

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

ENVIRONMENTAL STATEMENT

**VOLUME 2
CHAPTER 3: CUMULATIVE IMPACTS**

3.0 CUMULATIVE IMPACTS

INTRODUCTION

- 3.1 This chapter looks at the potential cumulative impacts associated with the proposed development. The cumulative impact assessment presented in this chapter has been informed by the technical information presented within the chapters of this Environmental Statement (ES) and information regarding other planned developments in the area and any relevant developments for which planning permission has been approved by the Local Planning Authority.

LEGISLATIVE AND PLANNING POLICY CONTEXT

- 3.2 The EC Directive has been transcribed in to UK legislation in the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (“the EIA Regulations 2017”), Schedule 4, paragraph 5, which states:

The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long term, permanent and temporary, positive and negative effects of the development.

- 3.3 Schedule 4 of The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 emphasise the need for the consideration of the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;
- 3.4 There is no legislative assessment process for reviewing cumulative impacts and the methodology used in relation to this ES has been devised uniquely to react to the impact and possible cumulative impacts of the proposed development.
- 3.5 In the above context reference is made to Local Development Plan procedures which have sought to establish that the proposed housing land allocation at Upper Cosmeston Farm, Lavernock (MG2 – 24) meets the required tests of soundness.
- 3.6 The adopted Vale of Glamorgan Local Development Plan has been subject to procedures under the Sustainability Appraisal / Strategic Environmental Assessment Regulations (SA/SEA) which has assessed cumulative impacts of all the proposed allocations, including the Cosmeston Farm site (*The Strategic Environmental Assessment (SEA) Directive (2001/42/EC – CEC 2001) requires information to be provided on certain plans and programmes (including LDPs) on cumulative and synergistic impacts*).
- 3.7 The above is confirmed in the Final Sustainability Report, published by the Council in June 2017. This updates the Council’s Sustainability Appraisal (SA) of the Deposit Plan (September 2015), to take into account the SA of Proposed Matters Arising Changes (September 2016) , and the SA of Final Matters Arising Changes (February 2017). It is stated in Paragraph 7.1.2 that:

‘The SEA Regulations and the LDP Manual (Edition 2) require that a sustainability appraisal should include an evaluation of the significance of the predicted effects including “the probability, duration, frequency and reversibility... [and] secondary, cumulative and synergistic effects” which was undertaken as part of the Sustainability Appraisal Report (2013) and which has been updated and reflected on in this report. From the updated

appraisal of policies it is clear that the LDP would deliver significant social and economic benefits through the provision of housing to meet the identified needs over the plan period, including much needed affordable housing. Alongside this the plan seeks to provide for a range of local employment opportunities and to enhance the prosperity of the wider South East Wales region through the identification of strategically important employment sites. The LDP also seeks to ensure the necessary infrastructure is provided to support the planned growth, including improved accessibility through sustainable transport provision.'

- 3.8 The application site has therefore been duly assessed as part of the Plan Strategy. With regard to the cumulative effects of the Plan, the Sustainability Appraisal Report (2015) concluded that the overall outcome for the Policy Framework is significantly positive in terms of impacts, when assessed against individual SA objectives and when considering overall policy impacts, with high proportions of positive effects. The assessment concludes that the policy framework will realise positive environmental benefits that will contribute towards meeting the SA/SEA Objectives. Whilst the SA process did identify a smaller proportion of negative results, the Sustainability Appraisal Report concluded that the appraisal process had met the aim of minimising negative results.
- 3.9 With regard to the changes arising from the Examination, the LDP Inspector in his report stated that *"I am satisfied that these changes are in line with the substance of the overall Plan and its policies, and that they do not undermine the Sustainability Appraisal (SA) and the other participatory processes that have been undertaken"* (Inspector's report, paragraph 1.5). The Inspector goes on to state that *"Changes arising from the examination process have also been subject to SA/SEA. I am satisfied that the SA/SEA process undertaken is robust and that it satisfies both the procedural and legal requirements"* (Inspector's Report, Paragraph 2.3).
- 3.10 The Final Sustainability Report concludes in Paragraph 7.1.10 that:
- 'Therefore, in addition to informing decision making, the iterative Sustainability Appraisal of the Vale of Glamorgan LDP has considered the cumulative effects of the Plan and, though the consideration of available mitigation, has assisted in the development of a suite of LDP policies that seeks to mitigate potential adverse effects, the result of which is a more sustainable plan. The on-going monitoring of the LDP will consider the environmental, social and economic impacts of the Plan and will consider the progress in achieving the sustainability objectives through the implementation of the Plan.'*

ASSESSMENT METHODOLOGY

- 3.11 Notwithstanding the above, which has considered the whole of the Plan area, this exercise has considered the potential cumulative impacts of the proposed development of the application site along with other developments in the area. To provide an overview, the assessment methodology used in relation to this scheme was:
- Identification of Impact Area – South East Zone;
 - Identification of base date – June 2017, date of adoption of the LDP;
 - Identification of relevant developments in the local area that required review (see below);
 - Information sharing within the technical team and topic specific methodology identified in terms of the potential cumulative impacts;
 - The cumulative impacts were then considered separately in each topic chapter; and
 - Summary and conclusions of cumulative impacts both separately and in combination is included in this chapter.

- 3.12 The area of impact in terms of cumulative impacts is focused on the Vale of Glamorgan – ‘South East Zone’. This is described in the LDP Strategy as follows:

‘Where appropriate, the LDP Strategy will seek to promote new development opportunities in the ‘South East Zone’. For the purposes of the LDP, the South East Zone includes the urban settlements of Barry, Dinas Powys, Llandough (Penarth), Penarth and Sully. The South East Zone accommodates the majority of the Vale of Glamorgan’s population and benefits from a wide range of services and facilities including a choice of transport links to Cardiff, Bridgend and the wider region. The LDP Strategy seeks to maximise these benefits to facilitate sustainable development and attract new inward investment in these areas.’

- 3.13 The zone in question is shown by the white hatched area on the LDP Preferred Strategy Key Diagram extract below.



IDENTIFICATION OF SITES

Larger Sites

- 3.14 Allocated sites of over 100 dwellings in the SE Zone are as follows:
- MG 2 (1) – Phase 2 Barry Waterfront (1,700 dwellings)**
 - MG 2 (11) – Land West of Pencoedre Lane, Barry (137 dwellings)**
 - MG 2 (24) – Land at Upper Cosmeston Farm, Lavernock (576 dwellings)** - This corresponds with the Application Site
 - MG2 (27) – Land adjacent to Oak Court, Penarth (145 dwellings)**
 - MG2 (28) – Land at St Cyres School, Dinas Powys (300 dwellings)**
 - MG2 (32) – Land South of Llandough Hill/Penarth Road (130 dwellings)**
 - MG2 (34) – Llandough Landings (120 dwellings)**
 - MG2 (37) – Land W of Swanbridge Road, Sully (500 dwellings)**

The current development status on each of the above is discussed as follows:

- MG 2 (1) – Phase 2 Barry Waterfront (1,700 dwellings)**
- 3.15 The site is also identified as a strategic, mixed use dockland development under LDP Policy MG3. It was previously an allocation in the Unitary Development Plan. Recent developments, involving Barratt, Taylor Wimpey and Persimmon, have focussed on the South Quay area with 314 dwellings completed and a further 88 under construction as at April 2019. A total of 351 dwellings remain on the ongoing phases of development with 441 dwellings remaining to be developed on Phase 2 Barry Waterfront (LDP Allocation) as it is described in the 2019 Joint Housing Land Availability Study (JHLAS).
- MG 2 (11) – Land West of Pencoedre Lane, Barry (137 dwellings)**
- 3.16 The site is in local authority ownership and lies between previous TW development, east of Pencoedre Lane, and a school site. The site was introduced as an allocation through Matters Arising Changes and to date, no planning application has been submitted. The 2019 Joint Housing Land Availability Study anticipates a start on site in 2023.
- MG2 (27) – Land adjacent to Oak Court, Penarth (145 dwellings)**
- 3.17 Local authority site. No planning applications to date. Start not anticipated until 2023.
- MG2 (28) – Land at St Cyres School, Dinas Powys (300 dwellings)**
- 3.18 Including a former school site and grounds, a hybrid planning application, comprising a full planning application for 215 units, submitted by BDW South Wales (2017/01136/HYB), was approved in February 2018. The development is now ongoing with 2 completions and 7 dwellings under construction on 1st April 2019.
- MG2 (32) – Land S of Llandough Hill/Penarth Road (130 dwellings)**
- 3.19 60 dwellings are included in the 2019 5 year land supply. Some interest shown but constraints, including access and topography, likely to reduce site capacity.
- MG2 (34) – Llandough Landings (120 dwellings)**
- 3.20 Former railway sidings adjacent to River Ely. Longstanding allocation but 50 dwellings are included in current 5 year land supply.
- MG2 (37) – Land W of Swanbridge Road, Sully (500 dwellings)**
- 3.21 Current reserved matters planning application by Taylor Wimpey for 325 dwellings on the northern part of the allocation (2019/00111/RES). Outline was previously granted on 12th May 2016 (2013/01279/OUT). Start anticipated 2021. 200 dwellings forecast to be completed in 5 years.
- 3.22 A number of smaller scale developments within the surrounding area may be relevant and could potentially have cumulative effects. The EIA Regulations 2017 state that when considering cumulative effects regard must be had to *“the cumulation with other existing development and/or approved development.”* Consequently, allocations in the South East Zone in the LDP have been assessed cumulatively for completeness, along with other ‘windfall’ sites. These are detailed within Table 3.1 below:

Table 3.1: Proposed Residential Land Allocations that could potentially have a cumulative Impact together with the proposed Development.

<u>LDP Site Ref /Windfall</u>	<u>Location</u>	<u>Number of Units</u>	<u>Status</u>
Windfall site	Haydock House, Holton Road, Barry	15	Housing Association Site - start anticipated 2020.
Windfall	Barry Dock Conservative Club, Station Street	21	Housing Association site – 21 under construction – April 2019
Windfall	Site of former Adult Training Centre, Woodlands Road, Barry	30	Completed by Newydd HA since base date.
Windfall	Woodlands Road, Barry	27	Development by Hendre – 27 under construction
MG2 (15)	Holm View, Barry	50	Housing Association site – start anticipated 2021
Windfall	Land at Cogan Hill, Penarth	40	Jehu scheme – looking for a HA partner. Start anticipated 2023.
MG2 (14)	Court Road Depot, Barry	50	Still in use as Council Depot. No units included in 5 year supply.
Windfall	RAFA Club, Porthkerry Road	13	Site completed since base date.
MG2 (8)	Barry Island Pleasure Park	25	Due to continued leisure use – no units in 5 year supply.
Windfall	United Reformed Church, Barry	22	22 units under construction – April 2019
MG2 (29)	Caerleon Road, Dinas Powys	70	Kier - 29 dwellings under construction April 2019.
MG2 (31)	Cross Common Road, Dinas Powys	50	RM approved Jan 2018 – Edenstone Homes, 36 units under construction April 2019.
Windfall	Bryneithin Home for the Elderly, Dinas Powys	24	Not included in 5 year supply
MG2 (33)	Land North of Leckwith Road, Llandough	21	Current full planning application for 40 dwellings – Jehu/Hafod
MG2 (25)	Land adjacent to St Joseph’s School, Sully Road, Penarth (Manor Park)	74	Completed since base date - David Wilson Homes.
MG2 (26)	Headlands School, St Augustine’s Road, Penarth	65	Listed building issues – no units in 5 year supply
Windfall	The Highlands, Old Barry Road, Penarth	11	8 under construction April 2019
Windfall	Northcliffe Lodge, Penarth	30	9 under construction April 2019

MG2 (16)	Hayes Wood, The Bendoricks, Barry	55	Start not anticipated until 2022
Windfall	Former St Pauls Church Hall, Arcot Street, Penarth	14	RSL - 14 under construction – April 2019.
Windfall	Provincial House, Kendrick Road, Barry	32	32 under construction April 2019
Windfall	Land at Subway Road, Barry	72	Start anticipated 2021
Windfall	Former RS Garage, Windsor Road, Penarth	12	12 under construction April 2019
Windfall	Sea View Labour Club, Dock View Road, Barry	28	Newydd HA (2019/01061/FUL) – Granted 19.12.19
Windfall	Castle Hotel, Barry	14	Newydd HA (2019/01062/FUL) – Granted 19.12.19
Windfall	The Windsor, 166-170, Holton Road, Barry	18	Newydd HA (2019/01060/FUL) – Granted 19.12.19
Windfall	Land at Hayes Road, Barry	23	Pegasus (2019/00603/FUL) – Granted 19.12.19
Windfall	56a, Windsor Road, Penarth (Former Monty Smith Ltd)	21	X Stream Properties Ltd (2018/01420/FUL) – Granted 26.09.19. 4 storey flats.
Windfall	St. Pauls Church and Hall, St. Pauls Avenue, Barry	31	Hale Construction and Hafod (2018/01383/FUL) – Granted 1.08.2019

- 3.23 It can be seen from the above Table that a large proportion of the smaller allocations and windfall sites involve previously developed land within the existing urban boundaries of Barry and Penarth. Therefore, many are sites which are largely contained by the existing urban form.
- 3.24 Sites in the Llandough area and to the north of Penarth are unlikely to contribute to any direct cumulative impacts on the application site in terms of landscape and transportation.
- 3.25 In the earlier version of the Deposit LDP, published in 2012, large sites were proposed to be allocated to the north-west of Barry, to the north and south of the Weycock Cross roundabout. These were subsequently removed due to political concerns over impacts on local infrastructure and the erosion of the green wedge between Barry and Rhoose. It can thus be argued that sites were previously removed from the Vale LDP process as a result of a perceived unacceptable cumulative impact in the South East Wales zone.
- 3.26 The 500 dwellings to the West of Swanbridge Road, Sully is the closest to the application site. The site has been consented and as part of the application was assessed from a transport perspective. The TA for the site accepted that the traffic from the development would be dispersed with traffic spread across a number of routes that would go through

Barry, Penarth and Sully. The LPA accepted that this scheme would not exacerbate the current highway situation and was considered to be acceptable in terms of highway impacts.

TOPIC BASED ASSESSMENT

- 3.27 The most significant topic areas of likely cumulative impact are Landscape and Visual; Ecology; Traffic and Transport and Air Quality. It is not considered that any cumulative impacts will arise in terms of Ground Conditions, as set out in those specific chapters. Under the headings below the predicted, cumulative impacts are discussed with reference to the associated Chapter Headings.

Landscape and Visual

- 3.28 In terms of landscape and visual impact there were no developments in close proximity that were considered to result in a cumulative effect from a landscape and visual perspective.

Ecology

- 3.29 In terms of ecology there are no developments in close proximity that were considered to result in a cumulative effect. However those sites in relative proximity to the site with an ecological designation were reviewed in terms of cumulative impact and it was concluded that there was no significant adverse effects.

Traffic and Transport

- 3.30 From a Traffic and Transport perspective the proposed development at Upper Cosmeston Farm has considered committed or proposed developments. As a result the TA has been modelled on a worst case scenario basis with the site at Swanbridge Road also known as Cog Road wholly included within the modelling.
- 3.31 Capacity analysis indicates that there are no major issues on capacity identified on the majority of the junctions and that the local highway network can accommodate a residential development comprising 576 dwellings and a primary school. The analysis also indicates that the operation of the Lavernock Road/Dinas Road/Victoria Road signalised junction could be improved to the benefit of existing road users.
- 3.32 Overall, it is considered that with the introduction of the proposed mitigation measures, the impacts will be reduced at both construction and operational phases. No major adverse impacts will remain and it is therefore considered that the proposed development will not represent a significant effect on the environment from a traffic, transport and movement standpoint.

Air Quality

- 3.33 Chapter 11 (Air Quality) confirms that a search of the UK Pollutant Release and Transfer Register (Defra, 2019a) has not identified any significant industrial or waste management sources that are likely to affect the proposed development, in terms of air quality. It can be further confirmed that there are no emerging proposals which could have potential adverse impacts.

- 3.34 Traffic data for the assessment has been provided by Asbri Transport Ltd, who have undertaken the Transport Assessment for the proposed development and have modelled on the basis of traffic generated from other developments affecting the local road network.
- 3.35 Nitrogen dioxide, PM₁₀ and PM_{2.5} concentrations have been predicted using the ADMS-Roads dispersion model, with vehicle emissions derived using Defra's Emission Factor Toolkit (EFT) (v9.0) (Defra, 2019b). If the Government's ambitions relating to the uptake of zero tailpipe emission vehicles are realised then the EFT's emissions projections for NO_x are likely to be overly-conservative for the latter part of the 2020s, if not the entire decade.
- 3.36 Concentrations have been modelled for twenty-five worst-case receptors, representing existing properties where impacts are expected to be greatest. In addition, the impacts of traffic emissions from local roads on the air quality for future residents have been assessed at six worst-case locations within the new development itself. In the case of nitrogen dioxide, a sensitivity test has also been carried out which considers the potential under-performance of emissions control technology on future diesel cars and vans.
- 3.37 It is concluded that concentrations of PM₁₀ and PM_{2.5} will remain below the objectives at all existing receptors in 2022, with or without the proposed development. This conclusion is consistent with the outcomes of the reviews and assessments prepared by Vale of Glamorgan Council, which show that exceedances of the PM₁₀ objective are unlikely at any location.
- 3.38 In the case of annual mean nitrogen dioxide, concentrations remain below the objective at all existing receptors in 2022, with or without the proposed development, and taking account of the sensitivity test.