

**LAND AT UPPER COSMESTON FARM,  
LAVERNOCK ROAD, PENARTH**

**ENVIRONMENTAL STATEMENT**

**VOLUME 2  
CHAPTER 7: LANDSCAPE AND VISUAL**



## **7.0 LANDSCAPE AND VISUAL**

### **INTRODUCTION**

- 7.1 This chapter of the ES has been produced by the Environmental Dimension Partnership Ltd (EDP) and informs an outline application upon land of Upper Cosmeston Farm, Lavernock Road, Penarth, for the development of: 576 residential dwellings (comprising a mix of market and affordable); a two form entry primary school; associated access off Lavernock Road; and public open space.
- 7.2 EDP is an independent environmental planning consultancy with offices in Cirencester, Shrewsbury, Cheltenham and Cardiff. The practice provides advice to private and public sector clients throughout the UK in the fields of landscape, ecology, archaeology, cultural heritage, arboriculture, rights of way and masterplanning. Details of the practice can be obtained at our website [www.edp-uk.co.uk](http://www.edp-uk.co.uk).
- 7.3 This chapter has been prepared with reference to the Technical Appendices and contributors, as set out below:
- Technical Appendix 7.1: Landscape and Visual Impact Assessment (LVIA) baseline assessment - EDP;
  - Technical Appendix 7.2: LVIA supporting figures - EDP;
  - Technical Appendix 7.3: LVIA Assessment of Effects - EDP;
  - Technical Appendix 7.4: Arboricultural Impact Assessment – EDP; and
  - Technical Appendix 7.5: Green Wedge Review – EDP.

### **ASSESSMENT METHODOLOGY**

#### **Relevant Guidance**

- 7.4 The assessment methodology for assessing landscape and visual effects prepared by EDP is principally based on the following best practice guidance, as set out in more detail in Technical Appendix 7.1 Annex EDP 2: Methodology.
- Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEMA, 2013);
  - LANDMAP methodology (updated in 2008);
  - Landscape Character Assessment – Guidance for England and Scotland (Swanick & LUC, 2002) produced on behalf of the Countryside Agency and Scottish Natural Heritage; and the updated version publication;
  - Photography and photomontage in landscape and visual impact assessment (Landscape Institute Advice Note 01/11); and

- BS5837:2012 Trees in Relation to Design, Demolition and Construction (BSI, 2012).
- 7.5 The nature of landscape and visual assessment requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is based on the best practice guidance listed above and information and data analysis techniques.
- 7.6 It uses subjective professional judgement and quantifiable factors wherever possible and is based on clearly defined terms (see Glossary of Terms, Annex EDP 3 of Technical Appendix 7.1).

#### **Baseline Data Collection**

- 7.7 The baseline report comprises a factual description of the landscape and visual amenity resource of the study area. It is based on a review of landscape character documentation (with on-site corroboration), anticipated changes within the landscape, a review of planning policies and designations, and a review of the visual amenity of the study area and general visibility of the site. This comprised both a desk-based analysis and on-site survey work and included Zone of Theoretical Visibility (ZTV) analysis to aid the understanding of the potential visibility of the Application Proposals.
- 7.8 The baseline report describes, classifies, and evaluates the baseline landscape and has been instrumental in the identification of the receptors and viewpoints to be included within the assessment. In addition, the baseline report also considers those schemes that are operational, consented, and in application in order to evaluate the potential cumulative effects resulting from the introduction of the Application Proposals to a baseline that currently exists or is likely to exist.
- 7.9 In compiling the baseline, EDP has undertaken the following key tasks:
- A review of the planning policy context for the Application Site;
  - A desktop study and web search of relevant background documents and maps. EDP's study included reviews of aerial photographs, web searches, Local Planning Authority (LPA) publications and landscape character assessments. EDP has also obtained, where possible, information about relevant landscape and other designations such as Areas of Outstanding Natural Beauty (AONB), gardens and parks included on Cadw's 'Register of Historic Parks and Gardens in Wales' (HPG), Tree Preservation Orders (TPOS), Scheduled Monuments (SM), Conservation Areas (CA), and Listed Buildings (LB); and
  - A field assessment of local site circumstances, undertaken on 10 and 17 December 2018, including a photographic survey of the character and fabric of the Application Site and its surroundings, using photography from a number of representative viewpoints, undertaken by a chartered landscape architect.
- 7.10 Further details of these key tasks is provided within the assessment methodology section below as they form an integral part of the assessment process.

#### **Assessment Methodology**

- 7.11 A general EIA methodology is presented in ES Chapter 2. Provided within this section is an abridged methodology for the LVIA. An unabridged version can be found at Annex EDP 2 of Technical Appendix 7.1, with terms clearly defined within the Glossary at Annex EDP 3.
- 7.12 A three-stage assessment process will be adopted for the LVIA in accordance with best practice as set out in the 'Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEEMA, 2013)' (GLVIA3) as relevant to EIA schemes, comprising: 1) Description of the existing landscape and visual context in which proposals will be assessed (set out at Technical Appendix 7.1 and summarised in this Chapter) and of the proposed development (reference to ES Chapter 5; 2) Prediction of the likely changes to the landscape and visual context resulting from the proposed development (set out at Technical Appendix 7.3); and 3) Assessment of the significance and nature (positive/beneficial or negative/adverse) of the effects resulting from the likely changes (set out at Technical Appendix 7.3 and summarised in this Chapter at Section 7.82 onward).
- 7.13 The likely effects of the proposed development on the landscape resource and visual amenity will be assessed through the combination of an assessment of a number of representative viewpoints and desk research and fieldwork, through which a more precise understanding of the study area can be gained.
- 7.14 In order to assess the likely effects, the assessment will draw on the baseline to identify receptors, which, for the Proposed Development may include, but not be limited to, those listed below.
- 7.15 Landscape receptors may include:
- Landscape designations on a national, regional or local level (where relevant);
  - The landscape fabric of the development site;
  - The 'host' landscape character area which contains the proposed development;
  - 'Non-host' landscape character areas surrounding the host character area and which have the potential to be affected by the Application Proposals (where relevant); and
  - Specific landscape features of value as identified through the ecology and arboriculture surveys.
- 7.16 Visual receptors may include:
- Users of National Cycle Routes and National Trails;
  - Users of local/regional cycle and walking routes;
  - Those using local rights of way – walkers, horse riders, cyclists;
  - Users of open spaces with public access;

- Settlements and private residences;
- People using major (A and B) roads;
- People using minor roads; and
- People using local railways.

7.17 The tables within Technical Appendix 7.1 Annex EDP 2 - Methodology, reproduced below for ease of reference, offer templates for assessing overall sensitivity of any landscape or visual receptor, and magnitude of change.

7.18 Assessment of the overall sensitivity of any landscape or visual receptor is determined by combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape or view as set out at paragraph 5.38 of GLVIA 3rd Edition (2013). However, the narrative in this report may demonstrate that assessment of overall sensitivity can change on a case-by-case basis. For example, a high susceptibility to change and a low value may result in a medium overall sensitivity, unless it can be demonstrated that the receptor is unusually susceptible or is in some particular way more valuable. A degree of professional judgement applies in arriving at the overall sensitivity for both landscape and visual receptors.

7.19 Table 7.1 below provides an indication of the criteria by which the overall sensitivity of a landscape receptor is judged within this assessment and considers both value and susceptibility independently.

Table 7.1: Landscape Sensitivity Criteria (see Technical Appendix 7.1 Annex EDP 2, Table EDP A2.1).

Category	Landscape Receptor Value Criteria	Landscape Susceptibility to Change Criteria
Very High	Nationally/internationally designated/valued countryside and landscape features; strong/distinctive landscape characteristics; absence of landscape detractors.	Strong/distinctive landscape elements/-aesthetic/perceptual aspects; absence of landscape detractors; landscape receptors in excellent condition. Landscapes with clear and widely recognised cultural value. Landscapes with a high level of tranquillity.
High	Locally designated/valued countryside (e.g. Areas of High Landscape Value, Regional Scenic Areas) and landscape features; many distinctive landscape characteristics; very few landscape detractors.	Many distinctive landscape elements/-aesthetic/perceptual aspects; very few landscape detractors; landscape receptors in good condition. The landscape has a low capacity for change as a result of potential changes to defining character.
Medium	Undesignated countryside and landscape features; some distinctive landscape characteristics; few landscape	Some distinctive landscape elements/-aesthetic/perceptual aspects; few landscape detractors; landscape receptors in fair condition. Landscape is

Category	Landscape Receptor Value Criteria	Landscape Susceptibility to Change Criteria
	detractors.	able to accommodate some change as a result.
Low	Undesignated countryside and landscape features; few distinctive landscape characteristics; presence of landscape detractors.	Few distinctive landscape elements/-aesthetic/perceptual aspects; presence of landscape detractors; landscape receptors in poor condition. Landscape is able to accommodate large amounts of change without changing these characteristics fundamentally.
Very Low	Undesignated countryside and landscape features; absence of distinctive landscape characteristics; despoiled/-degraded by the presence of many landscape detractors.	Absence of distinctive landscape elements/-aesthetic/perceptual aspects; presence of many landscape detractors; landscape receptors in very poor condition. As such landscape is able to accommodate considerable change.

7.20 For visual receptors, judgements of susceptibility and value are closely interlinked considerations. For example, the most valued views are those which people go and visit because of the available view – and it is at those viewpoints that their expectations will be highest and thus most susceptible to change.

7.21 Table 7.2 below provides an indication of the criteria by which the overall sensitivity of a visual receptor is judged within this assessment and considers both value and susceptibility together.

Table 7.2: Visual Receptor Sensitivity Criteria (see Technical Appendix 7.1 Annex EDP 2, Table EDP A2.2)

Category	Visual Receptor Criteria
Very High	<p>Designed view (which may be to or from a recognised heritage asset or other important viewpoint), or where views of the surroundings are an important contributor to the experience. Key promoted viewpoint e.g. interpretative signs. References in literature and art and/or guidebooks tourist maps. Protected view recognised in planning policy designation.</p> <p>Examples may include views from residential properties, especially from rooms normally occupied in waking or daylight hours; national PRoW e.g. National Trails and nationally designated countryside/landscape features with public access which people might visit purely to experience the view; and visitors to heritage assets of national importance.</p>
High	<p>View of clear value but may not be formally recognised e.g. framed view of high scenic value, or destination hill summits. It may also be inferred that the view is likely to have value e.g. to local residents.</p> <p>Examples may include views from recreational receptors where there is some appreciation of the landscape e.g. golf and fishing; local PRoW, access land and National Trust land, also panoramic viewpoints marked on maps; road</p>

Category	Visual Receptor Criteria
	routes promoted in tourist guides for their scenic value.
Medium	View is not promoted or recorded in any published sources and may be typical of the views experienced from a given receptor.  Examples may include people engaged in outdoor sport other than appreciation of the landscape e.g. football and rugby or road users on minor routes passing through rural or scenic areas.
Low	View of clearly lesser value than similar views experienced from nearby visual receptors that may be more accessible.  Examples may include road users on main road routes (motorways/A roads) and users of rail routes or people at their place of work (where the place of work may be in a sensitive location). Also views from commercial buildings where views of the surrounding landscape may have some limited importance.
Very Low	View affected by many landscape detractors and unlikely to be valued.  Examples may include people at their place of work, indoor recreational or leisure facilities or other locations where views of the wider landscape have little or no importance.

7.22 Table 7.3 below provides an indication of the criteria by which the size/scale of change at a landscape or visual receptor is judged within this assessment.

Table 7.3: Scale of Change Criteria (see Technical Appendix 7.1 Annex EDP 2, Table EDP A2.3)


Category	Landscape Receptor Criteria	Visual Receptor Criteria
Very High	Total loss of or major alteration to key elements/features/characteristics of the baseline condition. Addition of elements which strongly conflict with the key characteristics of the existing landscape.	There would be a substantial change to the baseline, with the proposed development creating a new focus and having a defining influence on the view.
High	Notable loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that are prominent and may conflict with the key characteristics of the existing landscape.	The proposed development will be clearly noticeable, and the view would be fundamentally altered by its presence.



Category	Landscape Receptor Criteria	Visual Receptor Criteria
Medium	Partial loss or alteration to one or more key elements/features/characteristics of the baseline condition. Addition of elements that may be evident but do not necessarily conflict with the key characteristics of the existing landscape.	The proposed development will form a new and recognisable element within the view which is likely to be recognised by the receptor.
Low	Minor loss or alteration to one or more key elements/features/characteristics of the baseline landscape. Addition of elements that may not be uncharacteristic within the existing landscape.	The proposed development will form a minor constituent of the view being partially visible or at sufficient distance to be a small component.
Very Low	Barely discernible loss or alteration to key elements/features/characteristics of the baseline landscape. Addition of elements not uncharacteristic within the existing landscape.	The proposed development will form a barely noticeable component of the view, and the view whilst slightly altered would be similar to the baseline situation.
Negligible	No appreciable change	No appreciable change

7.23 Table 7.4 below provides an indication of the criteria by which the geographical extent of the area affected is judged within this assessment.

Table 7.4: Geographical Extent Criteria (see Technical Appendix 7.1 Annex EDP 2, Table EDP A2.4)

	Landscape Receptors	Visual Receptor Criteria
Largest 	Large scale effects influencing several landscape types or character areas.	Direct views at close range with changes over a wide horizontal and vertical extent.
	Effects at the scale of the landscape type or character areas within which the proposal lies.	Direct or oblique views at close range with changes over a notable horizontal and/or vertical extent.
	Effects within the immediate landscape setting of the Application Site.	Direct or oblique views at medium range with a moderate horizontal and/or vertical extent of the view affected.
	Effects at the site level (within the Application Site itself).	Oblique views at medium or long range with a small horizontal/vertical extent of the view affected.

	Landscape Receptors	Visual Receptor Criteria
Smallest	Effects only experienced on parts of the Application Site at a very localised level.	Long range views with a negligible part of the view affected.

### **Significance of Effect**

- 7.24 The purpose of the EIA process is to identify the likely significant environmental effects (both beneficial and adverse) arising from Application Proposals.
- 7.25 In order to consider the likely level of any effect, the sensitivity of each receptor is combined with the predicted magnitude of change (as set out above), with reference also made to the geographical extent, duration and reversibility of the effect within the assessment. The level of effect can be derived by combining the sensitivity and magnitude in accordance with the matrix in Table 7.5.

Table 7.5: Level of Effects Matrix (see Technical Appendix 7.1 Annex EDP 2, Table EDP A2.5)

	Overall Magnitude of Change				
Overall Sensitivity	Very High	High	Medium	Low	Very Low
Very High	<b>Substantial</b>	<b>Major</b>	<b>Major/ Moderate</b>	<b>Moderate</b>	Moderate/ Minor
High	<b>Major</b>	<b>Major/ Moderate</b>	<b>Moderate</b>	Moderate/ Minor	Minor
Medium	<b>Major/ Moderate</b>	<b>Moderate</b>	Moderate/ Minor	Minor	Minor/ Negligible
Low	<b>Moderate</b>	Moderate/ Minor	Minor	Minor/ Negligible	Negligible
Very Low	Moderate/ Minor	Minor	Minor/ Negligible	Negligible	Negligible/ None

- 7.26 Each effect is described and evaluated individually through the integration of all of the relevant factors and assessed as either significant or not significant. For landscape and visual effects, those effects identified at a substantial, major, major/moderate or moderate level (emboldened in the table above) are generally considered to be significant and those effects assessed at a moderate/minor, minor, minor/negligible or negligible level are considered to be not significant.
- 7.27 In certain cases, where additional factors may arise, a further degree of professional judgement may be applied when determining the level of overall change. Where this occurs, further explanation is given.

- 7.28 Effects will be described and evaluated during construction, at Year 1 (completion of construction activities) and Year 15 (following maturation of the landscape proposals).

### **Impacts of Climate Change**

- 7.29 EIA regulations set out the requirement to consider the impacts of climate change as a result of proposals. At this outline proposal stage this ES chapter predominantly relates to the anticipated landscape character and visual amenity aspects of proposals and the location of proposed mitigation planting, rather than consideration of species specification. This level of detail is considered of more relevance to the subsequent reserved matters and detailed application for the proposal, however the climate benefits provided through the scheme have been briefly highlighted within the mitigation measures section below (paragraphs 7.79 – 7.81).

### **LEGISLATIVE AND PLANNING POLICY CONTEXT**

- 7.30 The EIA Process is set out in Chapter 2. With regard to Landscape and Visual matters the European Landscape Convention (ELC), to which the UK is a signatory, defines landscape thus:

*“Landscape is an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.”*

- 7.31 The GLVIA, para 2.4, reminds us that the importance of the ELC definition is that it *“...moves beyond the idea that landscape is only a matter of aesthetics and visual amenity”*. Landscape assessment requires that proposed changes are assessed holistically in terms of all dimensions of the landscape resource. Those other dimensions include whether the site has historical or cultural relevance, its habitats, its landscape fabric and its long term management. Frequently we find that loss of openness and change to visual character are counterbalanced by neutral or even positive impacts on other dimensions of the landscape resource; and

- 7.32 The GLVIA also states, in reference to the European Union Directive 2011/92/EU:

*“The Directive is clear that the emphasis is on the identification of likely significant environmental effects. This should embrace all types of effect and includes, for example, those that are positive/beneficial and negative/adverse, direct and indirect, and long and short term, as well as cumulative effects. Identifying significant effects stresses the need for an approach that is in proportion to the scale of the project that is being assessed and the nature of its likely effects. Judgement needs to be exercised at all stages in terms of the scale of investigation that is appropriate and proportional. This does not mean that effects should be ignored or their importance minimised but that the assessment should be tailored to the particular circumstances in each case.”*

- 7.33 This landscape and visual assessment has been prepared in accordance with best practice guidance, as set out in the ‘Guidelines for Landscape and Visual Impact Assessment – Third Edition (LI/IEEMA, 2013)’ which *“takes into account recognition of the European Landscape Convention by the United Kingdom government”* including

with regard to: definition of landscape; value of landscape; and the assessment of the effects of the development on landscape, as set out above. This assessment has, therefore, been prepared with regard to the European Landscape Convention in these regards.

### **Planning Policy and Guidance**

- 7.34 An appreciation of the 'weight' to be attributed to any landscape or visual effects arising from development starts with an understanding of the landscape designations and planning context within which any such development is to be tested for its acceptability.
- 7.35 EDP has conducted a data trawl of these relevant designations and considerations, the findings of which are set out at Technical Appendix 7.1, and the locations of which are illustrated on Plan EDP L3. A summary of these matters is included below.

### **National Planning Policy**

- 7.36 In terms of planning policy, a number of over-arching policies are of relevance not least of which are those described within Planning Policy Wales (PPW<sup>1</sup>), which sets out land use planning policies of the Welsh Assembly Government. The advice contained within PPW is supplemented for some subjects by Technical Advice Notes (TANs), with TAN 12 addressing Design (published in March 2016).
- 7.37 TAN 12 identifies a number of key objectives to support good design, which the Town and Country Planning system in Wales should incorporate. Those considered relevant are detailed below:
- *'Efficient use and protection of natural resources, and enhancing biodiversity;*
  - *Promoting sustainable means of travel;*
  - *Ensuring ease of access for all;*
  - *Sustaining or enhancing local character and promoting innovative design; and*
  - *Ensuring attractive and safe public space through natural surveillance.'*

### **Local Planning Policy**

#### *Vale of Glamorgan Local Development Plan 2011-2026 (June 2017)*

- 7.38 The Vale of Glamorgan Local Development Plan (LDP) was adopted on 28 June 2017. It is the most up to date Development Plan covering the authorities' administrative area and is used in the determination of planning applications. The LDP sets out a range of policies and proposals relating to future development and deals with the use and conservation of land and buildings, within the Vale up to 2016. A review of

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<sup>1</sup> Welsh Assembly Government, Planning Policy Wales, 10<sup>th</sup> Edition, December 2018

the LDP mapping illustrates policies affecting the site on an Interactive Adopted Proposals Map, an extract of which (showing the site) is provided as Figure EDP 1 of Technical Appendix 7.1.

7.39 A number of policies within the LDP have been identified within the technical baseline report included in Appendix 7.1 to be of relevance to landscape, and are listed below:

- Policy MG2 Housing Allocations - With the exception of a small section of the site around Lower Cosmeston Farm, the site forms Housing Allocation Site 24 'Land at Upper Cosmeston Farm, Lavernock'. The extent of the allocation is shown upon Plan EDP L3 of Technical Appendix 7.1;
- Policy MG18 Green Wedges – A small section of the site, and therefore proposals, falls within the South Penarth to Sully Green Wedge. Given that this designation is in place more so from a special perspective rather than for the purpose of protection of landscape character or visual amenity, this designation has been considered through a separate Green Wedge Review, provided as Technical Appendix 7.5. In summary the Review found that development of Lower Cosmeston Farm would not cause demonstrable harm in relation to the overall purposes of the Green Wedge. The site in turn offers clear boundaries, defined by physical features, which could be used as defensible boundaries to a future revision of the policy designation of Green Wedge; and
- Policy MD5 Development within settlement boundaries – in relation to design.

7.40 In summary, the planning policies affecting the site, as set out in Section 3 of the Technical Appendix 7.1, have the potential to constrain the development of the site in part, though predominantly in terms of design and detail. However, in respect of the 'in principle' issues, the draft allocation of the site for housing has to be seen to be a clear signal from the council as to the potential of the site and its overall acceptability in principle.

#### **Statutory and Non-statutory Designations**

7.41 There are no nationally designated landscapes (i.e. National Parks or Areas of Outstanding Natural Beauty) within or in close proximity to the site. Similarly, at county level, there are no other designations of relevance to a consideration of landscape and visual effects (such as conservation areas, registered parks and gardens, country parks etc.) within the site, however Cosmeston Lakes Country Park is located in close proximity to the site's western boundary, on the opposite side of Lavernock Road. This designated landscape is locally valued for recreational purposes and enjoyment of the landscape, however the country park possesses a contained character with visual connection to the surrounding landscape and settlement limited (despite its already close proximity, by boundary vegetation). The effects on this designated landscape is included in Technical Appendix 7.3, and summarised within this Chapter below.

7.42 There are no listed buildings, Scheduled monuments of Historic Parks and Gardens (which may contribute to the perceived character of the area) within or adjacent to the site boundary.

- 7.43 Public Rights of Way (PROW) are illustrated on the Ordnance Survey plan used as a basis for Plan EDP L3 of Technical Appendix 7.1. This demonstrates that there are no PROW passing within the site's boundary, however the promoted route of the Wales Coastal Footpath passes directly adjacent to the site's eastern boundary. A network of PROW routes crosses the 2km study area, however the site itself contributes little to this at present, either formally or informally. The anticipated visual effects on PROW receptors within the site's context is included in Technical Appendix 7.3, a summary of these effects is provided in this Chapter below.

## **BASELINE CONDITIONS**

### **Study Area and Context**

- 7.44 In order to establish the baseline and the potential limit of notable effects, a broad study area of 5km from the Application Site was adopted as the initial search area. This enabled the geographical scope of the assessment to be defined and provided the wider geographical context of the study. Within this area, the search focused on identifying the local planning policy context, national and local landscape designations and other relevant designations, and providing a general geographical understanding of the Application Site and its broader context (for example, in relation to landform, transport routes and the distribution and nature of settlement).
- 7.45 Following this initial analysis, and subsequent field work, and having an appreciation of the development proposed, the assessing landscape architect has used professional judgement to determine that, in order to focus on those areas and features that are likely to be affected by the Application Proposals, the study area need only extend to 2km from the Application Site boundary. However, occasional reference may be made to features beyond this area where appropriate. The study area is illustrated on Plan EDP L1 of Technical Appendix 7.1.
- 7.46 A number of field assessments of local site circumstances, including photographic survey of the character and visual context of the Application Site and its surroundings were undertaken in December 2018 in order to gather robust baseline information. Field assessments were undertaken in winter conditions and have, therefore, been undertaken, as far as is practicable, in accordance with best practice guidance which states that such assessments should be undertaken when the leaves are absent from the majority of trees/vegetation and visibility is at its greatest. This matter is addressed in more detail in Section 7.75 under the subtitle 'Representative Viewpoint Selection'.
- 7.47 These field based assessments were undertaken by a Chartered Landscape Architect, with appropriate experience of the relevant guidance.
- 7.48 Landscape and visual assessment is comprised of a study of two separate but inter-linked issues; landscape character and visual amenity. A detailed description of the landscape and visual baseline at and around the Application Site is set out in Technical Appendix 7.1, with a summary provided below.

### **Baseline Landscape Resources**

- 7.49 This section considers baseline landscape character matters and identifies other landscape resource receptors that are relevant to the assessment. The principal components of the local landscape character of the EIA site and local context are the settlement edge of Cosmeston, nearby recreational/leisure facilities and the rolling agricultural Lavernock Hinterland landscape, described within the published landscape character assessments discussed below.
- 7.50 Baseline conditions in respect of the published local landscape character assessments are summarised below, followed by a summary of EDP's own assessment of the character of the Application Site and local context.

#### *Local Landscape Character: LANDMAP*

- 7.51 Through consideration of the LANDMAP aspect areas, the site is situated within Geological Landscape, Landscape Habitat, Visual and Sensory, and Historic Landscape aspect areas of 'Moderate' evaluation, and Cultural Landscape aspect area of 'Low' evaluation. With the above evaluations in mind, and NRW's methodology associated with interpretation of LANDMAP evaluations, the aspect area evaluations and therefore overall landscape character of this area is considered to be of no more than local importance.
- 7.52 The overall character and qualities, characteristic features, and management strategy of these aspect areas and their relatability to the Application Site are noted in Technical Appendix 7.1.
- 7.53 Overall the landscape within which the Application Site is situated is considered to correlate well with that experienced through site examination, and the Application Site itself is seen to be in part representative of the visual and sensory aspect area; however, a number of detracting elements and minor inconsistencies are available, including:
- LANDMAP identifies the area's sense of enclosure to be 'open'; however, through site investigation it was considered that the enclosure varied between open and contained as a result of a combination of undulating topography and the presence of a number of strong tree belts and mature field boundary trees; and
  - The presence of recreational facilities, such as Glamorgan Golf Club and nearby holiday villages put pressure on the area, eroding its integrity and character.

#### *Vale of Glamorgan County Borough Council Designation of Landscape Character Areas*

- 7.54 The published landscape character assessment relevant to the EIA area is the 'Vale of Glamorgan County Borough Council Designation of Landscape Character Areas' (August 2008). The Application Site falls within, and towards the eastern extent of, Landscape Character Area (LCA) No. 24 – Sully Ridge/Cosmeston. The overall character and qualities and characteristic features of this LCA are noted in Technical Appendix 7.1, with the site and its local context demonstrating similarity with regard

to: its gently rising topography, the currently agricultural character of the landscape adjacent to existing settlement, visibility of the Bristol Channel (in part), the well maintained character of hedgerows (though predominantly related to those alongside road routes rather than within the site) and the presence of nearby facilities of recreational value.

- 7.55 Overall, the Application Site and its context are considered to be generally in keeping with this LCA description however, though relating quite closely to the findings of the above LANDMAP assessment, the characteristics identified are considered to be more overarching in comparison and less specific to the site area.

*EDP's Landscape Character Assessment*

- 7.56 Despite the general correlation with the published landscape character assessments considered above, it is felt that these assessments do not provide a suitably detailed description of the site itself and, as such, this has been carried out by EDP.
- 7.57 EDP conducted a desk based and field assessment of the Application Site's characteristics during which the individual elements of the Application Site were noted, as were the differences in the composition and the character of the Application Site's physical components to the published assessment, and their value and ability to accommodate change. The aerial photograph provided at Plan EDP L2 illustrates the character and features of the landscape across the Application Site and near context, with photos provided within Technical Appendix 7.1 to visually demonstrate the site's character.
- 7.58 The Application Site and its immediate context is gently undulating, with its higher ground broadly lying across the eastern clifftop at circa 25m above Ordnance Datum (aOD); however, elevated landscape to the south of the Application Site also influences its overall aspect. The low point of the Application Site is located at its western edge, within the extent of existing built form of Lower Cosmeston Farm, at 13m aOD. Overall, the aspect of the Application Site appears to be generally north-westerly across fields to the east of the disused railway line and westerly within fields to the west of the disused railway line. The disused railway is the only element of the Application Site which contrasts this, staying level along its course.
- 7.59 Field Parcel 3, and the wider field within which it is situated, historically formed part of an old quarry site which has since been infilled and repurposed for equestrian pasture grazing.
- 7.60 The Application Site does not contain any watercourses or waterbodies within its boundary. Within its local context however the Application Site is situated in close proximity to Cosmeston Lakes to the north-west, and the cliffs down to the Severn Estuary to the east.
- 7.61 The visual and sensory character varies across the Application Site and is linked, primarily, to the topography and division created by bisecting tree belts. The individual fields of the Application Site appear internally open; however, the Application Site overall possesses a contained visual character, despite its size and location upon the clifftop.



- 7.62 Intervisibility with the Severn Estuary/Bristol Channel and coastal landscape are limited, as a result of mature vegetation associated with the Wales Coastal Path at the site's eastern boundary, however glimpsed views towards Penarth and the waterfront are available from the site's easternmost field.
- 7.63 Most views from the site are characterised by agricultural land parcels, with the combination and layering of numerous tree belts within views giving a well wooded appearance to the area. However, the Application Site is influenced by the urban edge along its northern boundary, giving the majority of the Application Site a settlement edge character rather than one of open countryside.
- 7.64 The Application Site is located on the southern development edge of Cosmeston, made up of 8 fields divided by a mixture of mature hedgerows and tree belts. And used for both arable agriculture and equestrian grazing purposes. The Application Site is considered to contain a number of locally valuable landscape features in good condition from both a landscape and ecological perspective, notably the tree belt between parcels 1 and 2 and the disused railway and its associated vegetation belts. However, other hedgerows of the Application Site, due to limited management, have reduced in quality over time and become gappy – requiring improvement and reinforcement if retained.
- 7.65 The Application Site also contains existing built form comprising the buildings of Lower Cosmeston Farm, clustered together at the Application Site's south-western corner. These buildings include a two-storey residential farmhouse surrounded by tree planting, two large corrugated steel-clad agricultural barns, a steel circular storage area and a number of stone agricultural buildings currently used as stables and storage.
- 7.66 The Application Site is not identified to be of any cultural value in relation to being referenced in poetry, art or literature. Though the promoted walking route of the Wales Coastal Path passes adjacent to the Application Site's eastern boundary, which may be considered to give the site elevated value, the route is not identified for telling a cultural story of the area and is well divided from the Application Site's core by mature vegetation of the Application Site's eastern boundary. The settlement edge against which the Application Site is situated is of predominantly post 1950s redbrick character rather than forming any 'historic core' of Cosmeston.
- 7.67 Overall, while this is clearly a 'greenfield' site, it sits at the urban edge of Cosmeston and has a good visual relationship with some parts of the existing settlement and the buildings of Lower Cosmeston Farm, which both urbanise the site in part.
- 7.68 The availability of views from parts of the site creates an opportunity to integrate framed views and vistas within proposed development – increasing legibility and sense of place. High quality housing stock here could enhance the character of the local architectural stock and positive landscaping proposals could offer further biodiversity and diversity of landscape character.
- 7.69 With respect to the value of the site, in landscape terms, there is nothing to suggest that the site, or even elements of it are worthy of a high value. The site contains no footpaths or public access and Lavernock Road functions as a link from Cosmeston to Sully, with its rural character significantly degraded by the road width, regularity of

use, highways ancillaries and pedestrian walkway. Within the body of the site the agricultural fields are of a typical quality and character for the area with the only features worthy of particular note being the tree belts which dissect the site from north to south, though these are easily integrated into proposals coming forward.

7.70 Overall, it is considered that this is a landscape which has medium value under the terms of this assessment.

### **Baseline Visual Resources**

#### *Visibility to the Application Site*

7.71 Using landform data within a Geographical Information System (GIS), EDP has prepared a broad Zone of Theoretical Visibility (ZTV) using LiDAR 2m digital surface modelling (DSM) data. This data includes height data on landform and surface features and therefore accounts for the screening effects of intervening landform, buildings, structures and vegetation. The ZTV for the Application Site is presented at Plan EDP L4. The ZTV was then visited by walking and driving (as appropriate) local roads, rights of way and other publicly accessible viewpoints. Through this exercise the main visual receptors predicted to have actual visibility to the Allocation, and constituent areas, were identified and the Zone of Primary Visibility (ZPV) of the Application Site was established.

7.72 The visual appraisal identified that the gently undulating landform of the study area means that landform, settlement, structures and vegetation provide an effective containment of site visibility for the scale of development proposed. The visual appraisal, at Plan EDP L5 of Technical Appendix 7.1, illustrates the ZPV for the Application Site and its main determinants. It shows that visual containment is provided by:

- To the north and north-east – the existing settlement edge of Cosmeston, the Application Site’s undulating cliffside location and vegetation of the Wales Coastal Footpath along the Application Site’s eastern edge;
- To the north-west – the vegetation associated with the northern edge of the B4267 and south-western edge of Cosmeston Lakes Country Park;
- To the south-west - the well-maintained route-side hedgerow vegetation of Fort Road and the B4267 and intervening field boundary vegetation;
- To the south – the tree belt associated with the disused railway line, the gently undulating topography of both the Application Site interior and the intervening landscape between the southern edge of the Application Site and the southern coastline, and existing tree blocks/belts within the landscape to the south; and
- To the south-east – the northern orientation of the eastern fields of the Application Site, the woodland block at the Application Site’s south-eastern corner and intervening field boundary and route-side (Wales Coastal Footpath) vegetation.

- 7.73 As illustrated by Plan EDP L3, there is no formal public access on the Application Site however the Wales Coastal Footpath passes directly adjacent to the site's eastern boundary with a wider PRoW network identified to the north-west from Cosmeston Lakes Country Park. It is important to note that the experience of receptors on the Wales Coastal Footpath is a transitional one and that, at numerous points along its length, and particularly in the vicinity of the Application Site, it is characterised by passing through, or close to, existing built form and settlement areas. Users of the path in proximity to the Application Site will have either recently been through/around the built up areas of Penarth and Sully or will be heading towards them and as such their sensitivity to being in close proximity to built form is reduced.
- 7.74 The publicly accessible locations and routes within the ZPV are set out below under the sub-title 'Visual Receptors'.

*Representative Viewpoint Selection*

- 7.75 Based on fieldwork observations, and the findings of the data trawl, a number of representative viewpoints, or Photoviewpoints (PVP), have been selected, and agreed with Vale of Glamorgan Council (VoGC), the locations of which are shown on Plan EDP L5, while the views themselves are shown within Photoviewpoint (PVP) EDP 1 to 20 of Technical Appendix 7.1.
- 7.76 The GLVIA states a preference that the 'worst case' scenario is used for visual assessment. The actual visibility of a site is normally greater in winter (when trees and hedgerows have no leaves). On this basis the assessment was carried out on 10 and 17 December 2018 (with the exception of PVP EDP 20 which was taken on 14 May 2019), and so is compliant with this guidance.
- 7.77 Details of each view, and the reason for its selection as a 'representative viewpoint', are provided in Table 7.6 below.

Table EDP 7.6: Representative Viewpoints, or PVP, agreed with VoGC

PVP No.	Location	Grid Ref.	Distance and direction to Application Site	Visual Receptor(s)
1	Wales Coastal Footpath at the Application Site	318605, 169442	On Boundary; south-west	Users of Wales Coastal Path, and residents
2	Wales Coastal Footpath at the Application Site	318585, 169154	12m; north-west	Users of Wales Coastal Path
3	View from residential street of Shearwater Close	318379, 169360	14m; south	Residents
4	View from residential street of Upper Cosmeston Farm	318056, 169201	36m; east	Residents
5	B4267, at the Site's north-western corner	317969, 169150	On Boundary; south	Users of B-road (and pavement adjacent to the site)

PVP No.	Location	Grid Ref.	Distance and direction to Application Site	Visual Receptor(s)
6	Cosmeston Lakes Country Park Visitor Car Park	317926, 169205	73m; south-east	Users of visitor centre
7	B4267, at the existing access to Lower Cosmeston Farm	317870, 169019	14m; east	Users of B-road (and pavement adjacent to the site)
8	B4267, at junction with Fort Road and PRoW L1/3/1	317756, 168874	117m; east	Users of B-road (and pavement adjacent to the site), PRoW users
9	Looking north from Fort Road	317864, 168751	115m; north-east	Users of local road (no pavements)
10	Northern lakeside of Cosmeston Lakes Country Park	317545, 169317	448m; south-east	Users of Country Park
11	Bridge crossing the Lake within Cosmeston Lakes Country Park	317474, 169228	455m; east	Users of PRoW and Country Park
12	PRoW L1/4/1 to the west of the Application Site	317179, 168814	611m; east	Users of PRoW
13	PRoW S13/2/1, near Home Farm	316758, 168834	1.09km; east	Users of PRoW
14	B4267, approaching from Sully	317475, 168558	528m; north-east	Users of B road (pavement on one side)
15	PRoW L1/1/1, near Lavernock Holiday Village	318159, 168214	634m; north	Users of PRoW
16	Wales Coastal Footpath, near Lavernock	318689, 168373	523m; north-west	Users of Wales Coastal Path
17	Wales Coastal Footpath, near Craven Walk	318631, 169866	404m; south	Users of Wales Coastal Path
18	Wales Coastal Footpath, near Channel View and Cliff Top Recreation Ground	318644, 170247	790m; south	Users of Wales Coastal Path, recreation ground users
19	Lower Penarth Cemetery and Glamorganshire Golf Club	317960, 170048	795m; south-east	Cemetery and Golf Course Users
20	Penarth Pier	319087, 171292	1.89km; south	Pier and waterfront users

\* Distance is from the PVP to the Application Site boundary along the line of the view.

## *Visual Receptors*

7.78 As discussed above, the opportunity for views of the Application Site from publicly accessible locations is limited. However, users of the following locations and routes, and residents of the following properties, have been identified as potentially able to perceive a change because of the Application proposals that could result in a notable effect. These receptor locations are shown on Plan EDP L5 and described in more detail within Technical Appendix 7.1 and 7.3.

- PRow
  - Wales Coastal Path
  - PRow L1/3/1
  - PRow P1/14/2
  - PRow L1/4/1
  - PRow S13/2/1
- Transport Routes
  - Lavernock Road (B4267)
  - Fort Road
- Recreational Receptors; and
  - The Glamorganshire Golf Club
  - Lower Penarth Cemetery
  - Cosmeston Lakes Country Park and Visitor Centre
  - Clifftop Recreation Grounds
  - Penarth Pier and Waterfront.
- Residential Receptors
  - Properties directly to the north of the Application Site, along Whitcliffe Drive, Petrel Close, Cosmeston Drive and Shearwater Close;
  - Properties to the north of the Application Site along Fulmar Close, Raven Way and Osprey Close;
  - Properties directly to the north-west of the Application Site, along Upper Cosmeston Farm;
  - Properties within the small village of Lavernock, to the south-east.

## MITIGATION MEASURES

- 7.79 A hierarchical approach towards mitigation (avoid, prevent, reduce, offset) has been used to avoid, where possible, any effects through the overall design of the Application Proposals, the disposition of its elements (prevent), and, subsequently through careful siting of the different elements of the Application Proposals and its required infrastructure (reduce). Offset mitigation is not relevant to landscape and visual matters. This is because any landscape and visual effects, for example the character of the site or views to it, cannot be replaced by creation of the site character, or views, in another location unlike, for example, the loss of a hedgerow which can be offset by providing a new hedgerow.
- 7.80 Embedded mitigation provides a form of preventative mitigation and, as discussed above, is that which has been considered as an integral part of the overall design and locational strategy for the Application Proposals. It is not an 'add-on' measure to ameliorate significant environmental effects, but part of the positive and pro-active approach whereby mitigation has been assessed and considered at all stages of the project to prevent or reduce the occurrence of potentially significant environmental effects.
- 7.81 The landscape and visual sensitivities of the Application Site have influenced masterplanning through an iterative process. Thus, the Application Proposals incorporate a degree of integral (or embedded) mitigation designed to avoid or reduce potential landscape and visual effects. These measures are described within the Design and Access Statement (DAS) and illustrated by the Parameter Plans. They are also illustrated by the Proposed Masterplan, included at Technical Appendix 5.1. Primarily they include:
- Retention of the majority of the best quality vegetation which contributes to the character of the landscape and visual amenity of the site, and the landscape context. This primarily comprises Category B and C trees and field boundary hedges, notably those that are species rich. This is set out in more detail in Technical Appendix 7.4;
  - Retention and enhancement of existing features that contribute to landscape character, where possible;
  - Where hedgerow/vegetation belt removal is required to facilitate access, or within development parcels where disconnected hedges pose little interest or value in an urban context, replacement planting will be proposed to equal or outweigh the loss, and a management plan will ensure that the health of landscape features (both new and existing) on site is maintained in the longer term;
  - Additional mitigation tree planting (native and non-native) within street scenes and areas of Public Open Space (POS) to break up the overall impression of built form from the wider landscape and provide climate benefits in terms of street greening, air cleansing potential and urban cooling;

- The retained assets to be incorporated, primarily, within areas of multi-functional, linked, green infrastructure where they can be best enjoyed, protected, and enhanced through ongoing management, that could be secured at the reserved matters stage. The green infrastructure also incorporates SuDS features that could be designed for visual, recreational and wildlife amenity, and provides the opportunity for creation of destination and recreational routes within green corridors linking across, and beyond, the site. The green infrastructure will provide a valuable resource for wildlife and climate change resilience, as well as for visual and recreational amenity. This will also assist in the integration of the new settlement edge with the wider agricultural landscape to the south and the well treed landscape of Cosmeston Lakes Country Park to the west;
- Sensitive treatment of the Application Site boundaries where they abut existing development so as to minimise effects on perceived character and on the visual amenity of adjacent residents. This includes provision of a landscape buffer and new vegetation planting along the site's northern boundary and proposed development backing onto the rear of existing development along the southern edge of Upper Cosmeston Farm; and
- Increased connectivity, in the form of new public right of way routes across the site, and green corridors will enrich the user experience (encouraging the use of sustainable transport, such as travel on foot or bike) and the biodiversity value on the site and the surrounding area.

## **ASSESSMENT OF POTENTIAL IMPACTS**

- 7.82 This section identifies the likely (significant) environmental impacts and effects that might arise as a result of the Application Proposals set out within ES Chapter 5 and its associated appendices. Whilst details are provided in relation to most elements of the proposal through the accompanying Parameter Plans, as an outline planning application, a certain level of assumption is made with regard to the development's appearance. It is assumed that a high quality of design, in terms of new buildings and open spaces, will be implemented across the whole proposal, and assessment below is considered as such.
- 7.83 Residual effects are those that remain once the landscape mitigation measures have taken effect, and unless otherwise stated, all effects described within this assessment represent residual effects.

### **Potential Construction Impacts and Effects**

- 7.84 This section assesses effects of the Application Proposals during construction, up to completion. During construction the principal effects as a result of the proposal would be as a result of the transition of the site from an agricultural landscape to a predominantly urban development over a period of time, in an undesignated landscape, and prior to the maturation of mitigation planting. Activities that can potentially cause landscape and visual impacts include:

- Demolition of existing agricultural buildings within the site area;
- Clearance of vegetation within the construction zone, where appropriate;
- Earthworks and temporary storage of topsoil;
- Removal of unwanted waste from the site;
- Erection of site hoarding and fencing around vegetation (tree protection scheme);
- Erection of temporary structures within the main contractor's construction compound, plus materials stockpiling and lay-down areas;
- Potential lighting of the works (during winter corresponding to each build out phase of the scheme);
- Erection of scaffold structures;
- Movement of construction vehicles;
- Partially completed built form;
- Works associated with the implementation of the landscape scheme; and
- Removal of temporary construction facilities.

#### Construction Effects on Landscape Character

7.85 The effects of the Application Proposals on the following landscape receptors during the construction phase are assessed at Technical Appendix 7.3 Table 1:

- The Landscape Character and fabric of the Application Site Itself;
- The Landscape Character of the host LANDMAP aspect areas; and
- The Landscape Character of host LCA of the of VoGC Designation of Landscape Character Areas.

7.86 The results of the assessment at Technical Appendix 7.3 Table 1 are summarised in Table 7.7 below.

Table 7.7: Summary of Landscape Character Effects during Construction

Receptor	Construction Effect
Landscape Character and fabric of the Application Site Itself	Very high. Adverse. Major/ moderate and significant
Host LANDMAP aspect areas	Low. Adverse. Minor and not significant.



Receptor	Construction Effect
Host LCA of VoGC Designation of Landscape Character Areas	Low. Adverse. Minor and not significant.

- 7.87 The only significant effect during the construction phase is the effect on the landscape character of the site itself.
- 7.88 This level of effect is not surprising and would result from the direct changes necessary to convert any site from predominantly agricultural land to built urban form with some informal open green space. The existing key landscape elements across the site; notably the hedges and trees, would be predominantly retained and protected during construction. However, the conversion of these predominantly agricultural fields into a predominantly residential development will result in the loss of agricultural land and fundamentally alter the character of the site itself from an agricultural landscape, albeit at the settlement edge, to a residential development.
- 7.89 Clearly, in terms of land use of the Application Site itself; its character will fundamentally and irreversibly change should the Application Proposals be implemented. However, there are no factors in terms of the Application Site's biodiversity, arboricultural, heritage or archaeological value which preclude the change of use as a matter of principle. Consideration of the effects on these aspects of landscape character are addressed in detail in Chapter 8: Ecology, Report edp5187\_r003a Archaeology and Heritage Assessment and Technical Appendix 7.4: Arboricultural Assessment, and these chapters and reports should be consulted for more detailed assessment of the effects of the development on these Application Site features.
- 7.90 There would be **no significant effects** on the host LANDMAP aspect areas or the host LCA as a result of the construction phase due primarily to the limited area of the host landscape that the Application Site represents; the visual containment of the site and resultant low level of visibility to it from the wider LCA; and the fact that where the site is visible from this LCA it is generally seen in the context of the existing settlement edge of Cosmeston so reducing the scale of change.

#### Arboricultural Resource

- 7.91 During construction, trees to be retained would be protected in accordance with those measures outlined in Technical Appendix 7.4. As a result, whilst some trees, groups of trees and hedgerows would be lost as a result of the Application Proposals, no additional tree stock would be lost due to construction or site preparation practices, as set out in Technical Appendix 7.4.

#### Construction Effects on Visual Amenity

- 7.92 The effects of the Application Proposals on visual receptors during the construction phase are assessed at Technical Appendix 7.3 Table 2 and Table 3. The results of this assessment are summarised in Table 7.8 below

Table 7.8: Summary of Effects on Visual Receptors during Construction Phase

Receptor	Construction Effect
<b>Promoted Footpaths</b>	
Wales Coastal Footpath	Low, Adverse, Moderate and significant
<b>PRoW Routes</b>	
PRoW L1/3/1	Low, Adverse, Moderate/minor and not significant
PRoW P1/14/2	Low, Adverse, Moderate/minor and not significant
PRoW L1/4/1	Medium, Adverse, Moderate and significant
PRoW S13/2/1	Medium, Adverse, Moderate and significant
<b>Road Routes</b>	
B4267 (Lavernock Road)	High, Adverse, Moderate/minor and not significant
Fort Road	Medium, Adverse, Moderate/minor and not significant
<b>Recreational Receptors</b>	
The Glamorganshire Golf Course	Low, Adverse, Minor and not significant
Lower Penarth Cemetery	Very Low, Neutral, Negligible and not significant
Cosmeston Lakes Country Park and Visitor Centre	Medium, Adverse, Moderate/minor and not significant
Clifftop Recreation Ground	Low, Adverse, Minor and not significant
Penarth Pier and Waterfront	Low, Adverse, Minor and not significant
<b>Residential Receptors</b>	
Properties along Whitcliffe Drive, Petrel Close, Cosmeston Drive and Shearwater Close	High, Adverse, Major and significant
Properties along Fulmar Close, Raven Way and Osprey Close	Medium, Adverse, Major/moderate and significant
Properties along Upper Cosmeston Farm	High, Adverse, Major and significant
Properties within Lavernock	Low, Adverse, Moderate/minor and not significant

7.93 From the table above, it is deduced that the only receptors which will experience a significant effect during the construction phase are those using the Wales Coastal Footpath and in the residential dwellings located directly adjacent to the northern and north-western edge of the site.

#### *Promoted Footpaths*

7.94 There are predicted to be **significant effects** on the Wales Coastal Footpath as a result of the construction phase. Given the value of the route and its proximity to the site, this is not surprising. Given the presence of existing vegetation boundaries (to be protected through the construction process) impacts will predominantly be of an audible nature, particularly for receptors passing directly alongside the site's eastern boundary. Heavily filtered views of moving construction vehicles may also be perceived through this vegetation however, especially when passing in close proximity.

- 7.95 In terms of wider views of the site from the Wales Coastal footpath, recognition of the construction phase would be limited to that occurring within the easternmost field parcel, particularly when using tall construction vehicles. Views and influence would be limited to only a small extent of the overall promoted route (circa 2km of the overall 176km route). Views towards the site from both the north and south of the site are all influenced in some part by existing built form, be it foreground influence when approaching from the north or distant views towards Penarth when approaching from the south, however with regard to visual impacts of construction it will predominantly be limited to the recognisable addition of movement into the otherwise static views. It is anticipated that, though significant and adverse, these impacts will be temporary in timescale.

#### *Public Rights of Way Routes*

- 7.96 As seen within Table 7.8, there are anticipated to be **significant effects** upon the local PRow routes of PRow L1/4/1 and S13/2/1 only, as a result of the construction phase of the Application Proposals. The limited extent of significant effect upon this receptor group is primarily due to the visual containment of the Application Site, the area's gently undulating character which restricts availability of views and the existing visual presence of the settlement edge of Cosmeston and the buildings of Lower Cosmeston Farm. Where visibility between these routes and construction activity within the site occur, the site is only ever seen in part and never as a whole, therefore impacts would appear temporary and short term compared to the overall construction phase.

#### *Road Routes*

- 7.97 **No significant effects** are identified with regard to the nearby road routes of Fort Road or B4267 (Lavernock Road) during the construction phase, despite their close proximity to the site's boundary or their use as the key point of access in the case of the latter. This is likely due to the existing experience of settlement edge within available views from local road routes, the effect that Lower Cosmeston Farm already has on receptors and the existing impression of approaching. Whilst receptors using surrounding road routes (notably Lavernock Road) will experience an increase in construction traffic, the route is already a busy well-used connection between the settlements of Cosmeston and Sully, and is already used by large vehicles such as buses.

#### *Recreational Receptors*

- 7.98 **No significant effects** are identified during the construction phase for recreational receptors within the site's context as a result of the Application Site's visual containment, the undulating landscape within which it is situated and the existing presence of vegetation belts both within the site and also containing views towards the site from the receptors. The existing built form of Cosmeston also limits the extent of visibility available when considering views from recreational receptors to the north (Clifftop Recreation Ground and Penarth Pier), whilst from the west and north-west (where visibility is available) the existing built form of Cosmeston and Lower Cosmeston Farm provides a backdrop and existing influence to views from receptors within the Country Park and Golf Course. Some construction traffic

movement may be experienced as a result of proposals but the extent of existing screening of the site would notably filter the resulting impact.

#### *Residential Receptors*

7.99 The effects of the Application Proposals on residents during the construction phase are assessed at Technical Appendix 7.3 Table 3. There are predicted to be **significant effects** on the following residential receptors:

- Properties along Whitcliffe Drive, Petrel Close, Cosmeston Drive and Shearwater Close;
- Properties along Fulmar Close, Raven Way and Osprey Close; and
- Properties along Upper Cosmeston Farm.

7.100 Receptors predicted to experience a significant effect are located directly adjacent to the Application Site boundary. It is notable that receptors beyond would not experience significant change. This is due primarily to the screening effect of development and vegetation.

7.101 The greatest of the effects during construction (i.e. the movement and activity of construction vehicles and operations) would be short term in duration, and local. These effects would be short-term on the basis that in any one location the construction would be apparent (in the worst case, i.e. close range) for less than 5 years (on the basis the construction activities would be phased).

#### **Potential Operational Impacts and Effects**

7.102 This section assesses effects of the Application Proposals at year 1 and year 15. At year 1 the principal effects as a result of the proposal will be as a result of the transition of the Application Site from an agricultural landscape to a predominantly urban development, in an undesignated landscape, and prior to the maturation of mitigation planting.

7.103 In practical terms, the 'operational lifetime' of the Application Proposals is measured in decades. Given that the Application Proposals include landscape proposals which will take time to mature, and that all new development can seem 'raw' until it has 'settled' into its landscape context, the assessment of operational effects is also undertaken at year 15.

7.104 At year 15 any mitigation planting will have matured to an extent that remaining significant effects are considered to be residual albeit that these effects may diminish further with time and as vegetation continues to mature. At year 15 the principal effects as a result of the proposal will be as a result of the transition of the site from an agricultural landscape to a predominantly urban scene, in an undesignated landscape, and after some maturation of mitigation planting.

#### **Landscape Character Effects (years 1 and 15)**

7.105 The effects of the Application Proposals on the following landscape receptors at years 1 and 15 are assessed at Technical Appendix 7.3 Table 1. The results of this assessment are summarised in Table 7.9 below.

Table 7.9: Summary of Landscape Character Effects at Years 1 and 15

Receptor	Year 1 Effect	Year 15 Effect
Landscape Character and fabric of the Application Site Itself	Major/ moderate	Major/ moderate
Host LANDMAP aspect areas	Moderate/ minor	Minor
Host LCA of VoGC Designation of Landscape Character Areas	Moderate/Minor	Minor

7.106 At years 1 and 15, as for the construction phase, the only significant effect on the landscape resource is the effect on the landscape character of the Application Site itself. There will be no significant effects on the host LCA or LANDMAP aspect areas due primarily to the small proportion of the host landscapes that the site represents; the visual containment of the site and resultant low level of visibility to it from the LCA and aspect areas; and the fact that where the site is visible it is generally seen in the context of the existing settlement edge so reducing the sensitivity and scale of change of receptors.

7.107 It is often the case that initial (year 1) effects will be more considerable than those at year 15 due to the limited initial effect of the strategic landscaping proposals incorporated into the Application Proposals during the design process. By year 15 substantial growth should have occurred and these features should be fulfilling their roles more effectively. Furthermore, enhanced mitigation should be achieved in future years as trees, in particular, reach mature size. As a general rule of thumb, one can expect vegetation growth of around 300mm per annum in the early years of establishment, realising upwards of 3-4m of growth after 15 years. This justifies the reduction in effect assessed for the wider host landscape character area.

7.108 Invariably, a mixed-use development on a 'greenfield' site, and at the scale proposed, will result in the unavoidable loss of open farmland and necessary removal of some characteristic landscape features, in particular some hedgerows and/or hedgerow trees in order to create access into the site, or to allow for development of built form and infrastructure, at a level which has the potential to materially alter the character of the receiving environment.

7.109 However, in the case of this Application Site, a number of existing landscape features will be affected by the Application Proposals, including: loss of the western site boundary hedgerow to facilitate access; removal of internal vegetation dividing the easternmost field parcels, removal of vegetation either side of the current track inside the site and creation of a break through the existing onsite tree belts to allow vehicular permeability through the site. Indeed, given the size of the site, the potential exists to balance lost trees and vegetation with replacement planting, although at year 1 these would not have achieved their full potential value.

*Arboricultural Resource*

- 7.110 Based solely on the Proposed Masterplan the Application Proposals would result in the loss of 22 items and partial loss of 10 items, from a surveyed total of 48 items (comprising trees, tree groups and hedgerows categorised as B-C). This loss or partial loss would include 11 category B items and 21 category C items. 16 of the surveyed items will be unaffected by the Application Proposals.
- 7.111 The loss is based upon the Proposed Masterplan which has been prepared in consultation with EDP consultants to ensure that as many trees, groups of trees and hedgerows as possible are retained for their value as Landscape and Arboricultural features. This represents the worst-case scenario for tree, tree group and hedgerow loss, and takes a precautionary approach in this respect.
- 7.112 The Proposed Masterplan (Technical Appendix 5.1) shows how the loss of trees could be substantially compensated through the provision of new planting of younger trees, that could be secured through condition, with potential for greater longevity within the landscape. The new trees would improve the species and age diversity of the tree stock, whilst also enhancing the setting of the new development within the landscape.

Visual Effects: (years 1 and 15)

- 7.113 The effects of the Application Proposals on visual receptors, at years 1 and 15, are assessed at Technical Appendix 7.3 Table 2 and 3, supported by 10 photomontaged viewpoints (within Technical Appendix 7.2) created to represent visibility of the scheme from a range of receptors as a block model (showing no vegetation mitigation other than that currently present). The results of this assessment are summarised in Table 7.10 below.

Table 7.10: Summary of Effects on Visual Receptors at Years 1 and 15

Receptor	Year 1 Effect	Year 15 Effect
<b>Promoted Footpaths</b>		
Wales Coastal Footpath	Major/moderate	Moderate/minor
<b>PRoW Routes</b>		
PRoW L1/3/1	Moderate/minor	Moderate/minor
PRoW P1/14/2	Moderate	Moderate/minor
PRoW L1/4/1	Major/Moderate	Major/Moderate
PRoW S13/2/1	Major/Moderate	Major/Moderate
<b>Road Routes</b>		
B4267 (Lavernock Road)	Moderate/minor	Minor
Fort Road	Moderate/minor	Minor
<b>Recreational Receptors</b>		
The Glamorganshire Golf Course	Moderate/minor	Moderate/minor

Receptor	Year 1 Effect	Year 15 Effect
Lower Penarth Cemetery	Negligible	Negligible
Cosmeston Lakes Country Park and Visitor Centre	Moderate	Moderate/minor
Clifftop Recreation Ground	Minor	Minor/negligible
Penarth Pier and Waterfront	Moderate/minor	Moderate/Minor
<b>Residential Receptors</b>		
Properties along Whitcliffe Drive, Petrel Close, Cosmeston Drive and Shearwater Close	Major	Major/moderate
Properties along Fulmar Close, Raven Way and Osprey Close	Major/moderate	Moderate
Properties along Upper Cosmeston Farm	Major	Major/moderate
Properties within Lavernock	Minor	Minor

7.114 The only receptors which will experience a significant effect during the occupation phase are:

- Wales Coastal Footpath, Cosmeston Lakes Country Park and PRoW P1/14/2 at Year 1 only; and,
- Residential receptors directly to the north and north-west of the site's boundary and PRoW L1/4/1 and S13/2/1 at both year 1 and year 15.

#### *Promoted Footpaths*

7.115 Year 1 will see the greatest impact upon the promoted route of the Wales Coastal Footpath, given the new appearance and recognition within views. As the route passes alongside the site's eastern boundary, new properties will be partially glimpsed and recognised beyond existing vegetation of the route, however receptors will continue to experience a feeling of separation from built form as a result of retained route-side vegetation – the only exception to this being a small section of the route alongside the site's north-eastern corner, where a small section of route-side vegetation is to be removed to allow access and a vista along a corridor of greenspace within the proposals. The proximity, and therefore level, of impact will be reduced as receptors move north and south along the route. Approaching from the north, development will be seen as a small extension to the existing foreground settlement, however when approaching from the south development will be seen as a new feature within the mid-ground of views (though limited to the site's south-eastern-most properties as a result of the site's undulating topography).

7.116 By year 15 mitigation planting along the site's eastern and south-eastern boundary will have had sufficient time to mature, increasing the density and filtering effect of existing vegetation alongside the site's eastern boundary and providing softening of new properties visible at the site's southern extent. With the weathering of materials

also, this will aid the assimilation of development into the landscape and as time passes footpath users will become accustomed with the development's presence within available views, reducing the overall perceived level of effect to moderate/minor, adverse and not significant.

#### *Public Rights of Way Routes*

- 7.117 At year 1 significant effects are identified to occur for receptors travelling along PRoW P1/14/2, however PRoW L1/4/1 and S13/2/1 are expected to experience continued significant effect into Year 15 also.
- 7.118 For PRoW P1/14/2 (as with the Wales Coastal Footpath) this significant effect will be limited to Year 1 only, when the new development and materials will appear most 'raw' and fresh within the extent of the Application Site. For PRoW L1/4/1 and S13/2/1 however this significant effect will continue to be experienced at Year 15 despite the addition of mitigation measures. For these routes, visibility of new development and the significance it causes is unavoidable when adding a development of this scale into a currently rural view, with only scattered existing development influences. Photomontage EDP 12 demonstrates how the proposed development would sit within the current landscape when viewed from PRoW L1/4/1.
- 7.119 Over time (by Year 15) buildings materials would weather and mitigation planting within the site would mature, allowing their canopies to break up the overall perception of built form. Despite this the development would continue to be a visible and recognisable addition to the views from PRoW L1/4/1 and S13/2/1, particularly in relation to development associated with the high point of the site including the community hub and properties within the south-eastern field parcel of the site. Development would continue to change the character of long-distance elements within views from these receptors, from rural and well treed to noticeable development extension. Where visibility continues high quality detailed design of properties will be key to ensure that proposals appear appropriate and acceptable within the view.

#### *Road Routes*

- 7.120 As with the construction phase, there are deemed to be no significant effects on the road routes of B4267 (Lavernock Road) or Fort Road as a result of the Application Proposals at years 1 and 15. Despite the B4267 passing directly adjacent to the site's eastern boundary and forming the main point of access into the scheme, the magnitude of change as a result of the addition of proposals is considered to be no greater than high, being a recognisable new feature and extension to Cosmeston when travelling along the route, but extending no further than the existing presence of Lower Cosmeston Farm within the view. With this in mind, and the proposal for an open space fronting the site along this road route to set back proposed dwellings, the proposal continues to contribute towards the current landscape transition experienced along this route between settlement and the agricultural landscape to the south. When approaching from Sully to the south, the feeling of approach to Cosmeston, and the location along the route at which this is first experienced, will not differ from that at present through the use of existing built form of Lower Cosmeston Farm (though changed in use and appearance to a school) as a definitive



boundary. Ultimately over time, as mitigation planting along the site's southern edge matures the proposal will provide a softer and more sensitive appearance to the settlement edge than is currently experienced when travelling along the B4267 towards Cosmeston from Sully or along Fort Road within a taller vehicle.

#### *Recreational Receptors*

- 7.121 There are no significant effects on recreational receptors within the context of the site as a result of the Application Proposals at years 1 and 15. This is predominantly as a result of these receptors being sufficient distance away from the scheme, influenced by existing built form of Cosmeston and screened from intervisibility by interior vegetation that they would experience the proposals only in part, and that the addition of proposals would not appear out of character compared to the baseline condition.

#### *Residential Receptors*

- 7.122 Receptors predicted to experience a significant effect are located directly adjacent to the Application Site's northern and north-western boundaries - it is notable that receptors beyond would not experience significant change. As at the construction phase, this is due primarily to the screening effect of existing development, vegetation at the Site boundary and vegetation across the site context, which increases in cumulative density with distance.
- 7.123 Despite the above effects, the parameter plans and the illustrative masterplan show a design which respects the privacy and visual amenity of existing private residences along the northern and north-western boundary of the Application Site by the incorporation of a vegetative buffer along the northern boundary, generous separation distances created by road frontages and sensitive building heights, achieving a balance between development density and minimising impacts on neighbouring residential areas. Proposal seeks to ensure appropriate offsets and buffers are provided such that amenity is maintained for those most likely to be affected.
- 7.124 In terms of temporal effects, it is unsurprising that significant effects are predicted to continue into year 15 for receptors located directly adjacent to the site's northern boundary. While mitigation planting will have matured and will soften the Application Proposals and assist in its integration to some degree, it is not intended to screen the development, and the change from agricultural land to housing will still be apparent. However, thanks to its sensitive design the Application Proposals will become increasingly integrated with, and accepted as a part of, a new settlement edge to Cosmeston which is softer in appearance compared to that currently present.

## **EFFECTS ON LANDSCAPE DESIGNATIONS**

### **Cosmeston Lakes Country Park**

### Construction

- 7.125 It is expected that impacts resulting from the construction process would be related to the increase in audible presence, with the visibility of works will likely be limited to the presence and movement of tall construction vehicles, though heavily filtered by the Country Park's mature boundary vegetation which provides it with its existing feeling of containment from the wider landscape. Overall a medium magnitude of change is expected during the construction phase, resulting in an overall moderate-minor, adverse and not significant level of effect.

### Years 1 to 15

- 7.126 Development would not change the character of the country park notably. Rooflines of existing development are already seen beyond vegetation. Proposals at Year 1 would extend this presence horizontally within the view, however it would appear to extend no further than the existing presence of Lower Cosmeston Farm within views and scale would be similar to that already experienced to the east. The Country Park will continue to feel contained from the wider landscape to the east and south-east as a result of its boundary and interior vegetation, which will not be impacted as a result of the proposed development. As such no more than a medium magnitude of change is expected, resulting in no more than a moderate-minor adverse, level of change which is considered to be not significant. This level of change will be further reduced as the proposal matures into its setting over time. At Year 15 mitigation tree planting within development streetscapes and within the western boundary public open space will have had sufficient time to mature; their canopies adding to the filtering effects of the country park's boundary vegetation and breaking up the overall scale and perception of new built form blocks. Once materials have weathered and matured over time it is expected that proposals will be no more visible than those existing within the adjacent development of Upper Cosmeston Farm. With this in mind, level of change at year 15 will reduce to minor, adverse and not significant.

### **RESIDUAL IMPACTS**

- 7.127 Residual effects are those that remain once the landscape mitigation measures have taken effect, and unless otherwise stated, all effects described within this assessment represent residual effects.
- 7.128 However, during operation, at year 1, effects are likely to be higher than at year 15 when any mitigation planting will have matured to some degree, albeit these effects are likely to diminish further with time and as vegetation continues to mature. At construction and completion, the principal effects resulting from the Application Proposals will be as a result of the transition of the Application Site from an agricultural landscape to a predominantly urban scene, in an undesignated landscape, and before maturation of mitigation planting.
- 7.129 However, it should be noted that it has never been the intention to screen the Application Site with planting; but instead the aim has been to soften and filter views to the Application Proposals and ensure that they integrate with their urban and rural context. Consequentially it will inevitably be apparent that this currently

agricultural landscape has been changed to a residential development, particularly for those receptors within close proximity.

- 7.130 The residual impacts of the scheme are described and assessed in Technical Appendix 7.3. In summary, the anticipated effects at Year 15 of operation are residual. The site will be seen from a number of locations despite mitigation planting and the management of existing planting, however, over time (after 15 Years as assessed) the proposed development will become generally accepted as part of the landscape, with only the residential properties directly to the north continuing to experience significant effect as a result of proposals.
- 7.131 The development of this site appears to be a logical extension to Cosmeston which considered in the geographical sense - due to the topography and containment of the site - the effects of the proposal would be felt by a surprisingly limited number of visual receptors over a limited surrounding extent. In terms of landscape character, the urban fringe of Cosmeston will appear more sensitively designed than the current appearance of housing in existence along the site's northern edge.
- 7.132 To summarise, residual significant effects would apply to the following receptors at year 15 of the operational phase, as detailed in the assessment tables at Technical Appendix 7.3:
- Residential properties located directly adjacent to and overlooking the site's northern boundary (associated with Whitcliffe Drive, Petrel Close, Cosmeston Drive, Shearwater Close, Fulmar Close, Raven Way, Osprey Way and Upper Cosmeston Farm); and
  - Landscape Character and fabric of the Application Site itself – an unavoidable consequence when developing any greenfield site to provide built form.

## **SUMMARY**

- 7.133 The proposed development on Upper Cosmeston Farm will have some significant adverse effects, even at 15 Years of operation, as the proposal is a large scale mixed use development on what is now 'greenfield' agricultural land. The site is adjacent to existing settlement edge of Cosmeston. The landform of the site is undulating which, alongside existing vegetation belts to be retained within the site proposals, reduces and breaks up the overall visual appearance and effects of the development proposed, despite its size. This LVIA has demonstrated that in respect of the 'in principle' issues, the site is acceptable in landscape character and visual amenity terms and the allocation of the site for housing has to be seen to be a clear signal from the council as to the potential of the site and its overall acceptability in principle.
- 7.134 This Chapter has sought to determine a number of fundamental points two of which are; whether the proposals seek to conserve, enhance or improve the baseline scenario; and whether the proposed development is considered acceptable in landscape and visual terms. As well as a review of policy, the character of the site was evaluated and potential visual receptors which are likely to experience views of the proposed development were identified.

- 7.135 Having considered the above, EDP's position, in respect of the landscape and visual sensitivity and capacity of the Application Site, is that it has the capacity for the development type and form shown on the parameter plans and illustrated by the illustrative masterplan. Furthermore, any potential effects of the Application Proposals would be substantially limited over time by the mitigation measures incorporated within the masterplan.
- 7.136 The effects that the Application Proposals would have on the landscape character of the Application Site and context, and on views towards the Application Site from publicly accessible locations beyond the site boundaries are limited in extent and should not be an obstacle to its development.
- 7.137 Overall, and even with what are deemed to be 'significant' effects in EIA terms, EDP concludes that there are few highly sensitive receptors (such as the Wales Coastal Footpath, Cosmeston Lakes Country Park and Penarth Pier) or receptors of higher experience (such as those travelling past the site along Lavernock Road) that would be affected significantly by the proposal in the long term. Receptors likely to experience residual impacts beyond year 15 are: the landscape character of the site itself, an unavoidable impact when converting a greenfield site to built form; located on the edges of existing residential properties directly adjacent to the site's northern boundary; and upon views from localised PRow L1/4/1 and S13/2/1. All other significant impacts identified at Year 1 are anticipated to reduce successfully over time through appropriate material and design choices and the maturation of mitigation planting, being not significant by Year 15. Furthermore, it is apparent from the proposals that the site would benefit significantly from the scheme proposed in a number of ways; not least through the improvements to green infrastructure, which would encourage biodiversity, strengthen character features where retained and improve both pedestrian and ecological connectivity.