

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

ENVIRONMENTAL STATEMENT

VOLUME 2

CHAPTER 12: SUMMARY AND CONCLUSIONS

12.0 SUMMARY AND CONCLUSIONS

12.1.1 This Environmental Statement (ES) has been prepared on behalf of Welsh Government to accompany an outline planning application submitted to The Vale of Glamorgan Council (VOGC) in respect of a proposed residential development, school, community facilities and associated works. The planning application description is as follows:

‘Outline application for residential development, a primary school with all matters reserved other than access.’

12.1.2 This Chapter summarises the findings of the Environmental Impact Assessment (EIA) for the construction and operation of the proposed development, which has been deemed as necessary for the extent of the proposed development which is the subject of this planning application.

12.1.3 The scope of the Environmental Impact Assessment has been discussed and agreed with officers of The Vale of Glamorgan Council, who have in turn consulted with statutory bodies. It is therefore considered that the assessment covers all necessary technical disciplines within which a potential impact could occur.

12.1.4 The key technical issues identified which are the subject of this Environmental Impact Assessment are as follows:-

- Landscape and Visual
- Ecology;
- Ground Conditions;
- Transportation; and,
- Air Quality;

12.1.5 The assessment described in this Environmental Statement (ES) relates to the design of the scheme as it stands in July 2018. The ES is published in three volumes:-

- Volume 1: Non-Technical Summary
- Volume 2: Written Statement; and
- Volume 3: Appendices to Written Statement

12.1.6 The Environmental Impact Assessment was managed by Asbri Planning Ltd. with guidance from an expert consultant team comprising Welsh Government, Austin-Smith: Lord LLP, EDP Ltd, ESP Ltd, Cambria Consulting, Asbri Transport and Air Quality Consultants.

12.1.7 Each of the technical chapters (Chapters 7 to 11) has benefitted from thorough and appropriate assessment to an agreed scope. Each respective assessment has resulted in the identification of potential impacts, the implementation of necessary mitigation and an assessment of those residual impacts which remain.

Landscape and Visual

12.2.1 Chapter 7 of the ES has been prepared by **EDP Ltd** on behalf of the Welsh Government. The chapter assesses the likely significant effects of the proposed development on Landscape and Visual Impact. The Landscape and Visual assessment of the Application Site has informed the evolution of the proposed development of the Site. It demonstrates, as far as possible for an outline application, the extent to which sensitive layout and proposals of strategic planting in the masterplan can mitigate views, retain and reinforce the landscape fabric of the Site, and

assimilates the Proposed Development into the landscape of the Site's context over time

- 12.2.2 Accordingly, the LVIA concludes that the Site can accommodate the Proposed Development as proposed on the masterplan and, given the containment of significant effects, that there is no 'in principle' landscape or visual reason why the Application Site should not be developed.

Ecology

- 12.3.1 Chapter 8 of the ES has been prepared by **EDP Ltd** on behalf of the Welsh Government. The chapter assesses the likely significant effects of the proposed development on Ecology. The Ecology chapter provides an assessment of the significance and consequences of potential ecological effects upon identified IEFs arising from the proposed residential development of Land at Upper Cosmeston Farm and has been prepared as part of an ES that accompanies an Outline Planning Application for residential purposes with all matters reserved other than access.
- 12.3.2 Avoidance, mitigation and compensation measures have been prepared as part of a holistic ecology strategy for the proposed development to address any potential significant effects that may arise during the construction (including demolition and remediation works) and operational phases of the proposed development. Additional measures to further ensure all residual effects are avoided, mitigated and compensated for, in addition to further enhancements recommended to enable the proposed development to deliver positive ecological gain, is also discussed.
- 12.3.3 The impact assessment has identified that certain actions could result in significant negative effects. Inherent avoidance, mitigation and compensation measures, to be delivered through the detailed design of the proposals at the Reserved Matters stage and through the implementation of an ECMS, EMP and future derogation licences approved by NRW, where appropriate, are therefore proposed. Such measures will ensure that residual effects identified are sufficiently ameliorated such that no significant adverse effects upon habitat and species IEFs are likely, with beneficial effects delivered to ensure biodiversity opportunities are maximised.
- 12.3.4 Based on the impact assessment and consideration of the IEFs, it is concluded that the proposals will conform to the respective legislative protection afforded to these IEFs and with respect to national and local planning policy requirements.

Ground Conditions

- 12.4.1 Chapter 9 of the ES has been prepared by **ESP Ltd** on behalf of the Welsh Government. The chapter assesses the likely significant effects of the proposed development on **Ground Conditions**.
- 12.4.2 The intrusive investigation was undertaken between 28th January and 21st February 2019 in accordance with BS5930:2015 and BS10175:2013, and was designed to investigate both geo-environmental and geotechnical hazards that may impact on the proposed Masterplan.
- 12.4.3 The ES chapter concluded that mitigation measures during construction should include:
- Good Site Management Practices in relation to the storage of materials
 - Wheel Washing facilities to minimise the tracking of material across the site

- Use of PPE and good hygiene practices to protect construction workers
- Gas monitoring to be undertaken before personnel enter any excavations
- Impermeable membranes to be incorporated into building designs
- Dust suppression measures during construction
- Regular on-site inspections where required

12.4.4 The ES concluded that mitigation measures during occupation should include:

- Use of trenches to prevent migration of contaminants
- Incorporation of gas protection measures where required.
- Any potential effects of ground contamination on building materials should be taken into account at design stage
- Water pipes should be from a material resistant to chemical attack
- Design of drainage system to remove contaminants

12.4.5 The report recommends further investigation to include:

- Completion of GW Monitoring and Preliminary CWRA
- Completion of gas monitoring
- Installation of skip tests
- Investigation of Area E should development be proposed in this area
- Additional sampling in all areas
- Investigation and testing in areas currently not accessible due to ecology
- Supplementary concrete class assessment.

12.4.6 Many, if not all, of the construction impacts can be substantially reduced or removed by adherence to good site practices. A number of occupational phase impacts are likely to create residual impacts and by implementing the above proposed mitigation measures these impacts should be kept to a minimum. It is concluded that with appropriate mitigation any potential impacts can be addressed and are not considered to be significant or likely to have a significant environmental effect on receptors

Transportation

12.5.1 Chapter 10 of the ES has been prepared by **Asbri Transport** on behalf of the Welsh Government. The chapter assesses the likely significant effects of the proposed development on **Transportation** and is accompanied by a Transport Assessment.

12.5.2 The Transport Assessment includes a capacity analysis which indicates that with the exception of the Wesbourne Road junction, that there are no major issues on capacity identified on the majority of the junctions and that the local highway network can generally accommodate a residential development comprising 576 dwellings and a primary school.

12.5.3 As such the proposed development is also considered to be located within good access to public transport services with frequent services running from bus stops within the site's vicinity. The site is also sustainably located and is within walking distance of a number of facilities/ amenities and therefore reduces the need for private car-borne trips. The proposal has also given consideration to mitigation by providing a good level of active travel improvements.

Air Quality

- 12.6.1 Chapter 11 of the ES has been prepared by **Air Quality Consultants** on behalf of the Welsh Government. The chapter assesses the likely significant effects of the proposed development on Air Quality.
- 12.6.2 The air quality assessment has concluded that that the construction works have the potential to create dust. During construction it will therefore be necessary to apply a package of mitigation measures to minimise dust emissions. With these measures in place, it is expected that any residual effects will be 'not significant'.
- 12.6.3 The operational impacts of increased traffic emissions arising from the additional traffic on local roads, due to the development, have been assessed. 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.
- 12.6.4 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.
- 12.6.5 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.
- 12.6.6 The additional traffic generated by the proposed development will affect air quality at existing properties along the local road network. The assessment has demonstrated that the increases in annual mean concentrations of PM₁₀ and PM_{2.5} at relevant locations, relative to the objectives, are predicted to range from 0% to 3%, (when rounded) and the impacts will all be *negligible*. In the case of annual mean nitrogen dioxide, the percentage increases are predicted to range from 0% to 2%, and the impacts will all be *negligible*.
- 12.6.7 The effects of local traffic on the air quality for residents living in the proposed development have been shown to be acceptable at the worst-case locations assessed, with concentrations being well below the air quality objectives.
- 12.6.8 The overall operational air quality effects of the development are judged to be 'not significant'. This conclusion, which takes account of the uncertainties in future projections for nitrogen dioxide, is based on the concentrations at existing receptors being well below the objectives and impacts all being *negligible*, while concentrations for future residents of the development will be below the objectives.
- 12.6.9 The proposed development is consistent with the PPW, which requires that new development is appropriate for its location in order to prevent unacceptable risks from air pollution. Furthermore, the proposed development does not conflict with the requirements of Policy MD7 of the Vale of Glamorgan Local Development Plan.

Summary

- 12.7.1 The Development has been subject to a thorough analysis of environmental constraints and opportunities and as the process evolved, measures have been incorporated into the proposals to avoid, reduce or offset environmental effects. Where this has not been possible, further mitigation measures have been proposed.
- 12.7.2 In conclusion, the ES has identified that the Development will result in the following beneficial residual effects:
- Provision of housing meeting a local need for housing, including affordable housing, as identified in the Local Development Plan;
 - Enhancements to the highway network;
 - Ecological and landscape enhancements;
 - The integration of drainage with landscape, ecology and amenity features;
 - Provision of a new primary school and community facilities; and,
 - Provision of a new cycleway and pedestrian enhancements for the site and wider area
- 12.7.3 The ES has also identified a number of adverse residual effects, some of which relate to effects during construction, including:
- Effects resulting from changes to the landscape and views;
 - Short term effects on traffic; and
 - Disturbance to habitats and protected species.