

ELBA CRESCENT TECHNICAL NOTE

Date: 29 July 2025
To: Neath Port Talbot County Borough Council
From: RPS Hydrology
Pages: 4
Regarding: Additional Drainage Information

Introduction

RPS previously prepared a Flood Risk Assessment (FRA) and Drainage Feasibility report of land north of Elba Crescent, Swansea SA1 8QE in relation to the proposed residential development (reference: 794-ENV-HYD-20065, March 2024). The submitted application (ref: P2022/0563) received third party objections relating to existing drainage problems and holding objections from Welsh Water/Dwr Cymru regarding proximity to assets.

The aim of this technical note is to provide updated information on existing drainage systems available on site alongside presenting an update to flood risk on site in line with NRW's updated flood mapping.

Background

The site is located east of Swansea at National Grid Reference SS 69668 93056. The site location is presented in Figure 1. The application boundary makes up an area of 4.6ha.

The site is currently occupied by redundant car parking associated with a wider estate or previous development. As identified via satellite imagery, some hardstanding car park areas have been reclaimed by native shrubland. Surrounding land use is mixed industrial and residential.

The Cors Crymlyn / Crymlyn Bog Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) exists approximately 430 m north of the site. Additionally, the Crymlyn Burrows SSSI exists approximately 500 m south east of the site

Updates to TAN15

TAN15 was updated in March 2025 and provides technical guidance to supplement the policy set out within PPW in relation to development and flooding and coastal erosion. Included in the guidance is information on events in which developments should remain flood free.

The proposed development is classed as 'Highly Vulnerable' in flood risk terms. The required design standard for new development is to be flood free during the 1% river flood (i.e. a flood with a 1 in 100 chance of occurring in any year) and the 0.5% flood from the sea (i.e. a flood with a 1 in 200 chance of occurring in any year), plus an allowance for climate change over the lifetime of a development.

The proposed development is to be raised to at least 7.91m AOD, ensuring it will remain flood free in the 1 in 200 year +Climate Change allowance flood event, in line with guidance in TAN15.

Surface Water Flood Risk

The FRA also included the surface water flood mapping available on site, which has now been released in NRW's Flood Map for Planning. The FRA concluded:

- The site is predominantly located in Flood Zone 1 corresponding with an annual probability of flooding that is less than 1 in 1,000 (0.1%).
- There is a portion of land along the centre of the southern boundary that is located within Flood Zone 2, whereby the annual probability less than 1 in 100 (1%) but greater than or equal to 1 in 1,000 (0.1%) including an allowance for climate change, and Flood Zone 3, corresponding with an annual probability greater than 1 in 100 (1%) including an allowance for climate change.

Surface Water Management

As part of the FRA, drainage feasibility was included, concluding:

- The bedrock and superficial geology under the site are both classified as Secondary A Aquifers. Based on the underlying geology at the site infiltration could provide a viable means for the disposal of surface water. Soakaway testing in accordance with BRE 365 should be undertaken to investigate the feasibility of infiltration at the site and determine site-specific groundwater levels.
- Should infiltration not prove viable, or should it not be suitable as the sole means of disposal of surface water, in line with the drainage hierarchy discharge should outfall the Tennant Canal which is present north of the site. However, due to the ecological conservation status, use of a pollution interceptor should be considered at design stage.
- As there are no surface water sewers in the vicinity of the site, discharge into a surface water sewer has not been considered. However, a combined sewer is present south of the site along Fabian Way.

Since the production of the report, the client has provided RPS with additional information on on-site drainage available (Appendix A).

Currently the site is served by surface water drains which feed into a below ground attenuation tank situated in the south of the site. Water is then piped eastwards out of the site under agreed with adjacent landowner. It is proposed to retain both the attenuation tank and discharge location as a feasible means of surface water management for the proposed development.

A layout of the existing drainage on site is available in Appendix A. Other surface water drains may be present on site, but due to current conditions and overgrowth on site it is not known where these are located.

The site is currently brownfield; within the FRA a comparison has been made between existing brownfield runoff rates and estimated greenfield runoff. Proposed surface water drainage on site will be restricted to / as practically close to the greenfield rate, meaning an improvement on current conditions will be seen.

Summary and Conclusions

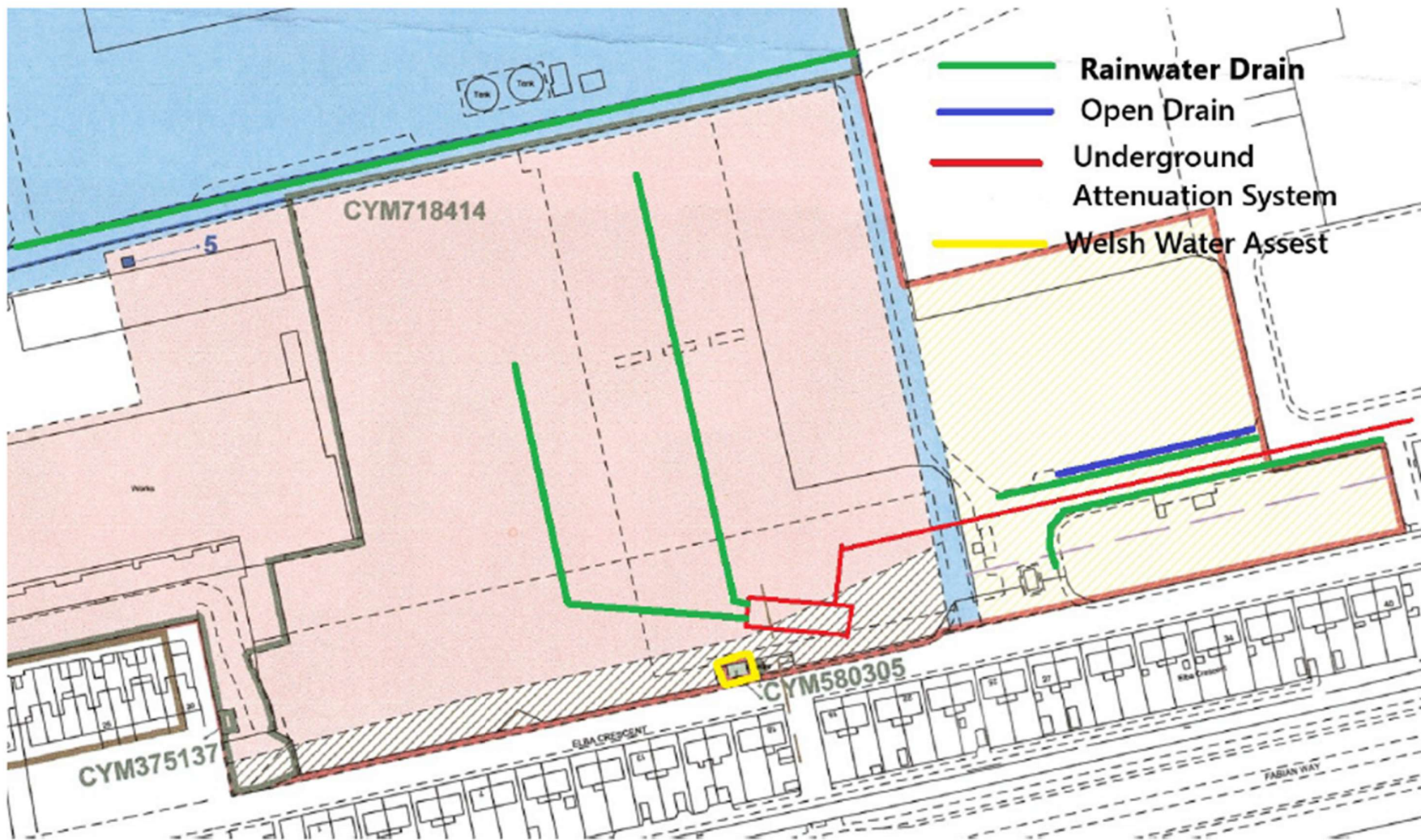
Summary

Overall it has been determined that there is no material change as a consequence of the update to NRW flood mapping.

Additional information provided by the client with respect to existing onsite drainage indicates that there is a viable drainage network into which the proposed development can be connected.

Appendix A

On Site Drainage



- Rainwater Drain
- Open Drain
- Underground Attenuation System
- Welsh Water Asset