residential houses are orientated in a south and south-west direction and therefore the site is only visible from a peripheral perspective. These receptors are therefore of **high** sensitivity.
- 8.4.70 **Views 3, 3a, and 3b** (Figures 8.9.3 & 4) Receptor 3, Residents of Talbot Gardens, Barne Barton; looking east towards the site from the road at Talbot Gardens between the 6-storey residential blocks, the site is obliquely visible through the intervening vegetation of Blackies Wood in the foreground. The main vista is across the expanse of 'Table Top Mountain' and the dockyards. The blocks are orientated in a south-easterly direction which is due west of the proposed development site, thus views which are afforded from the key windows, such as sitting rooms only receive oblique views of the site. They also have clearer distant views across the Dockyard and the Estuary, to the south of the site. The upper residents of the blocks of flats **with smaller side windows (facing east)** would be elevated above the canopy of the trees in the foreground and would gain clearer views of the site in the context of the backdrop of the city of Plymouth and neighbouring residential blocks in the immediate foreground. In this context therefore, these receptors are of **high** sensitivity.
- 8.4.71 **Views 4, 4a, 4b, 4c, 4d** (Figures 8.9.5 & 6) Receptor 4, Residents of Savage Road, Barne Barton; looking south-east in direct alignment with the orientation of these dwellings, the view shows the dense vegetation of Blackies Wood in the lower foreground as well as several street trees. The situation of these receptors allows direct views, with clear panoramic views of the built urban form of Weston Mill further east and the Dockyard and Tamar Estuary further south. These views are seen in the context of the Dockyard construction immediately beyond with the existing very large scale buildings and docks and associated cranes and infrastructure used for refitting warships and submarines. These residences are more elevated than those shown in Views 3 and set more elevated and further back from the site. Views onto the Table Top Mountain are obscured by localised intervening vegetation within Blackies Wood. The blocks are comprised of 3-storeys with individual flats on each level. These receptors are of **high** sensitivity.
- 8.4.72 **View 5** (Figure 8.9.5) Receptor 5, Users of Wolseley Road (north); vehicular and pedestrian traffic using Wolseley Road heading south from the centre of St. Budeaux do not gain views of the site due to the existing Lidl building and intervening topography of Blackies Wood and the elevated railway embankment. This is seen in the context of the existing buildings of the Barne Barton Estate on the intervening elevated land. These receptors are of **low** sensitivity.
- 8.4.73 **View 6** (Figure 8.9.6) Receptor 6, Residents of Cardinal Avenue; looking towards the site from this elevated position, the middle distance is dominated by Blackies Wood and with the backdrop of the industrial dockyard buildings and cranes dominant in the panoramic view, which includes the Tamar Estuary and large ships creating a very industrial and large-scaled view. In addition is the dramatic backdrop of the rolling hills of Cornwall in the distance. These receptors have a **high** sensitivity.
- 8.4.74 **View 7** (Figure 8.9.7) Receptor 7, Train passengers; users of the train line in the close vicinity gain clear brief, moving views of the site, as for View 6, these are in the context of the existing large-scale dockyard buildings and associated infrastructure. Receptors' views are relatively

brief. However, because trains using this section of railway travel relatively slowly due to the topography, and because many train users are likely to be visitors to the South West of England, the receptors are classed as having a **medium** sensitivity.

- 8.4.75 **View 8** (Figure 8.9.8) Receptor 8, Residents of Hamoaze Avenue; residents living at the northern end of the Western side of Hamoaze Avenue will gain views from the upper windows of the rear of their two-storey properties, although the railway embankment and fencing will be in the foreground of these views. As the photograph indicates, the lower levels will not gain clear views due to the intervening vegetation, railway embankment and fencing. From the upper rear windows however, it is anticipated that glimpse views may be gained beyond the railway line and existing woodland buffer strip into the development site in the middle distance. As for above, this will be in the context of the existing dockyard and Cornwall backdrop. These receptors will have a **high** sensitivity.
- 8.4.76 **View 9** (Figure 8.9.9) Receptor 9, Residents of Carlton Terrace; residents of this terrace are orientated south-west rather than in a due westerly direction towards the proposed site, therefore views are predominately oblique rather than directly into the site. Existing views are dominated by the dockyard large-scale industrial form with the horizon formed of the backdrop of Cornwall. These receptors are of **high** sensitivity.
- 8.4.77 **Views 10 and 10a** (Figure 8.9.10) Receptor 10, Users of Bridwell Road; the terraced dwelling on this road are perpendicular to the site with no side windows and therefore, it is the users of the road being assessed rather than the residents. The limited narrow distant view from this location shows the site in the middle distance beyond the intervening vegetation and houses. In the more distant view are the dockyard buildings and cranes. These receptors are of **low** sensitivity.
- 8.4.78 **View 11** (Figure 8.9.11) Receptor 11, Residents of Church Way; these residences face perpendicular to the site, affording only oblique views. These brief peripheral views encompass the context of the dockyard which is clearly visible, but are dominated by the Tamar estuary and the Cornish backdrop. These receptors will have **high** sensitivity.
- 8.4.79 **View 12** (Figure 8.9.12) Receptor 12, Residents of North Prospect Road; looking west in the direction of the site cannot gain views of the site above the line of the existing vegetation and intervening residential buildings. The existing dockyard cranes and buildings, which break the horizon, create an industrial setting into which the proposed development would be located. The horizon is formed of Cornwall in the far distance and Barne Barton. These receptors have **high** sensitivity.
- 8.4.80 **Views 13a, b and c** (Figure 8.9.13) Receptor 13, Users of Weston Mill Drive and Camels Head; users of the road and recreation ground do not currently gain views of the proposed site. The existing fences, trees, buildings, the viaduct and railway embankment all form various screens into the site. These receptors have **low** sensitivity.
- 8.4.81 **View 14** (Figure 8.9.14) Receptor 14, Users of Weston Mill Cemetery; Looking towards the site across the cemetery, the proposed site is not discernable in the distance beyond the intervening housing and vegetation. The houses of Barne Barton are visible in the far distance forming the horizon. These receptors are of **medium** sensitivity.
- 8.4.82 **View 15** (Figure 8.9.15) Receptor 15, Users of Saltash Road (east); do not afford clear views of the site due to the low level intervening Dockyard buildings and vegetation and parking in the foreground. In addition the taller element of the railway viaduct also prevents views into the site.

Users of this road experience the chainlink fence in the foreground, backed by the car park area of part of the These receptors are of **low** sensitivity.

- 8.4.83 **View 16** (Figure 8.8.16) Receptor 16, Residents of Saltash Road (north); this receptor affords a clear brief view of the site along the line of the railway and beyond the large-scale dockyard buildings and sports pitches. The backdrop of Blackies Wood lies behind to the north and Barne Barton forms the elevated horizon to the view. These receptors have a **high** sensitivity.
- 8.4.84 **Views 17 and 17a**, (Figure 8.9.17) Receptor 18, Residents of Wolseley Road (north and central); residents in this area from more elevated locations with upper windows in the 2-storey buildings unable to gain oblique views of the site for reasons of intervening topography, vegetation and residential developments. Properties in this area are orientated in a south-western or western alignment and views are not direct as the site lies relatively due south. There are further housing estates dominating the skyline in this area in the form of St. Budeaux and Kings Tamerton. These receptors are of **high** sensitivity.
- 8.4.85 **View 18** (Figure 8.9.18) Receptor 18, Residents of Royal Navy Avenue; the rear of these 2-storey residences faces towards the site at a slightly oblique angle, with a panoramic distant view across residential development of Plymouth and to the west, the dockyard. Several large-scale old dockyard buildings are in the middle-distance of the view, and the horizon is formed of the elevated Barne Barton development. These receptors are of **high** sensitivity.
- 8.4.86 **View 18** (Figure 8.9.18) Receptor 18a, Users of Marley Park Recreation Ground; have similar views from within the recreation ground of expansive panoramas of the urban development of Plymouth. The entire view is cluttered with rooftops and scattered trees. The users of the park have a **medium** sensitivity.
- 8.4.87 **View 19** (Figure 8.9.19) Receptor 19, Users of Alexandra Park; Facing towards the site, users of Alexandra Park will gain direct distance views of the proposed development. The existing views are wide reaching across the rooftops of Plymouth, which appears densely developed, and which extends across the large-scale dockyard buildings. Similar to the previous View 18, Blackies Wood is visible as a swathe of vegetation in the distance, with Barne Barton forming the elevated line of the horizon. These receptors would be of **medium** sensitivity.
- 8.4.88 **View 20** (Figure 8.9.20) Receptor 20, Users of St Budeaux Recreation Ground; clear views of the site are gained from the elevated area in the north of the ground. The views are extremely wide and far reaching across vast areas of Plymouth and the large-scale industrial dockyard. These existing huge buildings dominate the horizon, with the back drop of the Tamar Estuary and the Cornish Rame Peninsula behind. These receptors would be of **medium** sensitivity.
- 8.4.89 **View 21** (Figure 8.9.21) Receptor 21, Residents along Pemros Road; from these residences, the site is not visible due to the intervening topography and houses on the elevated land in Barne Barton. These receptors would be of **high** sensitivity.
- 8.4.90 **View 22** (Figure 8.9.22) Receptor 22; Residents and users of Saltash Pier; facing towards the south-east the intervening landform of Barne Barton prevents views into the site. The location affords wide ranging estuary views to the north, east and south. These receptors would be of **medium** sensitivity.
- 8.4.91 **View 23** (Figure 8.9.23) Receptor 23, Users of the Tamar Bridge (west), vehicular and pedestrian traffic along this major access route do not gain any views of the proposed development site. The views comprise of wide ranging panoramic views up and down the Estuary and across to the

- housing estate of Barne Barton. The direct views from this location would either be directly across the Bridge or due north-south up and down the River, The receptors are of **low** sensitivity.
- 8.4.92 **View 24** (Figure 8.9.24) Receptor 24, Users of the public footpaths and bridleways of Wearde Quay: From the public footpaths and bridleways in this area, there are glimpses across the Estuary to the industrial dockyards which dominate the eastern banks. The proposed development site is concealed by the intervening housing which dominates the higher ground in front. These receptors are of **medium** sensitivity.
- 8.4.93 **View 25** (Figure 8.9.25) Receptor 25, Residents of Wearde Quay: facing the site from this small cluster of residential houses, the site is not visible behind Kinterbury Point and the MOD buildings (Bull Point) which are scattered across the hillside. The views from this point are far reaching and diverse with the dominant large-scale buildings and cranes of the dockyard creating an industrial landscape and distant views south-east along the Estuary. The receptors are of **high** sensitivity.
- 8.4.94 **View 26** (Figure 8.9.26) Receptor 26, Users of Jupiter Point; facing east towards the site from Jupiter Point, the chainlink fence of the HMS Raleigh Training Centre is in the foreground and beyond this, the landforms on the western and eastern sides of the estuary prevent the site from being visible. Users of this area would predominantly be recreational users accessing the waterway or MOD employees carrying out training. The receptors in this location will have **low** sensitivity.
- 8.4.95 **View 27** (Figure 8.9.27) Receptor 27, User of Antony Park woodland walk; facing the east from the woodland walks within the grounds of Antony House, members of the public are prevented from gaining views of the proposed site due to the existing rolling fields and private plantations in the foreground. Users of the woodland are predominantly walking to enjoy the flora and fauna and glimpsed long distance views of the Lynher River. Receptors in this location will have **medium** sensitivity.
- 8.4.96 **View 28** (Figure 8.9.3428) Receptor 28, Users of Antony House; facing towards the site whilst driving into/out of the site, visitors and residents of Antony House gain brief oblique glimpses of the Dockyard and general views of the eastern banks of the Estuary. These views are very limited due to the distance as well as the intervening mature vegetation and landform. Receptors are invariably travelling by vehicle in a perpendicular direction to the glimpse views and therefore are of **low** sensitivity. There are no views from within the House.
- 8.4.97 **View 29** (Figure 8.9.29) Receptor 29, Residents of Maryfield Village; facing east from Maryfield the far distant landscape is cluttered with the housing estate of Barne Barton and the Dockyard buildings and cranes. The dark green swathe of Blackies Wood is discernable behind two Dockyard cranes. The site is therefore mostly screened by this woodland. The receptors would have **high** sensitivity.
- 8.4.98 **Views 30 and 30a** (Figure 8.9.30 & 30a) Receptor 30, Residents of Coombe Park and Wilcove; facing north-east towards the site the views are wide and far reaching. The landscape is dominated by the dockyard, large-scale buildings and infrastructure (including the transient huge warships which frequent Weston Mill Lake). The site is set back from the immediate waterfront, behind existing MOD buildings. These views are broken by intervening vegetation and landform in the foreground. The receptors would have **high** sensitivity.
- 8.4.99 **View 31** (Figure 8.9.31) Receptor 31, Users of Cove Head Jetty; wide panoramic views are afforded from this receptor of the eastern bank of the estuary. As for viewpoints 30 and 30a,

these views are dominated by the industrial dockyard architecture. The site is located behind existing Dockyard construction and is at a great distance from the receptor. Users of this area are predominantly recreational and are therefore of **medium** sensitivity.

- 8.4.100 **View 32** (Figure 8.9.32) Receptor 32, Users of the Torpoint Recreation Ground; during the summer months there is very limited views across to the site due to intervening dense vegetation and landform. This is only slightly increased in the winter months due to the density. Views up and down the estuary are largely screened for this receptor. The users of this area for recreation would indicate that the receptors are of **medium** sensitivity.
- 8.4.101 **Views 33 and 33a** (Figure 8.9.33 & 33a) Receptor 33, Residents of Torpoint, facing towards the site, residents are afforded long distance views formed of glimpses between intervening vegetation and buildings in the foreground. The eastern side of the estuary is dominated by built form, including the large elements of the dockyard architecture. The proposed site is barely discernable, concealed partially by intervening vegetation within Torpoint but also behind the Weston Mill Lake area of the Dockyard. The receptors with these residences are of **high** sensitivity.
- 8.4.102 **View 34, 34a and 34b** (Figure 8.9.34, 34a & 34b) Receptor 34, Users of Torpoint Ferry; facing north towards the site, the receptor affords a much cluttered vast view dominated by the large-scale Dockyard buildings and cranes, and transient ships on the waterfront. The views also extend up and down the Estuary and across to the open rolling hills of Cornwall. The site is barely visible from this location and is set behind the industrial form of the existing dominant architecture. These receptors are predominantly travelling across the ferry in transit and are therefore of **low** sensitivity.
- 8.4.103 **View 35** (Figure 8.9.35) Receptor 35, Users of Devonport Park; facing north towards the site from within the Park, the existing blocks of Talbot Gardens, Barne Barton are visible within the distant urban landscape. The site is concealed due to the elevated intervening topography and vegetation. The existing view is dominated by the massive DML dry dock buildings. These receptors are of **medium** sensitivity.
- 8.4.104 **View 36** (Figure 8.9.36) Receptor 36, Residents of Devonport; facing north towards the site will gain slight glimpses, of the site. These views are mostly from the upper storeys of the 3-5-storey buildings and direct views are mostly from the rear of houses. The site is in the far distant view and within the context of the industrial dockyard buildings which spreads southwards towards the Devonport residences. These receptors are of **high** sensitivity.
- 8.4.105 **View 37** (Figure 8.9.37) Receptor 37, Users of Mount Pleasant Redoubt, Stoke; facing towards the site the users of this park gain spectacular 360 degree panoramic views across Dartmoor, Plymouth, Eastern Cornwall and the Plymouth Sound, etc. The proposed development site forms a relatively small element of this vast panorama. The residential blocks at Talbot Gardens, Barne Barton are barely discernable amongst the vast carpet of rooftops. The dockyard forms a strong architectural area with its large-scale and tall cranes. These receptors are of **medium** sensitivity.
- 8.4.106 **View 38, 38a, 38b** (Figure 8.9.38, 38a, and 38b) Receptor 38, Users of the B3247, Mount Edgcombe: Vehicular traffic on this road facing towards the site will gain extremely limited glimpse views of the proposed development, engulfed within the large-scale industrial architecture of the existing dockyard which the moving traffic experiences in brief short vistas. These receptors are of **low** sensitivity.

- 8.4.107 **View 39** (Figure 8.9.39) Receptor 39, Users of the Deer Park, Mount Edgcumbe Estate; facing towards the site to the north, spectacular long distance views are afforded. The urban mass of Plymouth and Torpoint dominate the skyline. The extent of the Industrial large-scale architecture of the Dockyard is also clearly visible. The existing residential blocks of Talbot Gardens, Barne Barton adjacent to a dark green swathe of Blackies Wood are barely decipherable in the centre of the panorama. Users of the Deer Park are of **medium** sensitivity.
- 8.4.108 **View 40** (Figure 8.9.40) Receptor 40, Users of the road between Milbrook and St John; facing towards the site in the direction of travel, the buildings of the dockyard and Plymouth dominate the landscape. HMS Raleigh is in the foreground adjacent to Torpoint. These receptors are predominantly vehicular traffic, travelling at a medium speed and are of **low** sensitivity.
- 8.4.109 **View 41** (Figure 8.9.41) Receptor 41, Users of the road between St John and the A374; glimpses through to the site are afforded from this field gate and clear views would be afforded to people working in the fields. The view is far reaching and in the far distance, dominated by built form as for View 40. These receptors are of **low** sensitivity.
- 8.4.110 **View 42** (Figure 8.9.42) Receptor 42, Users of Dartmoor National Park (south-west); facing towards the site from the footpath on Dartmoor, the site cannot be clearly deciphered. The site is approx 11km away. The site lies almost directly beyond the existing chimney of Derriford Hospital, which can be seen to the left of centre of the photograph. These receptors are of **high** sensitivity.
- 8.4.111 **View 43** (Figure 8.9. 43) Receptor 43, Users of Staddon Heights, Staddiscombe; facing towards the site, the view pans across the spectacular breadth of the Plymouth Sound, Plymouth and across eastern Cornwall. From this location the majority of dockyard buildings are concealed by intervening buildings and landform. Devonport Park is visible as a dark swathe to the centre of the photograph, the proposed development site cannot be deciphered, but lies in an approximately straight line beyond this. These receptors are of **medium** sensitivity.

Summary of Baseline Views

- 8.4.112 Close views of the existing site are degraded by a combination of open storage and large exposed surfaces within the site itself and industrial dockyard buildings (and associated activity) on the adjacent land. The site benefits from a relatively high degree of enclosure to the north resulting from the existing topography and the extensive woodland, combined with earth bunding and a woodland buffer along the railway line to the east, and MOD land and buildings to the south.
- 8.4.113 Views of the site from the areas of higher ground to the east, and more distant and more limited views from the south-west (across the Tamar) and south (from elevated sites within Plymouth) are also viewed in the context of the surrounding industrial landscape formed by the dockyard.

Future Baseline

- 8.4.114 In time, further encroachment of the maturing woodland and scrub within the northern and north-western parts of the site would be likely to result in the central area becoming more enclosed and less open, further restricting views into the site from these areas. Without intervention, the southern and eastern areas of the site would be encroached by scrub which dominates these boundaries.

8.4.115 The 'Table Top Mountain' adjacent to the site is expected to be retained for storage by the MOD. With no management, Blackies Wood could continue to deteriorate thus preventing maturation of many tree specimens which are already over-competing within the limited area available. Trespassing would be likely to continue (evidence currently observed includes arson, littering and vandalism).

8.5 Design Evolution and Incorporated Mitigation

Introduction

8.5.1 This section focuses upon those key features of the proposed development and mitigation measures, which will be implemented as part of the scheme, and which determine the predicted landscape and visual effects of the proposed development during construction and operation, at Year 1 and at Year 15.

8.5.2 Designs have been developed to avoid, minimise or mitigate adverse effects on landscape character and visual amenity through consideration of the following:

- design of massing and appearance of the building (form/colour/materials);
- landscape design, including new tree planting.
- site access;
- drainage;
- settlements and properties;
- existing features such as trees and woodland;
- visual amenity; and
- landscape character.

8.5.3 The scheme design, including the incorporation of mitigation measures, has been an iterative process involving dialogue and discussion with Plymouth City Council Officers and the project engineers, architect and ecologists from an early stage. It has been possible to influence the design of the scheme in a number of ways in order to reduce the potential impact of the development on landscape and views, as discussed below. The scheme evolution is set out in detail in ES Chapter 5 and in the Design and Access Statement.

8.5.4 New electricity cables will be laid underground. New gas and condensate pipes will only be visible above ground for a relatively short length in the vicinity of the proposed facility. Elsewhere the new gas and condensate pipes will be replacements of existing pipes so there would be no net difference in landscape and visual terms.

Site Preparatory Works

8.5.5 Site preparatory works include the removal of the clutter of construction materials and cabins, levelling of the site and clearance of areas of scrub using specialist contractors. Two trees also require removal – refer to Appendix 8.3 for details. All individual trees and tree groups not requiring removal will be protected in accordance with BS5837:2005 – Trees in Relation to

Construction. A Tree Protection Zone will be established within which no work can take place without the prior authorisation of a suitably qualified arboricultural consultant. The alignment of proposed protective fencing is shown in Appendix 8.3.

8.5.6 A Devon hedgebank and avenue planting are to be created on Savage Road at the outset of construction to allow the maximum period of establishment and growth in order to enable this vegetation to assist in reducing adverse effects on views where possible.

8.5.7 Landscape proposals and management works within Blackies Wood are also proposed to start concurrently with the main construction works. This will also allow maximum establishment and growth for the measures to enhance the woodland both from a landscape and visual perspective and also to benefit wildlife.

Built Form

8.5.8 Various aspects of the design of the scheme will reduce the potential impact of the development on landscape and views, including the following:

- distinctive external architectural detailing incorporated into the detailed design of the buildings. This includes the use of colour to break up the larger elevations, the use of non-reflective cladding, some areas of glazing and the exposed structural 'rib' columns;
- colours which are already prevalent within the dockyard setting have been selected; and
- the slender form of the chimney, its finished textures and recessive graduated tones are used to reduce the visual effect of the structure against the skyline.

Landscape Proposals

8.5.9 Landscape proposals for the site are referenced in detail in Chapter 6 and associated figures and appendices.

8.5.10 The overall objective of the early landscape works is to provide woodland enhancements and partial avenue screening to the north of the site through Blackies Wood to ensure that all existing trees are retained, except for the two which are known to need removal and also any dangerous trees or trees in poor condition (see Appendix 8.3). The mitigation proposals for the EfW CHP facility are designed to integrate the proposed development into its landscape setting, whilst at the same time minimising the adverse effects on landscape character and views (see Chapter 6 and associated figures and appendices). These measures include planting along Savage Road and enhancement to Blackies Wood. The scheme therefore aims to achieve the following:

- retain existing vegetation where possible;
- reinforce existing woody vegetation groups with additional tree and shrub planting;
- provide planting to enhance the local and distant views of the development;
- remove or make safe potentially dangerous trees;
- integrate and screen structures with enveloping woodland, tree and shrub planting;

- include a planted swale for surface run-off, a wildlife pond and hibernaculae designed to appear as natural features as much as possible with maximum habitat diversity;
 - provide partial screening for residential properties on Savage Road where appropriate and practical with planting and earthworks;
 - use a mix of locally characteristic plant material and ornamental planting, at appropriate locations, robust enough to tolerate the conditions of the site; and
 - ensure that landscape treatment is compatible with mitigation proposed by other specialists and combine benefits where possible (e.g. ecology, surface water drainage).
- 8.5.11 Site preparation comprises principally re-grading the open, central part of the site to allow a finished level of 9.0m AOD, the creation of two mounds at the edges of the main part of the site, and the formation of a pond up to 1m deep at the foot of Blackies Wood outside of the site security fence. This will be connected to the existing swale, which is to be extended to take the surface run-off in this area to the pond. The pond will be planted to filter the water, increase biodiversity and provide an attractive landscape feature.
- 8.5.12 The mounds will be contoured to assist in integrating the development into its surroundings. Areas of new woodland planting will be introduced within Blackies Wood, with some localised clearance of low-value scrub and trees. For more detailed information on the existing habitats, refer to the ecological reports appended to ES Chapter 7.
- 8.5.13 The extensive areas of woodland, existing and proposed trees, shrubs and grass are all to be managed to ensure their long-term survival and contribution to the locality as landscape features. Proposed new planting will strengthen existing woodland areas to compensate for losses caused by the proposed development. Proposed new planting will comprise chiefly locally indigenous species.
- 8.5.14 Large 'feature' trees are proposed in arboretum layouts upon the sculpted mounds, away from the building, to frame the structure from strategic approaches, such as from the south-east and the south-west, and to complement the scale and form.
- 8.5.15 Formal avenues are proposed along the entrance roads to create a human-scale landscape and an aesthetically pleasing entrance. Some formal shrub planting is proposed at the entrance to the building and to enhance the car park.
- 8.5.16 Mitigation planting on Savage Road is to take place simultaneously with the construction phase. Two different species are proposed to allow different growth rates for medium term and long term benefit. Planted alternately, London Planes (*Platanus x Hispanica*) at semi-mature size (5.5-6.0m height, 25-39cm girth) and Common Alder (*Alnus Glutinosa*) at extra heavy standards (4.0-4.5m height, 14-16cm girth).
- 8.5.17 An informal kick-about space will be provided on land adjacent to Savage Road, subject to MoD approval as landowner.
- 8.5.18 A roof terrace is proposed to bring softening to the roovescape of the building when viewed from elevated ground and to soften the elevation of the building upon arrival at the facility. This is located to also provide views of the Tamar estuary, the Dockyard and the Rame Peninsula for the users of the roof terrace.

- 8.5.19 A brown roof is proposed on the workshop building to provide foraging ground for birds including the black redstart which is known to be using the existing site for this purpose. This also visually enables this roofscape to merge into the surroundings when viewed from residential properties above. A second gravel rooftop is proposed as the art exhibition space within the roof terrace which will break up the roofscape of the main building also, as well as providing a spectacular space for workers and visitors.
- 8.5.20 The proposals include a commitment by MVV to clear out the adjacent Barne Brake Creek and nearby Weston Mill Stream of their existing debris to enable a clearer, cleaner flow of water to the Tamar. A wildlife viewing platform will be provided adjacent to Barne Brake Creek, subject to MoD approval as landowner. In addition to this the landscape proposals include clearing out an existing overgrown swale within the lower area of Blackies Wood and connecting it to a proposed freshwater pond, as discussed above.
- 8.5.21 The landscape proposals described above have been taken into account in determining the landscape and visual effects in the following section.

Lighting

- 8.5.22 All external access and circulation routes and handling areas of the EfW CHP facility will be lit to provide levels of lighting to allow safe operation of the facility during hours of darkness. However, during those hours the external activities associated with the site will be greatly reduced (e.g. waste deliveries will not take place throughout the night).
- 8.5.23 Architectural lighting is proposed to illuminate specific features of the structure between dusk and 23.00. This is installed only on the façades which are mainly visible from the south east, not from Barne Barton. This lighting shall be directional in order to shine onto the building façade and to avoid any light spill. This will not increase the visual impact assessed below as it is anticipated that the visibility in daylight will be greater than that at night, inclusive of the architectural lighting.
- 8.5.24 Architectural lighting is proposed to illuminate specific features of the structure between dusk and 23.00. This will be installed only on the façades which are mainly visible from the south east, not from Barne Barton. This lighting will be directional in order to shine onto the building façade and to minimise light spill. This will not increase the levels of visual impact assessed below as it is anticipated that the visibility in daylight will be greater than that at night, inclusive of the architectural lighting. This lighting has been proposed to highlight the strong architectural form and create a positive feature in preference to a dark shaded form. Colours were selected which reflect the scattered colours within the dockyard such as flags.

8.6 Assessment of Effects

Effects on Landscape Character

Introduction

- 8.6.1 This section assesses the likely effects of impacts on landscape character within the study area as shown on Figure 8.5.
- 8.6.2 Many impacts upon landscape character also have visual impacts and are assessed in both areas of this Chapter as necessary.

Effects of Construction on Landscape Character

- 8.6.3 The likely effects of construction on landscape character on the LCAs identified above are described in Table B2, Appendix 8.1.
- 8.6.4 In addition to construction activity, works will include the removal of scrub, earth mounds, fencing and roads.
- 8.6.5 The construction of the new facility will be a major operation taking place over approximately twenty seven months and resulting in a transformation of the character of the majority of the site. Only Blackies Wood will remain largely unaffected by the construction work.

Effects during construction: landscape character

- 8.6.6 The site preparation works and the construction of the EfW CHP facility would result in a number of landscape impacts including:
- site clearance operations, including the removal of two existing trees, scrub and existing earthworks;
 - removal of existing materials and debris from the site;
 - establishment of the temporary site compound on Table Top Mountain and temporary management offices;
 - stockpiling of materials on the site;
 - construction of temporary haulage roads across the site;
 - temporary working areas and tree protection fencing within the site;
 - excavation, removal and stockpiling of materials and soils;
 - construction of permanent earthworks and ponds;
 - under-ground and over-ground services installation;
 - temporary and permanent security fencing along site boundaries;
 - temporary and permanent traffic management signs and signals on local roads;
 - movement of heavy construction traffic, cranes and other vehicles;
 - temporary use of tower cranes in the main construction area;
 - mitigation planting and Devon hedgebanks along Savage Road;
 - re-profiling of public amenity space along Savage Road;
 - the transient form of the proposed building will create a diverse impact on the landscape character throughout this phase;
 - construction of the proposed buildings themselves would affect landscape character both directly and indirectly, as described below; and

- the construction works may have an impact on tranquillity through increased noise and traffic.

Summary effects on landscape character during construction

- 8.6.7 During construction there would be a temporary Major significant adverse direct effect on the Inland Rias LCA (2b). This is a temporary effect which is required to improve the LCA in the longer term.
- 8.6.8 All the other LCAs will experience Minor or Negligible effects.

Effects of Operation on Landscape Character: Year 1

- 8.6.9 The likely effects on landscape character upon completion of the EfW CHP facility development are described in Table B2, Appendix 8.1. The completed EfW CHP facility would introduce a number of new, large industrial buildings and structures into the landscape with associated roads, footpaths, security fencing and lighting. Planting carried out at the start of construction would have started to be established and measures within Blackies Wood and the waterways would begin to reap benefits. The planting scheme within the main site would not have matured sufficiently to provide structure at this time.

Effects at Year 1: landscape character

- 8.6.10 The operation of the proposed development would result in landscape effects as set out below:
- the character of this part of the area would be permanently altered;
 - removal of tall cranes and construction debris from site;
 - restoration of Table Top Mountain as a storage area for MOD;
 - reduction in clutter which would improve quality and structure of the landscape;
 - external lighting and light escaping from within the building during periods of operation;
 - reduction in construction noise: noise from traffic movements limited to south-eastern side of building (mainly);
 - introduction of ongoing management for Blackies Wood, Barne Brake and the public amenity space on Savage Road;
 - the completed EfW CHP facility would continue to indirectly influence the character of the areas close to the site in terms of a reduction of relative and perceived tranquillity; and
 - this would therefore also reduce the perception of openness of the site and adjacent LCAs.

Summary effects on landscape character at Year 1 of operation

- 8.6.11 The completion and operation of the proposed EfW CHP facility would result in a permanent change to the character of several parts of the site. Some of these effects would be beneficial such as bringing the wooded area of the site under management, clearing-up the existing degradation and improving the amenity value of the tidal stream and improvement to the public

amenity space. Some effects would be adverse, such as the replacement of the open character of the central area of the site with large buildings, plant and areas of hard-standing.

8.6.12 At year 1 there would be Major / Moderate significant beneficial direct effects on LCA 2b Inland Rias. The clearance of the watercourses will have a beneficial effect on the character of this LCA, leading to enriching the quality and characteristic features of this LCA.

8.6.13 All the other LCAs will experience Minor or Negligible effects.

Effects of Operation on Landscape Character: Year 15

8.6.14 The likely effects on landscape character at year 15 are described in Table B2, Appendix 8.1. Time would have enabled the new planting to have established and the management of the woodland would have enabled it to mature further and may therefore be more prominent within the greater landscape than at year 1, thus reducing the impact of the proposed building.

Effects at Year 15: landscape character

- the mature planting surrounding the buildings will have incorporated it into the surrounding landscape, which complements the surrounding MOD landscape;
- many surrounding LCAs are likely to have experienced further development;
- surrounding LCAs will have become more established. Blackies Wood should have matured through careful management and be more diverse and a greater feature in the landscape. The tidal estuary will have become more diverse through ongoing maintenance. Further potential development within the Dockyard;
- reduced impact on LCAs further away, due to immediate LCAs becoming more established, for example maturing woodland and growth of new planting will further reduce the impact on the character LCA 5a.

Summary effects on landscape character at Year 15 of operation

8.6.15 The LCA 1a of the surrounding Dockyard will have been reinforced by year 15 following assumed surrounding development. Similarly, the management of Blackies Wood would have led to this LCA being strengthened and enabled to regenerate. This is also true of the Tidal Estuary.

8.6.16 At year 15 there would be Major / Moderate significant beneficial direct effects on LCA 2b Inland Rias. The earlier clearance of the watercourses will continue to have a beneficial effect on the character of this LCA, leading to enriching the quality and characteristic features of this LCA.

8.6.17 All the other LCAs will experience Minor or Negligible effects.

Effects on Views

Introduction

8.6.18 This section assesses the likely effects of impacts on visual impact within the study area as shown on Figures 8.8.1 to 8.8.4.

8.6.19 Verifiable photomontages have been prepared to represent views at a variety of intervals, Year 1 of operation montages are used in the assessment of effects. Additional Year 5 and Year 15 montages are used to show the effects of maturing planting for specific receptors only. These

photomontage viewpoints are noted in the table below. They are shown with the viewpoints in the Figure set 8.9:

Table 8.4: Photomontage and Viewpoint Reference

View Number	Name
3a	Residents of Talbot Gardens, Barne Barton
3b	View from lounge window, No. 21 Talbot Gardens
4	Residents of Savage Road, Barne Barton (west)
4a	Mid point outside front of 1-12 Savage Road flats
4b	Mid point outside front of 13-18 Savage Road flats
4c	Mid point outside front of 19-30 Savage Road flats
4d	Residents of Savage Road, Barne Barton (east)
6	Residents of Cardinal Avenue
10a	Residents of Bridwell Road (East)
12	Residents of North Prospect Road (north)
14	Users of Camels Head Road Junction
17	Residents of Saltash Road (north)
21	Users of Alexandra Park
33	Users of Cove Head Jetty

Effects of Construction on Views

8.6.20 The likely effects of construction on views are described in Table C, Appendix 8.1. Initially views would be largely limited to receptors in close proximity to the site. Longer distance views would tend to be filtered or screened by intervening vegetation and topography. As the construction phase progressed views would become more wide-ranging due to the height of the proposed development, which would gradually become visible as construction progressed. Tower cranes would be the most prominent feature in longer distance views.

Summary effects of construction: views

8.6.21 The construction phase would result in one Major significant adverse effect at viewpoint 3 – residents of Talbot Gardens – due to the location of the construction compound in close proximity to them, on Table Top Mountain. These views would however be taken in context of the existing backdrop of the cranes and activity within the dockyard.

8.6.22 Construction would also result in one Major / Moderate adverse effect at viewpoint 6 – residents of Cardinal Avenue – due to the elevated views over the site and construction area. These views are widespread and therefore the development is a relatively small proportion of the panoramic views afforded to these receptors. The effect on this receptor is therefore not considered to be significant.

8.6.23 Construction would also result in eleven Moderate adverse effects at viewpoints 1, 2, 4, 8, 9, 11, 12, 16, 17, 18, 21 – residents of Poole Park Road, Furse Park, Savage Road, Hamoaze Avenue, Carlton Terrace, Church Way, North Prospect Road (north), Saltash Road (north), Wolseley Road (central and north), Royal Navy Avenue and Pemros Road respectively. Construction would also result in one further Moderate adverse effect at viewpoint 7 – train passengers. The effects on these receptors are not considered to be significant.

8.6.24 Of the remaining visual receptors, eight would experience Minor adverse effects and twenty-two would experience Negligible effects.

Effects of Operation on Views: Year 1

8.6.25 The completed EfW CHP facility would cause direct and indirect visual effects within the ZVI through the introduction of new buildings and structures and associated infrastructure and traffic movements. The likely effects on views upon completion of the EfW CHP facility development are demonstrated by reference to the following:

- Figure 8.8.1 – 8.8.4 – Primary and Secondary Zones of Visual Influence; and
- Figure set 8.9: photomontages of views

Summary effects of operation at Year 1: views

8.6.26 The operation of the EfW CHP facility at Year 1 would result in two Major significant adverse effects at viewpoints 4 and 6 – Savage Road and Cardinal Avenue respectively. Residents of Savage Road will be afforded views of the mitigation planting and hedgebank in the foreground which will offset some of the adverse effect of the completed building behind. At this stage (Year 1) this planting will not be mature and will therefore not create a screen but will filter the views experienced for this receptor, refer to Figure 8.9.4 for reference. Residents of Cardinal Avenue will experience more distant views of the completed facility and therefore their wider panoramic views will still be afforded albeit that these will now incorporate the completed facility.

8.6.27 The operation of the EfW CHP facility at Year 1 would result in four Major / Moderate adverse effects at viewpoints 3, 8, 9 and 16 – Talbot Gardens, Hamoaze Avenue, Carlton Terrace and Saltash Road (north) respectively – although these effects will not be significant, as explained below.

8.6.28 At Talbot Gardens, the predominant views will remain the long distant panoramas across the Tamar estuary and Rame Peninsula to the south and west; the EfW CHP facility will be viewed obliquely. Residents will experience the return of Table Top Mountain to its original use (storage by the MOD) therefore their visual effect will have improved from the construction phase. Operation of the proposed development would therefore cause a noticeable but not a significant deterioration in the existing view.

8.6.29 From rear upper storeys (only) of the dwellings at the northern end of Hamoaze Avenue, the roof of the proposed building will be visible above the intervening railway embankment and fencing. This should be taken in the context of the existing wide views which face onto the Dockyard and distant Cornish landscape. The limited number of properties that would see the EfW CHP facility would experience a noticeable deterioration but not a significant deterioration in the existing view. At the lower floors, and for properties at the southern end of this road, the views will remain unchanged of railings and the railway embankment in the immediate foreground.

8.6.30 The properties on Carlton Terrace are oriented at an oblique angle to the site. The upper elements of the building will be visible as one element of the vast built forms of the dockyard which dominate the panoramic views. This will lead to a moderate but not significant deterioration in the existing view.

8.6.31 Views for properties on Saltash Road (north) are in the context of the wider dockyard panorama. The horizon of Barne Barton will largely be replaced with the proposed development, although

the lower elements of the building will be set behind the existing dockyard buildings – there will be a noticeable but not significant deterioration in the existing view.

- 8.6.32 Operation would also result in twelve Moderate adverse effects at viewpoints 1, 2, 11, 12, 17, 18, 21, 25, 29, 30, 33 and 36 – residents of Poole Park Road, Furse Park, Church Way, North Prospect Road (north), Wolseley Road (north and central), Royal Navy Avenue, Pemros Road, Wearde Quay, Maryfield Village, Coombe Park and Wilcove, Torpoint and Devonport respectively. The EfW CHP facility at year 1 would also result in one further Moderate adverse effect at viewpoint 7 – train passengers. The effects on these receptors are not considered to be significant.
- 8.6.33 Of the remaining visual receptors, nine would experience Minor adverse effects and sixteen would experience Negligible effects.

Effects of Operation on Views: Year 15

- 8.6.34 The completed EfW CHP facility would cause differing visual effects to year 1 due to the establishment of mitigation planting and development of existing woodland features through ongoing management. The likely effects on views after 15 years of completion of the EfW CHP facility development are described in Table C, Appendix 8.1, and shown in photomontages in Figure set 8.9.

Summary effects of operation at Year 15: views

- 8.6.35 The operation of the EfW CHP facility works at Year 15 would result in effects of Major significance at one receptor, that being receptor 6 – residents of Cardinal Avenue. As for at year 1, mitigation planting will not lead to any reduction in the visual effect for this receptor. It is predicted, however, that other development within the dockyard will have incorporated the completed buildings into the industrial scale and architecture further than at Year 1.
- 8.6.36 The operation of the EfW CHP facility at Year 15 would result in five Major / Moderate adverse effects at viewpoints 3, 4, 8, 9, 16 – Talbot Gardens, Savage Road, Hamoaze Avenue, Carlton Terrace, Saltash Road (north) respectively – although these effects will not be significant, as explained below.
- 8.6.37 At Talbot Gardens, the predominant views will remain the long distant panoramas across the Tamar estuary and Rame Peninsula to the south and west; the EfW CHP facility will be viewed obliquely. Operation of the proposed development would therefore cause a noticeable but not a significant deterioration in the existing view.
- 8.6.38 At Savage Road, the proposed mitigation planting will by year 15 form a significant buffer to the views from properties. This will result in a reduction in distant panoramic views but allow greatly reduced views of the proposed development thus reducing the adverse effect. This is therefore categorised as a noticeable deterioration but not a significant deterioration compared with the existing view.
- 8.6.39 From rear upper storeys (only) of the dwellings at the northern end of Hamoaze Avenue, the roof of the proposed building will be visible above the intervening railway embankment and fencing. This should be taken in the context of the existing wide views which face onto the Dockyard and distant Cornish landscape. The limited number of properties that would see the EfW CHP facility would experience a noticeable deterioration but not a significant deterioration in the existing view.

At the lower floors, and for properties at the southern end of this road, the views will remain unchanged of railings and the railway embankment in the immediate foreground.

- 8.6.40 The properties on Carlton Terrace are oriented at an oblique angle to the site. The upper elements of the building will be visible as one element of the vast built forms of the dockyard which dominate the panoramic views. This will lead to a moderate but not significant deterioration in the existing view.
- 8.6.41 Views for properties on Saltash Road (north) are in the context of the wider dockyard panorama. The horizon of Barne Barton will largely be replaced with the proposed development, although the lower elements of the building will be set behind the existing dockyard buildings – there will be a noticeable but not significant deterioration in the existing view.
- 8.6.42 At Year 15 there would also be twelve Moderate adverse effects at 1, 2, 11, 12, 17, 18, 21, 25, 29, 30, 33, 36 – residents of Poole Park Road, Furse Park, Church Way, North Prospect Road (north), Wolseley Road, Royal Navy Avenue, Pemros road, Wearde Quay, Maryfield Village, Combe Park and Wilcove, Torpoint and Devonport respectively. The effects on these receptors are not considered to be significant.
- 8.6.43 Of the remaining visual receptors, ten would experience Minor adverse effects and sixteen would experience Negligible effects.

8.7 Vapour Plume

- 8.7.1 A plume will be visible when condensed water is present in the plume. The visibility of the plume from the main chimney of the proposed EfW CHP facility has been predicted using an advanced air quality dispersion model called ADMS 4.2. Full details can be found in Appendix 13.1. As noted earlier, a photomontage of the vapour plume has been produced in Figure 8.9.16.1.
- 8.7.2 The results from the model runs have been summarised in Table 8.5.

Table 8.5: Plume Visibility Assessment Results

Met Data Year	Percentage time plume is visible	Longest visible plume length (m)	Average visible plume length (m)
2005	16.3%	177.6	50.8
2006	12.7%	168.3	53.7
2007	13.1%	163.4	45.8
2008	13.7%	158.2	50.2
2009	14.6%	172.9	49.5

8.8 Recommended Mitigation Measures

Mitigation during Construction

8.8.1 A number of measures should be implemented during the construction phase in order to mitigate the effects on landscape and visual receptors including:

- The proposed Devon hedgebank and avenue planting are to be implemented at the earliest opportunity upon commencement of construction. This is to allow maximum time for establishment prior to completion and operation.
- Visual issues should be considered in deciding upon the need for lighting and its location and specification. Temporary lighting should use high-pressure sodium lamps with flat-glass lanterns and cut-off beams in order to minimise light spillage.
- Provision by the contractors of records of all pesticide / herbicide use.
- Provision by the landscape contractor of evidence that planting complies with provenance requirements as applicable.
- Weed control in general and actions taken to ensure that notifiable weeds in the area are destroyed and not spread.
- Handling of soils in accordance with British Standard (BS) 3822:2007 Topsoil; and locating, where possible, temporary materials storage mounds in areas that would mitigate views of the proposed development for adjacent receptors and without damaging the ecological resource.

Permanent Mitigation

8.8.2 Mitigation planting would have a positive impact on the character of LCA 7a, Dense urban development, reinforcing local features of Devon hedgebanks and treed avenues. This would be implemented during the early stages of construction and would continue to establish and mature during the construction process and once the development becomes operational.

8.8.3 An area of Blackies Wood in the central north is to be cleared of scrub and planted with a band of woodland planting which will reinforce street planting in visual screening.

8.8.4 Large 'landmark' trees would be beneficial along the south-eastern boundary of the air-cooled condensers as these would partially screen them and would integrate with the colouration on this built element. These could also be implemented upon completion of these condensers to allow earlier establishment, growth and impact.

8.8.5 The use of a grey colour palette and non-reflective finishings on the building will enable it to integrate into the Dockyard setting, with splashes of colour representing the similar features of flags, specific buildings, and machinery of brighter colours which are dotted throughout the Dockyard.

8.9 Summary and Conclusion

Design Evolution

- 8.9.1 At an early stage in the design evolution process it was established, in consultation with Plymouth City Council (PCC), that an EfW CHP building at Devonport of the scale proposed could not be hidden within the selected site and that an appropriate design response would be required to address the scale and particular location of the proposed building.
- 8.9.2 The engineering, architecture and environment teams embarked on a design evolution process, with the objective of delivering a design that responded to its surroundings and that was of a quality and elegance which would encourage public acceptance. The proposed design solution includes an acknowledgement of the impact of a building of this scale on certain local view points, through a high quality, distinctive and elegant design, which connects the neighbourhood to the history of the dockyard.
- 8.9.3 The assessment of impacts on views from a range of locations, including residential properties, public areas and businesses, demonstrates that there are likely to be a number of adverse impacts on views from certain residential properties in the Barne Barton and Weston Mill Area, which will be significant in EIA terms. However, the distinctive design of the building is such that the perception of the degree of these adverse effects on views is likely to be softened by a general public appreciation of the quality of the design and the important role played by the building in securing a sustainable future for the community.

Summary Effects on Landscape Character and Visual Amenity

- 8.9.4 The levels of predicted effects on landscape character and visual amenity of the development have been determined by its key features and the mitigation measures proposed. The architecture and landscape have evolved through an iterative process of assessment and design aimed at avoiding, minimising or mitigating adverse effects. Of particular importance is the design of the form, massing and materials, including texture and colour, of the built elements of the scheme.
- 8.9.5 In accordance with the described assessment methodology, effects assessed as significant in EIA terms, are those classified as either major, or moderate. A summary of the likely significant adverse effects on landscape character areas and visual receptors is set out below.

Landscape character: During construction, Years 1 and 15

- 8.9.6 During construction there will be temporary significant adverse effects on one LCA (2b, Inland Rias).
- 8.9.7 Upon completion of construction, the proposed development will result in no significant adverse effects on landscape character. There will be significant beneficial effects to LCA 2b.

Visual amenity: During construction

- 8.9.8 It is considered that the EfW CHP facility during construction will result in significant adverse effects on one residential visual receptors no. 3: Talbot Gardens. This is set in the context of existing Dockyard views but is considered significant.

Visual amenity: Year 1

- 8.9.9 It is considered that the operation of the EfW CHP facility at Year 1 will result in significant adverse effects on two residential visual receptors no. 4: Savage Road and no. 6: Cardinal Avenue. This is set in the context of immature mitigation planting and in the context of existing panoramic dockyard views respectively.

Visual amenity: Year 15

- 8.9.10 The operation of the EfW CHP facility will continue to result in significant adverse effects on the residential visual receptor no 6: Cardinal Avenue, however future development of the dockyards will lead to this being less significant than at Year 1.

Conclusion

- 8.9.11 In line with Government policy set out in PPS1, policies are included in PCC's LDF that seek to protect and enhance the environment. The PCC Core Strategy (adopted April 2007) sets out a number of strategic objectives and policies for development.
- 8.9.12 Since the assessment identifies some significant visual effects on nearby residential receptors, it is essential that the tall, built elements of the scheme take account of PCC's Core Strategy, Strategic Objective 2: Design. In accordance with that objective, the architectural design therefore has regard to key design principles in support of PCC's vision for a high quality city. It is particularly important, not only in terms of simply complying with policy, but also for the benefit of local residents and visitors to Plymouth, that the architecture of the built form should be of a very high quality. As a building which cannot be entirely absorbed into its setting, it has therefore had to be designed to be seen and to form a local landmark – a flagship feature even – and this is what the scheme as proposed will achieve. So, in line with the expectations of LDF Policy CS02: Design, the new development is well designed to respect the character, identity and context of Plymouth's historic townscape and landscape and in particular Plymouth's unique waterfront, its local settlement pattern and wider moorland setting and nearby Tamar AONB.
- 8.9.13 Although the building will result in changes to important local and longer-distance views due to its large scale, in accordance with CS02 it will also protect those views because of its striking design in terms of its form, massing, detailing, materials and colours. Also in line with CS02, in this way it will promote the image of the City, through enhancement of important gateway locations and key approach corridors, such as from the railway, and from the River Tamar. Overall, therefore, it will contribute positively to the area's identity and heritage in terms of scale, density, layout and access, as required by CS02 and additionally, at the local level, it will have public and private spaces that are safe, attractive, and accessible; and complement the built form.
- 8.9.14 The facility will inevitably have a strong presence due to its nature, scale and form, but the proposals aim to set it appropriately within its landscape context. The proposed design has evolved to be both modern and functional and, in accordance with LDF Strategic Objective 4, and Policy CS02, represents a world class EfW CHP facility to manage waste and produce electricity and heat representing a continuation of cutting-edge development in a dockyard that has been at the forefront of technological innovation for over two hundred years.
- 8.9.15 PCC's Green Space Strategy cites the residential area of Barne Barton as a priority neighbourhood for green space investment and recognises Blackies Wood as non-accessible green space. In accordance with Objectives GSS16: Access to Nature and GSS19: The

Educational Benefits of Green Space, and in conjunction with the proposed improvements to the public open space area of Barne Barton north-west of Blackies Wood, the proposals will enable coordinated and beneficial control of Blackies Wood so that it can be managed both for the benefit of local communities and educational groups, and also to enhance and protect the biodiversity of the site.

- 8.9.16 The proposals will substantially enhance Blackies Wood and the adjacent public open space along Savage Road, improving both the quality of the open space and the quantity of accessible space in a manner most beneficial to the local community, all in accordance with LDF Policy CS18: Plymouth's Green Space. Furthermore, the soft landscape proposals within the development area of the site will soften and assist in integrating the building into this sensitive setting comprising an unusual combination of potentially conflicting uses in the form of woodland, residential land and the industrial dockyard.
- 8.9.17 These elements are particularly important in relation to addressing LDF Policy CS34: Planning Application Considerations. The iterative process of assessment and design has enabled the evolution of a scheme which is both functional in terms of its industrial purpose and pleasing in terms of its aesthetic appearance. The combination of built form, new landscape and management of existing landscape features will ensure that the scheme positively contributes to the townscape, landscape and biodiversity of the local environment, in line with that Policy. The design has evolved to be modern but functional: the facility will have a strong presence due to its nature, scale and form, but it will be carefully set within the landscape, its location and form, informed by the existing landform and natural features of the site and its immediate surroundings.
- 8.9.18 It is therefore considered that such details are appropriate and sufficient to overcome the adverse visual effects classified by the EIA methodology as significant. Overall, despite its visual prominence from some locations, it is considered that the proposed scheme is in line with LDF Policy CS34, in that it is compatible with its surroundings in terms of style, siting, layout, orientation, visual impact, local context and views, scale, massing, height, density, materials.

8.10 References

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