

Title: Waterfalls Country Centre, Flood Risk Note
for Planning – P03

Date: Sept 2024

I. Technical Advice Note 15

Jubb have been instructed by Andrew Scott Ltd to provide civil engineering input relating to drainage and flooding for the Waterfall Country Centre visitor hub development at Pontneddfachen, Neath. The proposed development is approximately 1.2ha in size and located on National Grid Reference centered on National Grid Reference 290072 E; 207570 N. The site currently consists of grassed fields and a number of farm buildings.

The Welsh Assembly Government's policy with respect to development in flood risk areas is set out in '*Planning Policy Wales, Technical Advice Note 15: Development, flooding and coastal erosion*', published September 2021 (TAN15) and revised in March 2023.

II. Flood Risk

Natural Resources Wales (NRW) Development Advice Mapping has been used to assess the risk of flooding from various means to the development site. Extracts from NRW's mapping software have been included in the appendices.

a. Fluvial Flood Risk

The main risk from fluvial flooding in the area comes from the River Neath located along the eastern and southern boundary. The NRW flood mapping shows that the proposed areas for development are located beyond the extent of the flood zone except for the southern extent which there are no proposed developmental areas such as buildings, roads, car parks, and therefore is not considered a risk for fluvial flooding. The existing site entrance has been categorised as a low flood risk from rivers, therefore has a risk of flooding between 1 in 1000 and 1 in 100 years.

b. Coastal/tidal flooding

The development is situated away from any coastal areas and the development advice map does not indicate any areas at risk of coastal flooding nearby.

c. Pluvial Flood Risk

The NRW flood mapping shows the proposed site is not within risk areas of pluvial surface water flooding.

d. Flood Risk from Sewers

From review of NRW flood mapping and a utility survey there is shown to be no flood risk within the region of existing sewers.

e. Reservoirs, canals, and other artificial sources

There are no reservoirs, canals, or other artificial sources in the proximity to the site.

f. Groundwater Flood Risk

The ground conditions assessment report (ref. 23158-JCE-XX-XX-RP-GE-001-P1) states there to be a high ground water vulnerability from secondary aquifers beneath the site.

Despite this groundwater will not be a risk to the site and the more associated risk will be fluvial - *The site is next to a river, approximately 2-3m below the eastern site levels, and the site is underlain with a geology of high permeability, groundwater will likely be in direct continuity with the river, within 1m above the river water levels, with gradient from the northwest. The groundwater levels is expected to fluctuate with the river levels, responding to precipitation and therefore may be subject to groundwater flooding associated with fluvial flooding.*

g. Development Advice Zoning

The NRW Flood Map for Planning shows that the area for development is not within any flood zones for fluvial and surface water flooding. The River Neath runs parallel to the eastern boundary but its flood zone catchment does not encroach within the proposed development footprint except for the south end where there are no proposals for civil amenities.

The designated site is "considered to be at little or no risk from fluvial or coastal/tidal flooding", showing the area is suitable for development and there is no need to consider flood risk further.

In the event that further testing identifies that the infiltration rate is unsuitable to accommodate the proposed design or that groundwater levels prevent infiltration then the stormwater will be discharged to the River Neath by a shallow ditch and restricted to greenfield run off rates via a suitable flow control device. Details for this ditch are to be confirmed should it be required.

III. Appendices – NRW Flood Maps for Planning

Flood Map for Planning - Basic
Waterfalls Country Centre

Legend

TAN15 Defended Zones

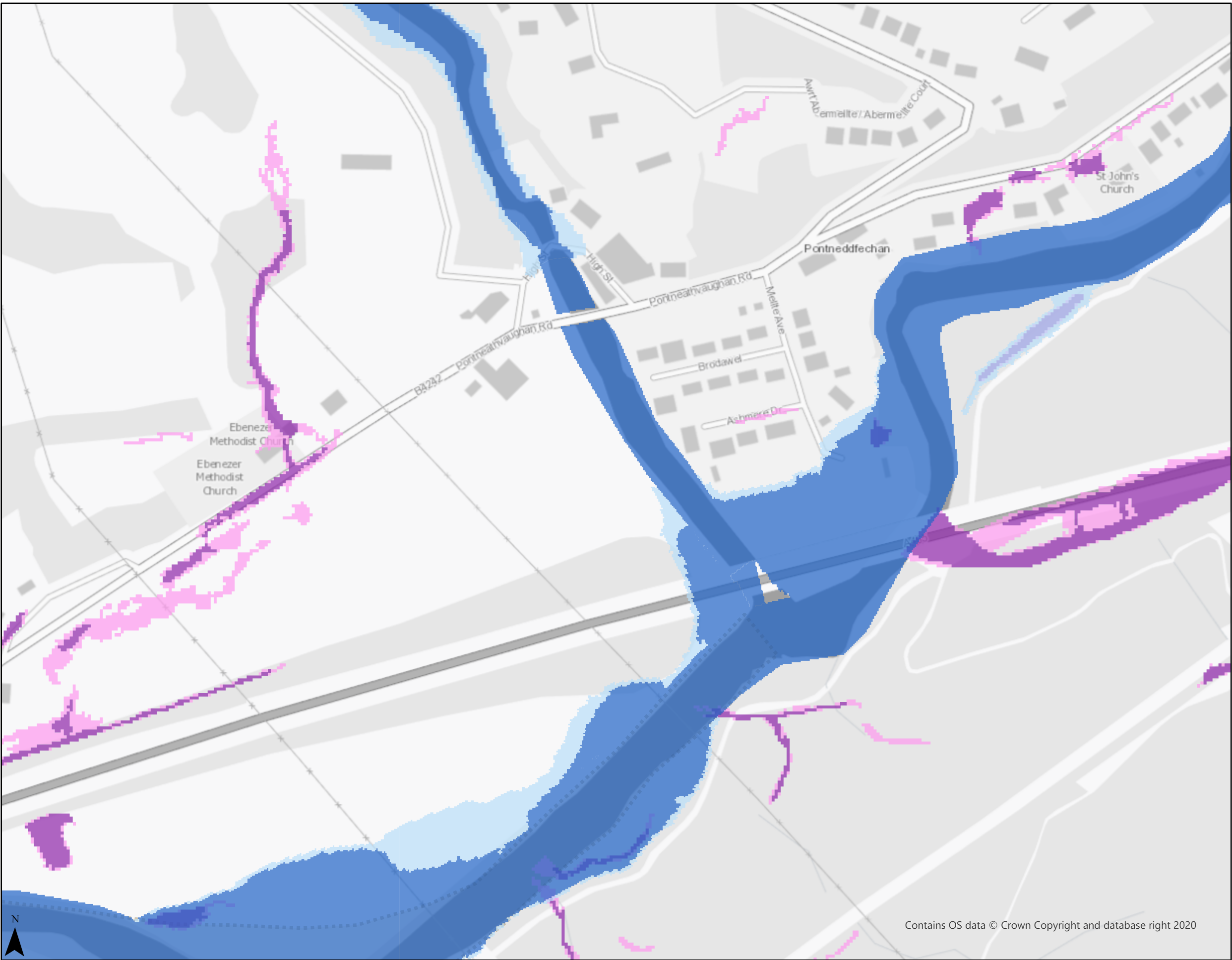
- Rivers
- Sea
- Rivers and Sea

Rivers and Sea

- Flood Zone 3
- Flood Zone 2

Surface Water and Small Watercourses

- Flood Zone 3
- Flood Zone 2
- Recorded Flood Extents



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Scale at A3: 1:2,500

Date: 26/03/2024

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0.1 0.05 0 0.1
km

British National Grid