

MEMORANDUM / COFNOD

The Vale of Glamorgan Council
The Alps, Wenvoe, CF5 6AA



To / I:	Ceiri Rowlands
Dept / Adran:	
Date / Dyddiad:	10/05/2021
Your Ref / Eich	P/DC/LC/CR/2019/00871/OUT
Cyf:	

From / Oddi	Operational Manager Environment and
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Subject / Testyn: Planning Application No. 2019/00871/OUT Land at Model Farm, Port Road, Rhoose

Proposal: Outline application comprising demolition of existing building and erection of 44.79ha Class B1/B2/B8 business park, car parking, landscaping, drainage infrastructure, Biodiversity provision and ancillary works. All matters reserved aside from access.

This site is not located within a DAM zone at risk of tidal or fluvial flooding, and NRW flood maps indicate that there is a very low risk of surface water flooding to the site.

Overview:

Information submitted to support this application suggests that surface waters generated by the development will be disposed of via a combination of SuDS features before controlled discharge to existing watercourse (Bullhouse Brook and Whitelands Brook).

In accordance with the Welsh Governments Statutory Standards for sustainable drainage systems, surface water runoff should be disposed of according to the following hierarchy:

S1 Surface water runoff destination

1. Is collected for use;
2. Is infiltrated to ground;
3. Is discharged to a surface water body;
4. Is discharged to surface water sewer, highway drain, or another drainage system
5. Is discharged to a combined sewer.

Initial Infiltration testing submitted in support of this application (RPS April 2019) indicates that infiltration at shallow depths to be generally poor of which we are in acceptance. It is suggested that further penetration through the bedrock may produce a greater variation in permeability rates. In line with the Environment Agency's Approach to Groundwater Protection (February 2018) adopted by NRW we would discourage the use of any infiltration system that bypasses the soil layer, limiting the ability of the ground to attenuate pollutants.

Should infiltration techniques be used within the final design, it will be required that further testing is required in areas of proposed infiltration. All testing should be undertaken at the proposed site of infiltration inclusive of permeable surfaces. Where larger infiltration features are to be used we would require additional testing to be undertaken on a 25m grid basis. Infiltration testing should be completed at an appropriate depth to that of the proposed design.

It is proposed within the Sustainable Drainage Assessment (RPS July 2019) that surface waters from impermeable surfaces will be treated and controlled at source where possible, before discharge to watercourse. It is proposed that the rate of discharge will be restricted to existing greenfield runoff rates. We find these discharge rates acceptable in principle and would request

that further hydraulic calculations are provided on final design demonstrating the discharge rate at the point of discharge. The design of any offsite drainage system should demonstrate that the scheme does not adversely affect offsite flood risk elsewhere.

It has been indicated that the drainage scheme will provide hydraulic control up to a 1 in 100 year return period + climate change (30%) with preliminary calculations provided to demonstrate the required level of storage. No Flood Exceedance Plan has been submitted with this application. Conveyance routes should be selected such that likely changes on the site will not prevent the safe routing of flood flows. The Flood Exceedance Plan must also take into consideration the effect of receiving flows from the wider catchment.

No details on the management and maintenance of the proposed drainage system have been included with this application. A management plan which includes details on future management responsibilities for the site and its drainage assets should be submitted and approved in writing by the LPA. This plan shall detail the strategy that will be followed to facilitate the optimal functionality and performance of the drainage scheme throughout its lifetime.

No Construction Environmental Management Plan (CEMP) has been submitted with this application. The submitted CEMP must make reference to the proposed SuDS features and how pollution / silt mitigation measures will be implemented to protect these features and associated watercourse. The submitted CEMP will also be required to make reference to the phasing of the development and how the proposed drainage (permanent or temporary) will be managed during construction.

The proposed development is subject to SAB approval. As such the applicant is advised to submit a detailed design through the SAB process and is therefore not subject to further planning condition.

Advisory:

New developments of more than one dwelling or where the area covered by construction work equals or exceeds 100 square metres as defined by The Flood and Water Management Act 2010 (Schedule 3), will require SuDS Approval Body (SAB) approval prior to the commencement of construction.

Given the proposal to discharge surface waters into a watercourse, the applicant is advised to seek ordinary watercourse consent from the Lead Local Flood Authority.

Any works to watercourses, including ditches and streams where defined by the Land Drainage Act 1991, require Land Drainage Consent by the relevant drainage body (Lead Local Flood Authority – Vale of Glamorgan Council). Works include permanent and temporary works, including temporary crossings during construction phases.

Gareth Thelwell-Davies
Engineer – Environment

for Operational Manager Environment and Engineering
ar gyfer Rheolwr Gweithredol Amgylchedd a Pheirianneg