

# **Flood Consequences Assessment - Pyle Garden Centre**

**Version 2**

**January 2023**

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**Pyle Garden Centre Ltd  
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## Revision History

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## Contract

This report describes work commissioned by Alex Smith of Simply Planning, on behalf of Pyle Garden Centre Ltd, by an email dated 23 September 2022.

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## Abbreviations

|        |                               |
|--------|-------------------------------|
| AEP    | Annual Exceedance Probability |
| BGS    | British Geological Survey     |
| DAM    | Development Advice Map        |
| DTM    | Digital Terrain Model         |
| FCA    | Flood Consequences Assessment |
| FRAW   | Flood Risk Assessment Wales   |
| FMfP   | Flood Map for Planning        |
| JBA    | Jeremy Benn Associates        |
| LDP    | Local Development Plan        |
| mAOD   | Metres Above Ordinance Datum  |
| NRW    | Natural Recourses Wales       |
| PPW    | Planning Policy Wales         |
| TAN 15 | Technical Advice Note 15      |

# 1 Introduction

## 1.1 Terms of Reference

JBA Consulting were commissioned by Pyle Garden Centre Ltd to prepare a Flood Consequences Assessment (FCA) to support a planning application for an extension to provide four additional retail units at Pyle Garden Centre, Pyle, Bridgend.

## 1.2 FCA requirements

This FCA follows Welsh Government guidance on development and flood risk set out in Technical Advice Note 15: Development and Flood Risk (TAN-15)<sup>1</sup>. Where appropriate the following aspects of flood risk will be addressed over the expected lifetime of development:

- The likely mechanisms of flooding
- The likely source of flooding
- The depths of flooding through the site
- The speed of inundation of the site
- The rate of rise of flood water through the site
- Velocities of floodwater across the site
- Overland flow routes
- The effect of access and egress and infrastructure, for example public sewer outfalls, combined sewer outflows, surface water sewers and effluent discharge pipes from wastewater treatment works
- The impacts of the development in terms of flood risk on neighbouring properties and elsewhere on the floodplain

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<sup>1</sup> Welsh Government, 'Planning Policy Wales Technical Advice Note 15: Development and Flood Risk', July 2004.

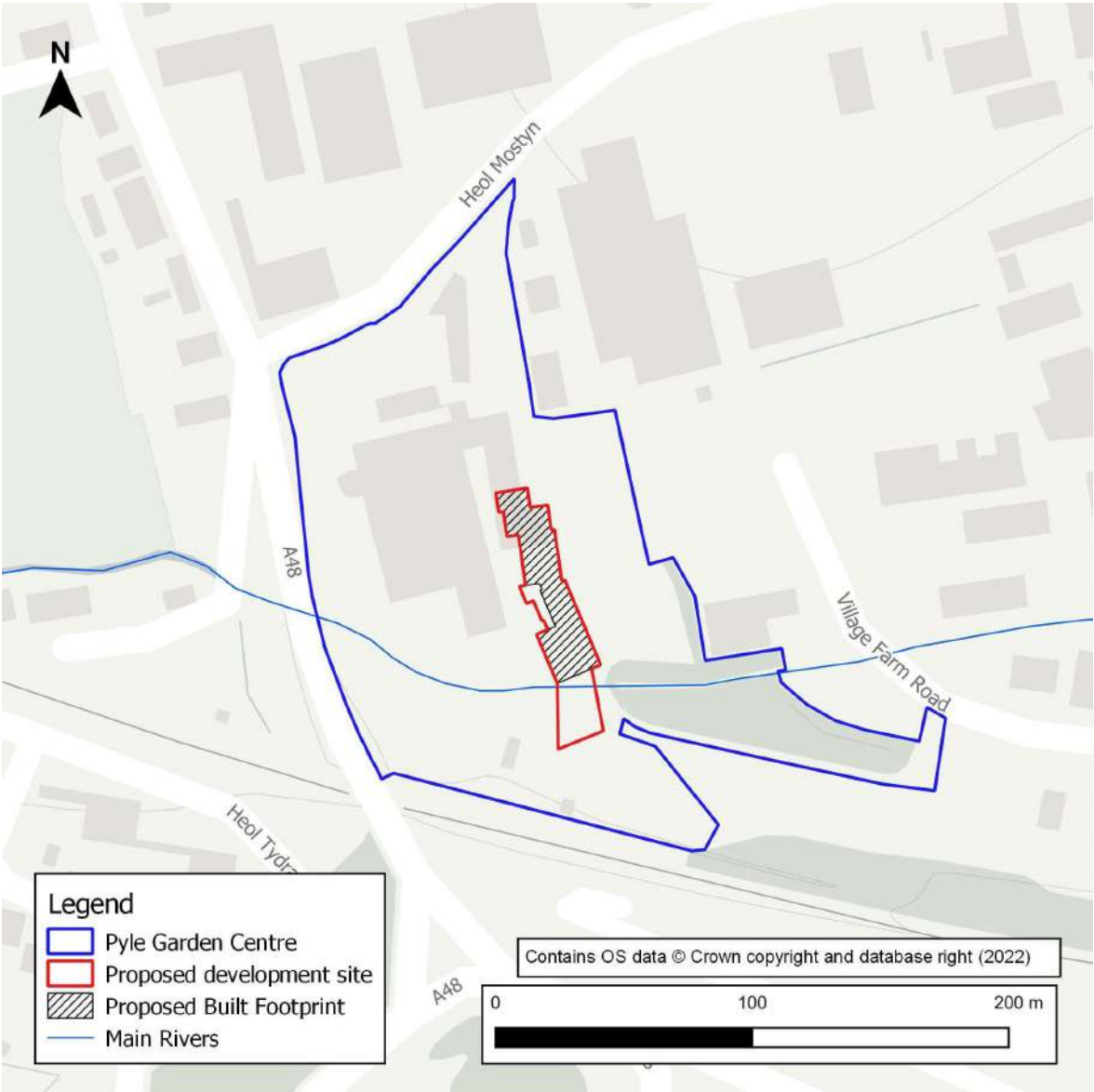
## 2 Site Description

### 2.1 Site Summary

Pyle Garden Centre is located south of Heol Mostyn road, in the town of Pyle, Bridgend and currently comprises the main Pyle Garden Centre building and associated retail concession units, storage and parking areas. The Pyle to Bridgend railway line is located immediately south of the Garden Centre, with Pyle Road (A48) to the west and Heol Mostyn road to the north. Land to the east is commercial/industrial in nature and forms the Village Farm Industrial Estate.

The Afon Fach, a classified Main River, flows from east to west through and beneath the proposed development area and the wider Pyle Garden Centre site.

The site location is indicated in Figure 2-1 below with the existing block plan included as Appendix A.



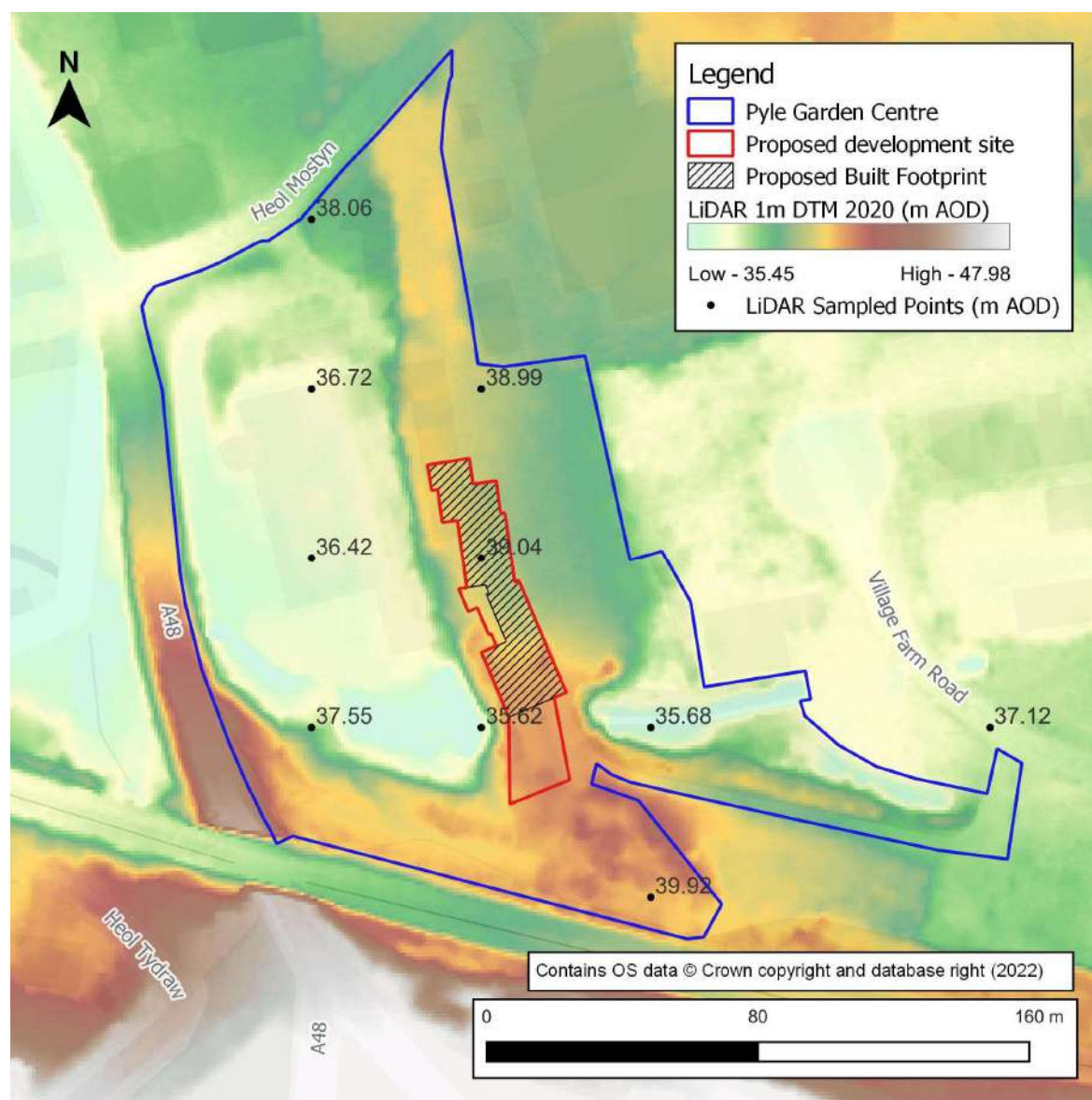
**Figure 2-1 Site location**

## 2.2 Existing land use and site topography

The proposed development site is hardstanding in its entirety and therefore is considered to be a previously developed brownfield site. The site is currently occupied by the Pyle Garden Centre and its associated Unique Woodwork Business, with associated car parking and storage areas.

No site-specific topographic survey is available at this time. Therefore, site topography has been inferred using Natural Resources Wales (NRW) LiDAR mapping. Figure 2-2 shows the topography of the site and surrounding area based on a Digital Terrain Model (DTM).

Figure 2-2 indicates that ground levels in the area of proposed development range between 39.05m AOD and 40.38m AOD. Generally, the site has a slight fall towards the Afon Fach.



**Figure 2-2 Digital Terrain Model**

## 2.3 Soils and Geology

The geology of the site has been ascertained by reference to the British Geological Survey (BGS) website.

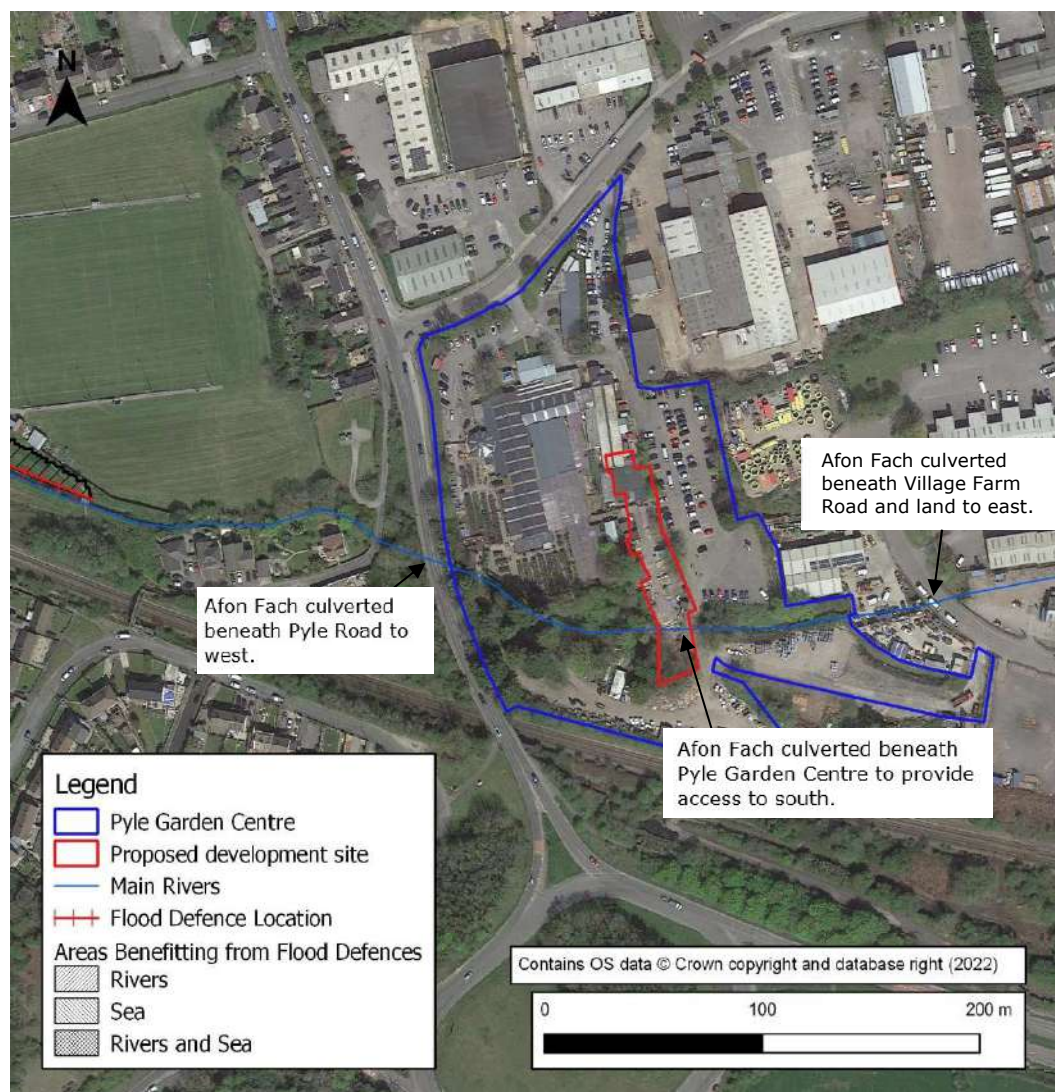
BGS online mapping and paper map 262 (Bridgend) indicate that the site is underlain with superficial deposits of Devensian Till (Diamicton). In the south of the site Till is overlain by deposits of Alluvium (clay, silt, sand and gravel), associated with the route of the Afon Fach.

Underlying bedrock in the north of the site comprises the St Mary's Well Bay Member (limestone and mudstone, interbedded). The Mercia Mudstone Group (Mudstone) underlies the St Mary's Well Bay Member and appears to be present beneath the entirety of the site.

## 2.4 Watercourses and flood defences

The Afon Fach is classified as a Main River. It flows in a westerly direction through the south of the site. Approximately 2km downstream of the Pyle Garden Centre, the Afon Fach discharges to the Afon Cynffig which continues to flow in a westerly direction. The Afon Fach is culverted under much of the site to provide access to the south.

The NRW Flood Risk Assessment Wales (FRAW) mapping indicates that there are no formal flood defences in the area. However, as shown in Figure 2-3, FRAW mapping does identify a section of flood defence in the form of an embankment along the Afon Fach, approximately 180m to the west (downstream) of the site, that benefits a largely residential area to the north.



**Figure 2-3 Flood defences and Areas Benefitting from Flood Defences**

## 2.5 Development Proposal

The proposed development comprises the extension to the existing Pyle Garden Centre to provide four additional retail units to the south of the existing building. Each of the additional retail units will be accessed via the car park area to the east and will not be connected via internal doorways. A minor internal reconfiguration is proposed in the area of the existing building that the proposed retail units will adjoin to.

The proposed building layout is included in Appendix B, with an extract provided as Figure 2-4.



**Figure 2-4 Extract of proposed layout**

## 3 Planning Policy and Flood Risk

### 3.1 Planning context

Planning Policy Wales (PPW)<sup>2</sup> sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales. These policies have the aim that all development in Wales is sustainable and improve the social, economic, environmental, and cultural wellbeing of Wales as set out in the Wellbeing of Future Generations Act 2015.

Technical Advice Note 15 (TAN15), introduced by the Welsh Government in 2004, provides technical guidance relating to development planning and flood risk in Wales. The initial requirements of TAN15 are to identify the vulnerability classification(s) and flood zones relevant to the proposed development, and to apply this information to the application of the justification tests.

An update for TAN15 was released in October 2021 and was due to come in force on the 1<sup>st</sup> December 2021. However, Welsh Government have since suspended the implementation of the new TAN15 until 1<sup>st</sup> June 2023. Although the new TAN15 is not a material consideration, Welsh Government and NRW advise that some consideration is given to the draft Flood Map for Planning (FMfP) as this new mapping may constitute best available information. Therefore, where a site is located in a FMfP flood risk zone it is recommended that an FCA is carried out.

As a result of the above, both the DAM and the FMfP are considered as part of this FCA.

### 3.2 Vulnerability classification

TAN15 assigns one of three flood risk vulnerability classifications to a development, as shown in Table 3-1. As commercial development, the proposals fall into the classification of 'Less Vulnerable Development'.

**Table 3-1 Flood Risk Vulnerability**

| Development category          | Types                                                                                                                                                                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Emergency services            | Hospitals, ambulance stations, fire stations, police stations, coastguard stations, command centres, emergency depots and buildings used to provide emergency shelter in time of flood.                                                                  |
| Highly vulnerable development | All residential premises (including hotels and caravan parks), public buildings (e.g. schools, libraries, leisure centres), especially vulnerable industrial development (e.g. power stations, chemical plants, incinerators), and waste disposal sites. |
| Less vulnerable development   | General industrial, employment, <b><u>commercial and retail development</u></b> , transport and utilities infrastructure, car parks, mineral extraction sites and associated processing facilities, excluding waste disposal sites.                      |

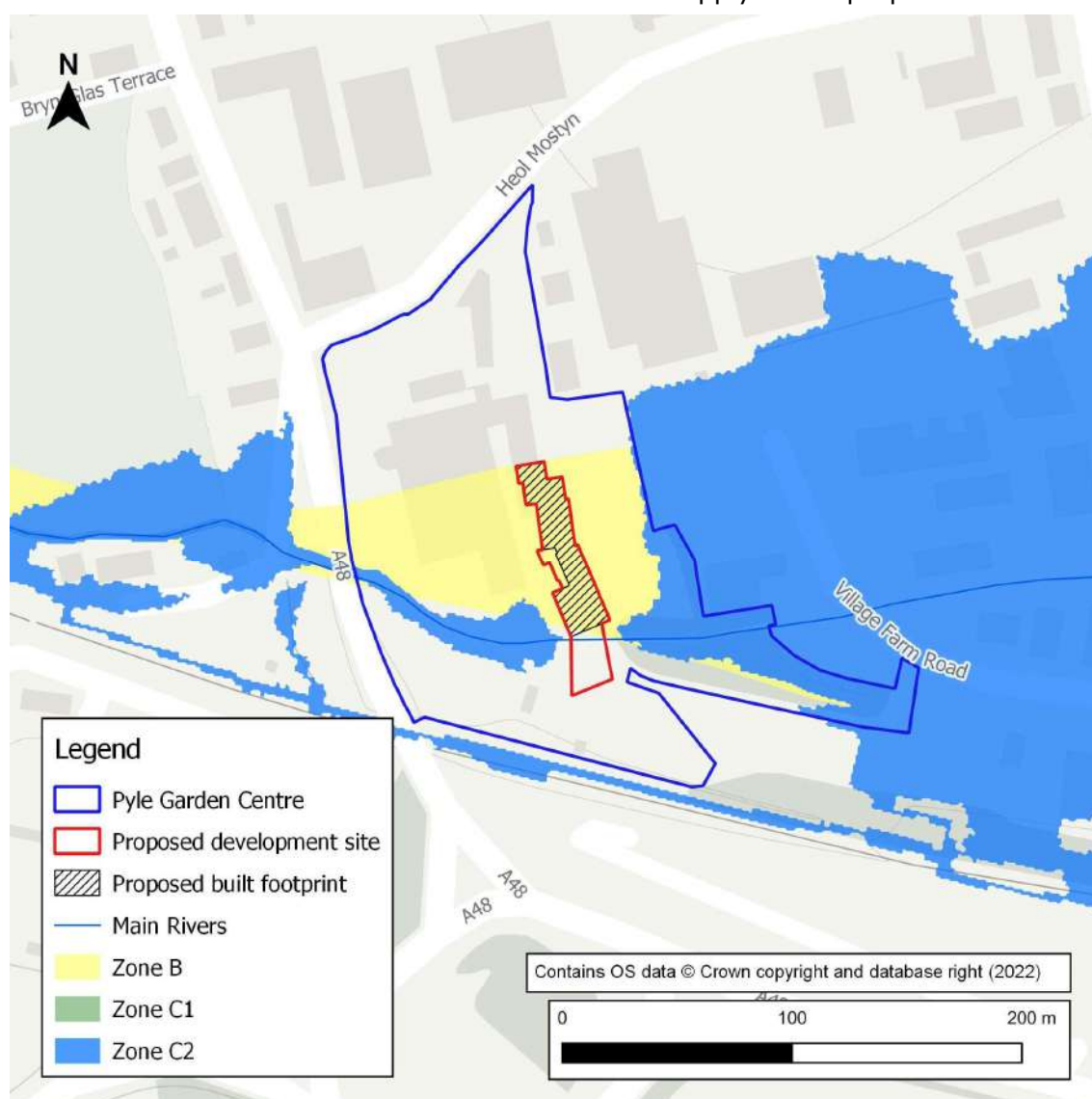
<sup>2</sup> Welsh Government, 'Planning Policy Wales: Edition 11', February 2021.

### 3.3 Development Advice Map Zoning

The Development Advice Map (DAM) is used to trigger different planning actions based on a precautionary assessment of flood risk. Figure 3-1 shows that the south of the proposed development area is located in Zone A (little or no risk of fluvial or tidal/coastal flooding), with the north of the development area located in Flood Zone B.

Zone B covers areas known to have been flooded in the past, evidenced by sedimentary deposits taken from BGS mapping. TAN 15 states that in areas of Zone B, site levels should be checked against the extreme (1 in 1000 year) flood level. If site levels are greater than the extreme flood level, there is no need to consider fluvial/tidal flood risk further. Since the advent of detailed 2D flood modelling Zone B has lost its importance as demonstrated by its removal from the new Flood Map for Planning. An FCA is generally not required to support development in Zone C2.

Zone C2 is described as areas of the 1 in 1000 year floodplain (river, tidal or coastal) without significant flood defence infrastructure. In line with TAN 15, this Flood Zone is used to indicate that only 'less vulnerable' development should be considered, subject to the application of the Justification Test. No development is proposed within the Zone C2 extent and therefore the Justification Test does not apply to the proposals.

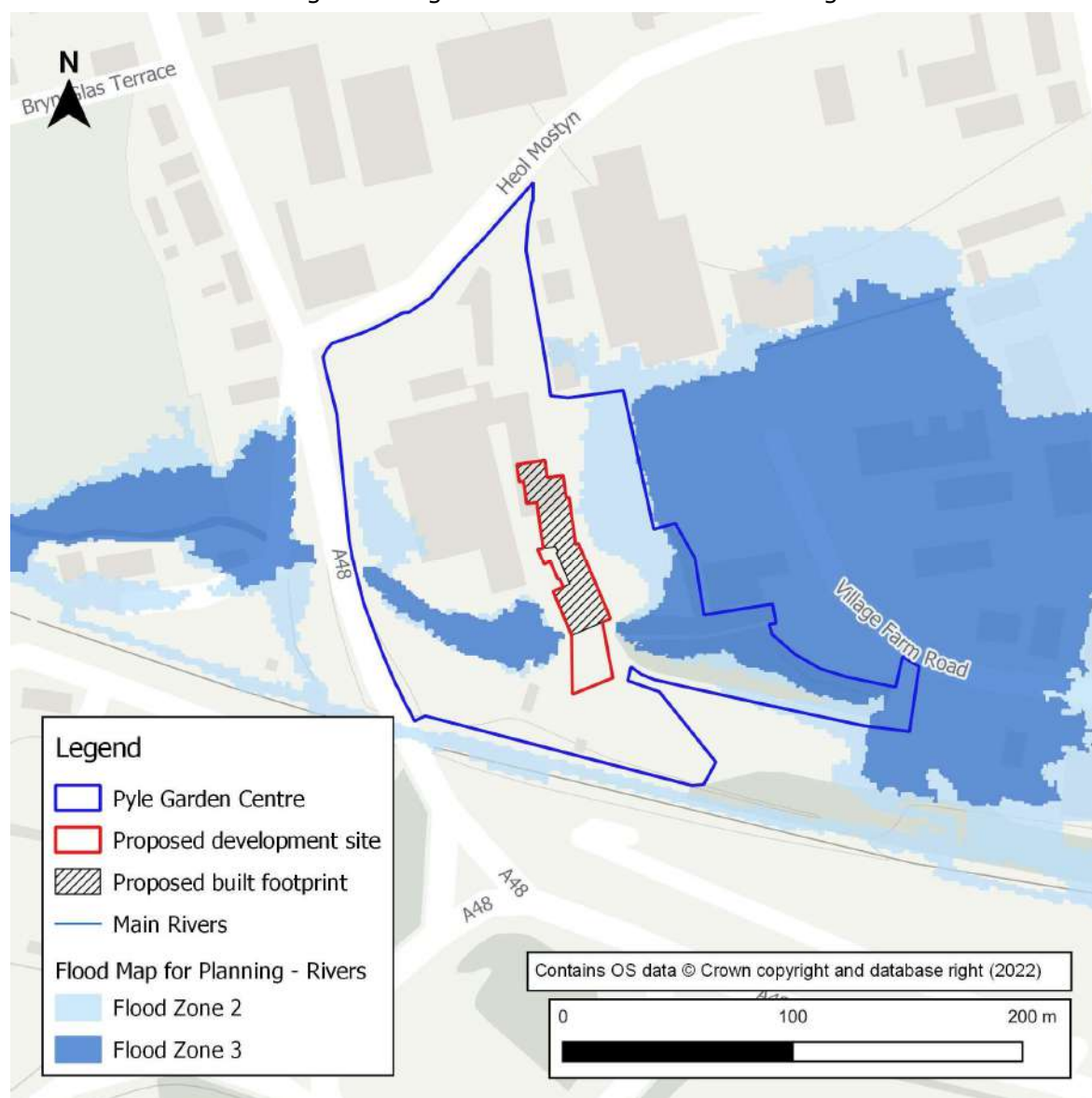


**Figure 3-1 NRW Development Advice Map**

### 3.4 Flood Map for Planning

The new TAN15 will replace the DAM with the Flood Map for Planning (FMfP), which will be used to trigger different planning actions based on a precautionary assessment of flood risk. Whilst the new TAN15 is not a material consideration until implemented, it does illustrate the current policy thinking of Welsh Government and in some cases the FMfP may constitute best available information. Consequently, information on the FMfP is provide for information only. Importantly the FMfP includes for the predicted effects of climate change, whereas the DAM does not.

As shown in Figure 3-2, the proposed development is located in Flood Zone 1 of the FMfP for Rivers. This means that there is less than a 1 in 1000 year probability of fluvial flooding in any given year, including climate change. The existing car park to the east of the proposed development is located in Flood Zone 2, where there is a 1 in 1000 year chance of fluvial flooding including an allowance for climate change.



**Figure 3-2 Flood Map for Planning Rivers**

### 3.5 Justification Test

As the area of proposed development lies outside of the 1 in 1000 year flood extent as demonstrated by both the DAM and FMfP, the Justification Test does not apply.

However, for completeness Table 3-2 summarises how the proposed development would meet the requirements set out within the Justification Test. All of the criteria have been satisfied with regards to the proposed development.

**Table 3-2: Justification Test applied to the proposed development**

| TAN 15 Justification Criteria                                                                                                                                                                                                                                                                  | Comments                                                                                                                                                                                                                                                                                                             | Satisfied |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Its location is necessary to assist a local authority regeneration initiative or strategy, or contribute to key employment objectives, necessary to sustain an existing settlement or region                                                                                                   | The proposed development will assist with Policy REG1(36) of the Bridgend Local Development Plan <sup>3</sup> and will contribute to employment and regeneration objectives in Pyle. Land is allocated and protected for employment development at Village Farm Industrial Estate under REG1(36) 'Employment Sites'. | ✓         |
| The site meets the definition of previously developed land (i.e. it is not a Greenfield site) and concurs with the aims of Planning Policy Wales (i.e. the presumption in favour of sustainable development)                                                                                   | The proposed development site is within the existing Pyle Garden Centre site in an area that is currently used for storage.                                                                                                                                                                                          | ✓         |
| A Flood Consequence Assessment has been produced to demonstrate that the potential consequences of a flood event up to the extreme flood event (1 in 1000 chance of occurring in any year) have been considered and meet the [Acceptability Criteria] ... in order to be considered acceptable | An assessment of the flood consequences at the site has been undertaken to demonstrate the proposed development's acceptability. See Sections 4 and 5.                                                                                                                                                               | ✓         |

<sup>3</sup> Bridgend County Borough Council, Bridgend Local Development Plan 2006-2021, Adopted September 2013.

## 4 Review of Existing Flood Risk Data

This section assesses the risk to the proposed development from all sources of flooding, the risk of increased flooding to others, and how flood risks can be managed. This section of the FCA is based solely on a desk-based analysis of existing flood risk data.

### 4.1 Review of Existing Flood Risk

The latest available information on flood risk at the site, published by Natural Resources Wales (NRW) and the Lead Local Flood Authority (LLFA) is summarised in Table 4-1, below.

**Table 4-1 Summary of Flood Risk**

| Source of Flooding                   | Onsite Presence | Description                                                                                      |
|--------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|
| Rivers                               | ✓               | The site is located in an area of low flood risk from rivers.                                    |
| The Sea                              | ✗               | The site is not at risk of flooding from the sea.                                                |
| Surface Water and Small Watercourses | ✗               | The site is located in an area of very low flood risk from surface water and small watercourses. |
| Groundwater                          | ✗               | The site is at low risk of groundwater flooding.                                                 |
| Reservoirs                           | ✗               | The site is not within an area of reservoir failure flood risk.                                  |
| Sewers                               | ✗               | There is no evidence to suggest that the site is at risk of flooding from sewers.                |

### 4.2 Historic Flood Risk

The NRW FRAW Historic Flood Outline does not identify any historical flooding in the area. However, the Bridgend County Borough Council Preliminary Flood Risk Assessment<sup>4</sup> (PFRA) includes a summary of past flooding and indicates that in June 1998, flooding effected Village Farm Industrial Estate as a result of capacity issues of a culverted section of watercourse. The extent of flooding during this event is unknown, but it believed to be further upstream to the garden centre site.

### 4.3 Risk of flooding from the sea

NRW FRAW Flood Risk from the Sea mapping illustrates that the site is not located within an area at risk of flooding from the sea. Given the sites proximity to the sea and tidally influenced watercourses, the site is not considered to be at risk of flooding from the sea.

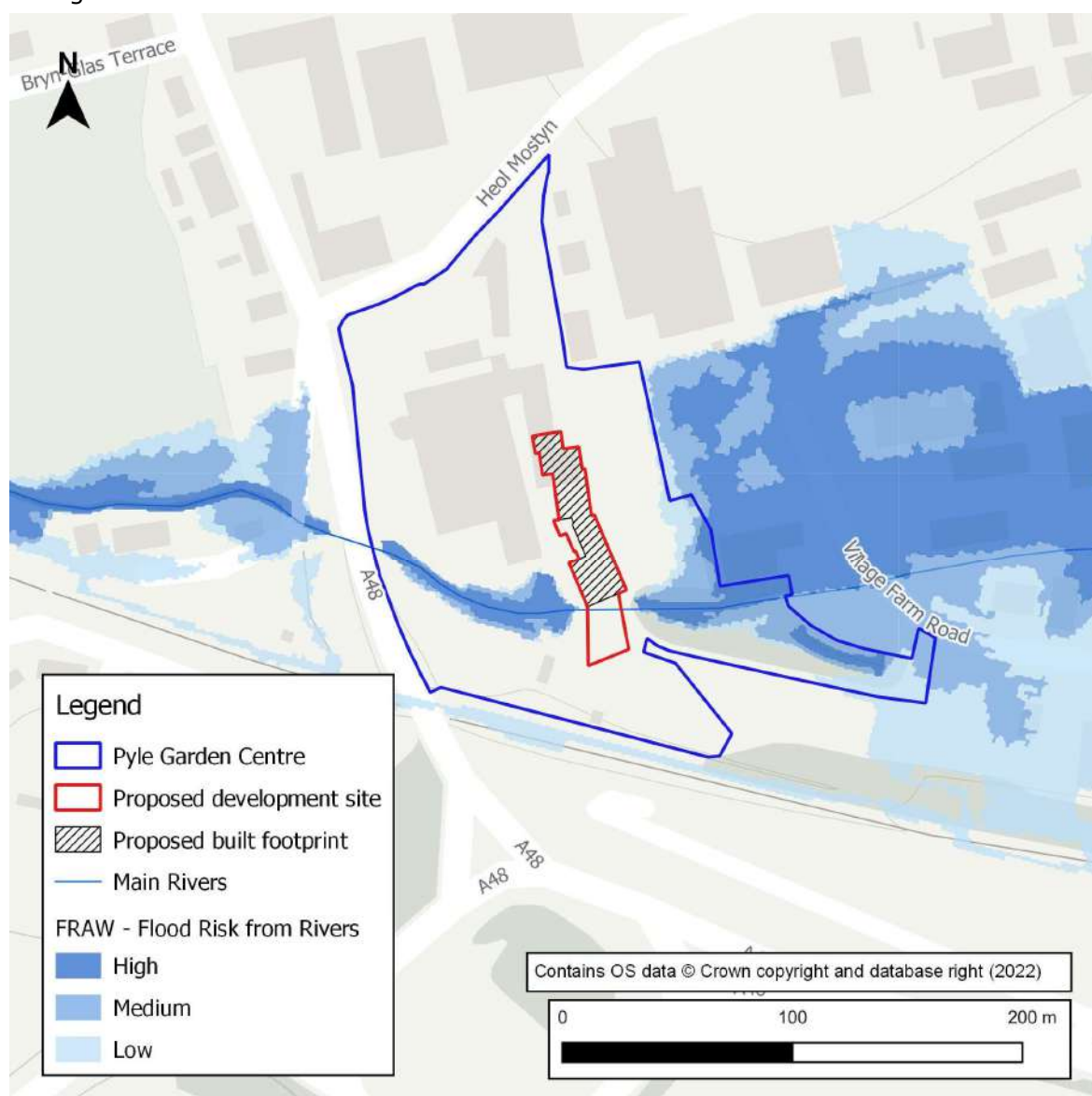
### 4.4 Risk of flooding from rivers

The NRW FRAW Flood Risk from Rivers map shows that the area of proposed development is located in areas of 'very low' risk of flooding from rivers, as shown in Figure 4-1.

'Medium' risk describes areas with between a 1 in 30 and 1 in 100 chance of river flooding whilst 'high' risk areas are classified with a greater than 1 in 30 year chance of flooding.

<sup>4</sup> Bridgend County Borough Council, 'Bridgend County Borough Council Preliminary Flood Risk Assessment Report Addendum Review', November 2017.

FRAW mapping does not contain an assessment of the potential impacts of climate change.



**Figure 4-1 FRAW Flood risk from rivers**

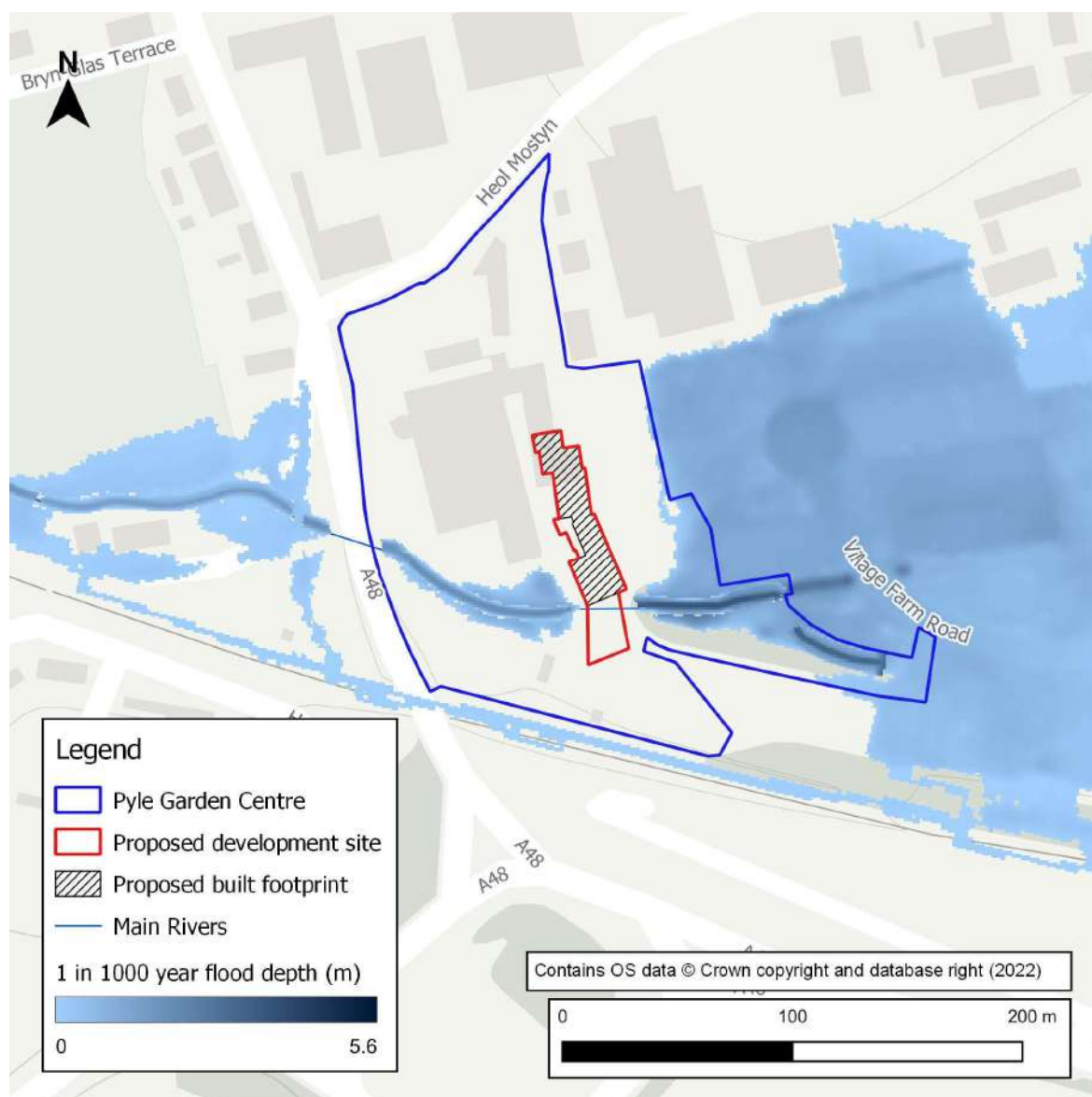
Results of the Pyle Hazard Mapping study (2013) were provided by NRW and include a series of depth, velocity, flood level and hazard output grids for the 1 in 100 year, 1 in 100 year plus a 20% allowance for climate change and 1 in 1,000 year flood scenarios, amongst other lesser return periods. Full correspondence with NRW is included as Appendix C.

Welsh Government climate change guidance<sup>5</sup> states that for 'less vulnerable' development in the Western Wales River Basin District, a climate change allowance of 25% should be applied to the 1 in 100 year event. Modelling undertaken to date has not incorporated this allowance and instead includes an allowance of 20%. As the modelled climate change allowance does not match current guidance, the development will be assessed against the 1 in 1000 year event to illustrate a conservative approach.

<sup>5</sup> Welsh Government Planning Policy Branch, 'Flood Consequence Assessments: Climate change allowances', September 2021.

Figure 4-2 shows that the present day 1 in 1000 year flood extent does not encroach into the area of proposed development. Only a small area in the southeast of the wider Pyle Garden Centre site and the channel of the Afon Fach is affected during this flood event.

The modelled 1 in 1000 year flood level upstream of the onsite culvert is 38.07m AOD. This equates to at least 980mm below existing ground levels in the area of proposed development. In accordance with TAN 15 and development in DAM Zone B, if site levels are greater than the extreme flood level, there is no need to consider fluvial flood risk further.



**Figure 4-2 Pyle Hazard Mapping 1 in 1000 year flood depth**

The Flood Map for Planning includes allowances for climate change in the flood mapping. The mapping furthermore confirms that the area of proposed development lies outside of the 1 in 1000 year flood extent including an allowance for climate change (shown as Flood Zone 2 in Figure 3-2).

The risk to the proposed development as a result of fluvial flooding is therefore considered to be low.

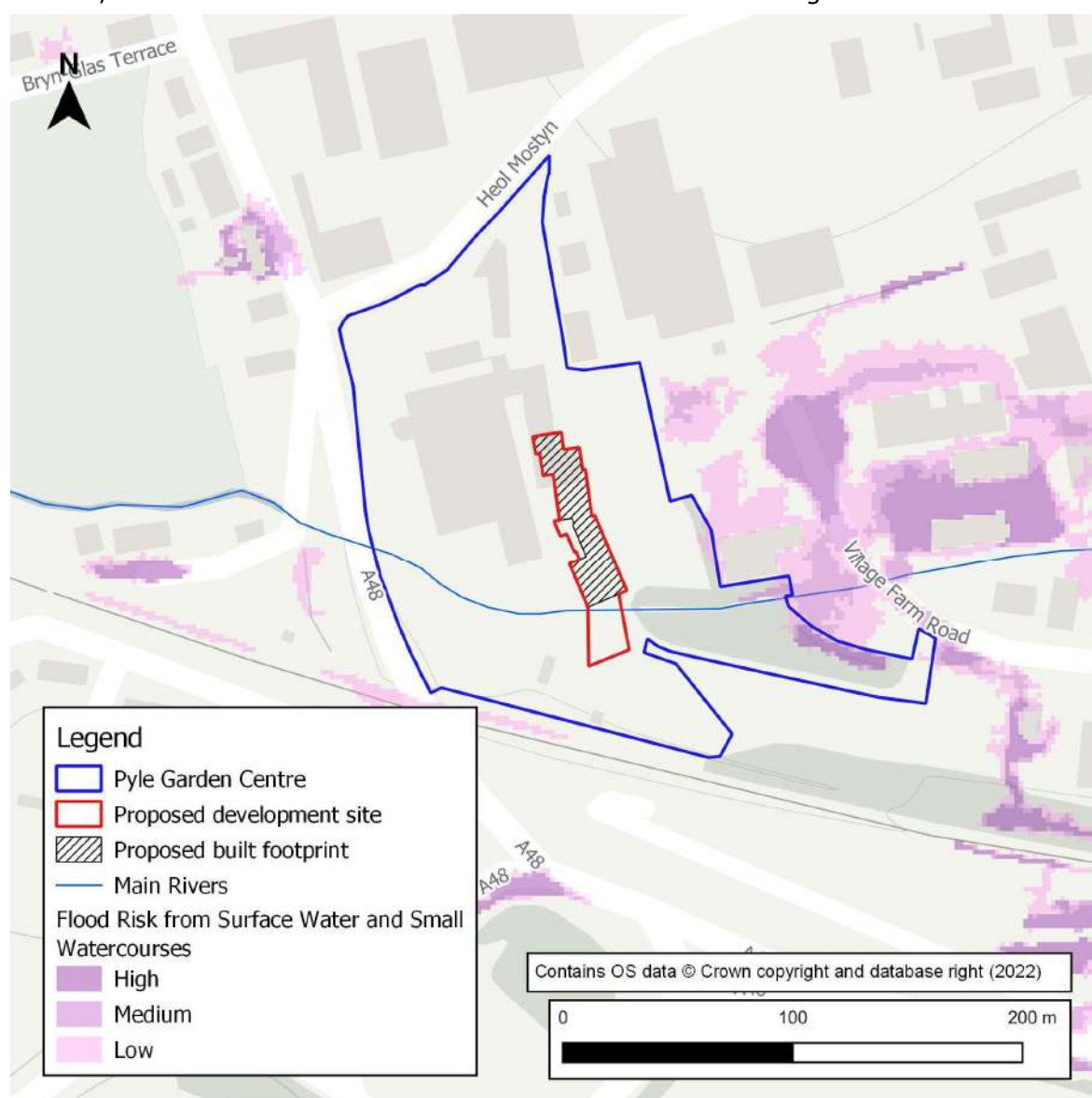
#### 4.5 Risk of flooding from surface water and small watercourses

The NRW FRAW Flood Risk from Surface Water and Small Watercourses map is shown in Figure 4-3 and illustrates that the development area is not within an area considered to be at risk of flooding from surface water or small watercourses.

The Bridgend County Borough Council Strategic Flood Consequence Assessment<sup>6</sup> (SFCA) states that a notable area of high surface water flood risk is located within the Village Farm Industrial Estate to the east of the site. The SFCA attributes this largely to the topography of the industrial estate and the multiple small drains and culverts present.

The SFCA advises that whilst limited areas of surface water flood risk can be managed through the use of Sustainable Drainage Systems (SuDS), new upstream developments should look to incorporate additional elements to contribute to a reduction in downstream flood risk on the Afon Fach, given the flood risk issues at Village Farm Industrial Estate.

Overall, the risk of surface water and small watercourse flooding is low.



**Figure 4-3 Risk of flooding from surface water and small watercourses**

<sup>6</sup> Bridgend County Borough Council, 'Strategic Flood Consequence Assessment, v2', October 2020.

#### **4.6 Risk of flooding from groundwater**

The SFCA states that the majority of Pyle is not at risk of groundwater emergence. Groundwater emergence mapping included within the SFCA indicates that the site is at negligible risk of flooding from groundwater due to the nature of the local geological deposits. Site-specific intrusive investigations have not been undertaken to confirm this. Overall, the risk of groundwater flooding to the proposed development site is considered to be low.

#### **4.7 Risk of flooding from sewers**

The SFCA states that no significant reports of sewer flooding have been recorded in Pyle. Therefore, the risk of flooding from sewers is considered low.

#### **4.8 Risk of flooding from reservoirs**

The NRW FRAW Flood Risk from Reservoirs map indicates that the site is not at risk of flooding from reservoir failure.

## 5 Flood Risk Mitigation

### 5.1 Finished floor levels

As the proposed development is unlikely to be affected by flooding there is no requirement to incorporate freeboard levels into the finished floor levels (FFLs) of the design. However, as a precaution against the residual risk of peak rainfall intensities in excess of the subsurface drainage network, it is recommended that FFLs are raised at least 150mm above surrounding ground levels.

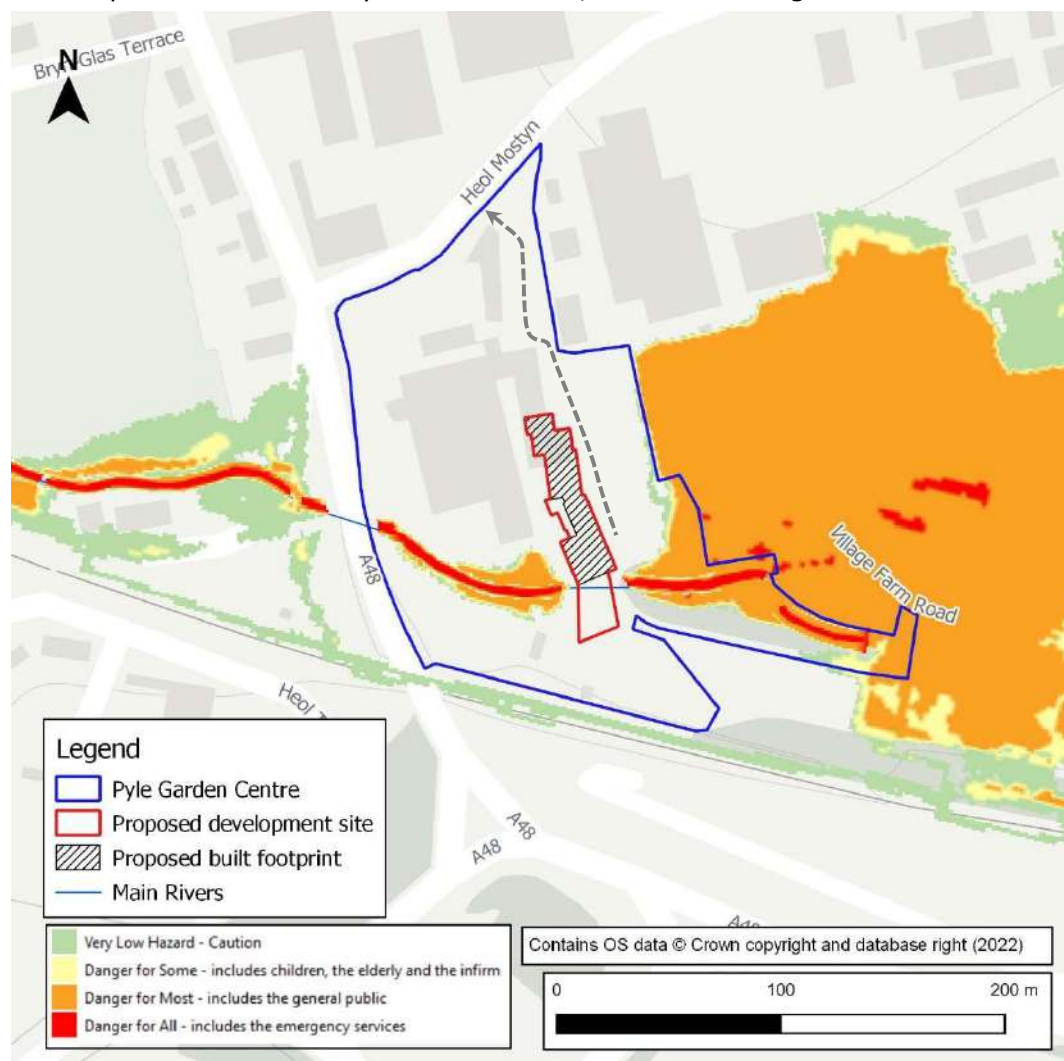
### 5.2 Third party impacts

As no alterations to land elevations will take place in the 1 in 1000 year floodplain. Consequently, no third party flood risk impacts are anticipated.

### 5.3 Emergency access and egress

Whilst the proposed development is shown to be located outside of the fluvial floodplain, some areas of the garden centre's existing car park are shown to fall within the present day 1 in 1000 year flood extent.

Safe and dry access and egress from the proposed development will be provided to the north up to the 1 in 1000 year flood event, as shown in Figure 5-1.



**Figure 5-1 Pyle Hazard Mapping for the 1 in 1000 year flood showing the route of safe access and egress**

## **5.4 Flood Warning and Alert service**

Although safe access and egress will be provided, it would be prudent for the occupiers and management company to register with NRW's flood warning service. The site is located in the 'Rivers Afan and Kenfig' flood alert area. On receipt of a flood alert the unit occupiers and management company will be able to take early actions to prepare for potential flooding of the existing car park which is outside of the proposed development area.

## **5.5 Additional Considerations**

### **5.5.1 Consents**

Works in, over, under or adjacent to Main Rivers requires the consent of NRW to ensure that they neither interfere with NRW's work nor adversely affect the environment, fisheries, wildlife and flood defence in the locality.

Due to the presence of a main river running through and beneath the site, it is likely that NRW will require consent for any works within 8m of the river and may also require specific easements. No works to the river channel or the existing culvert are proposed under this planning application.

Consent of works usually take place post planning, prior to construction. However, the principals of any development within the appropriate easements should be agreed at the planning stage.

## 6 Assessment of Acceptability Criteria

Table 6-1 assesses the proposed development against each of the Acceptability Criteria.

Table 6-1 TAN-15 Acceptability Criteria

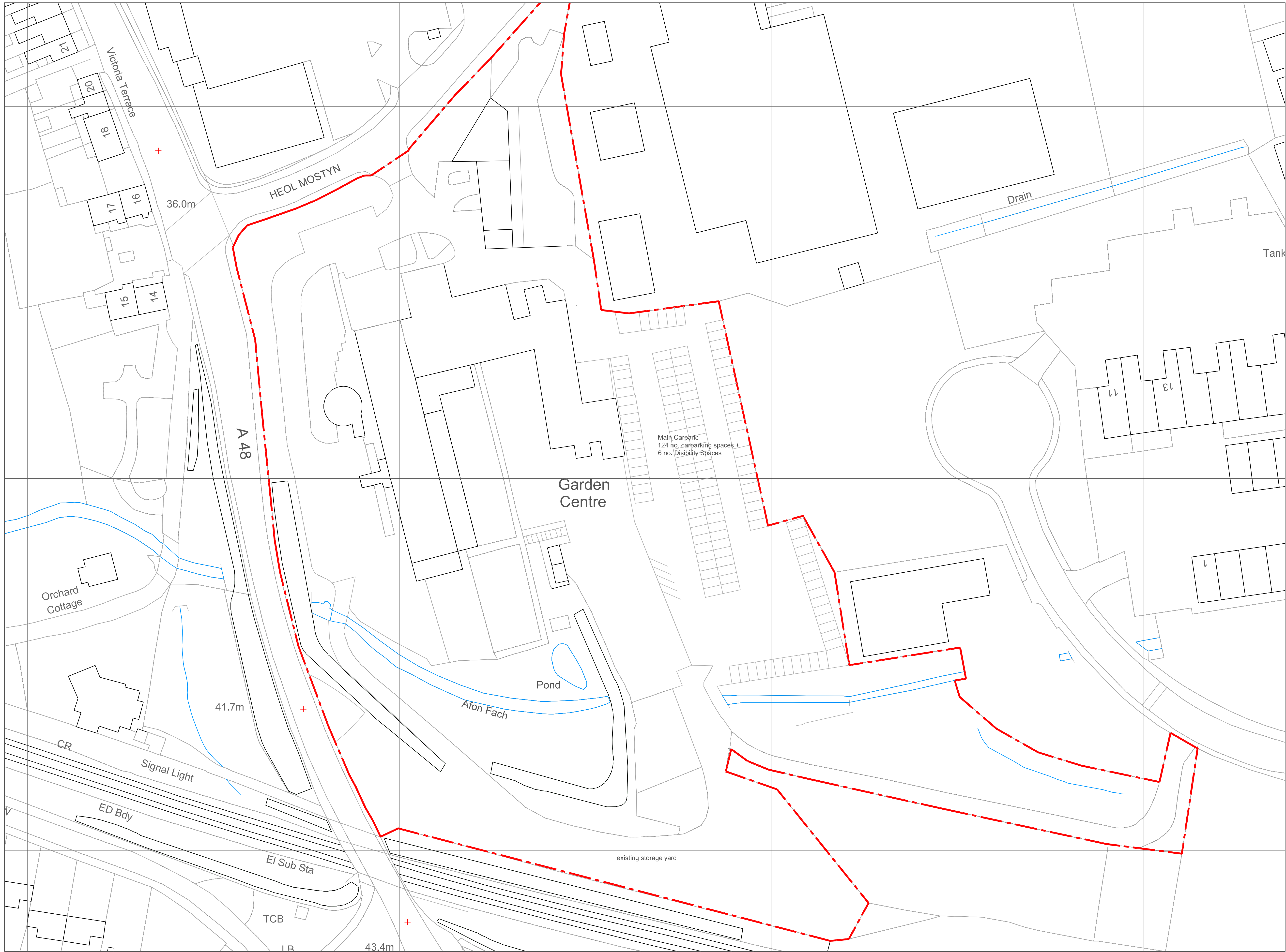
| TAN 15 Acceptability Criteria                                                                                                                                                                                                                                             | Comments                                                                                                                                                                                                                                                       | Satisfied? |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| Developer is required to demonstrate that the site is designed to be flood-free for the lifetime of development for the 1 in 100 chance (fluvial) and 1 in 200 chance (tidal) flood events including allowances for climate change in accordance with TAN-15 Table A1.14. | The site of development is located outside of the 1 in 1000 year fluvial flood extent with an allowance for climate change and is not at risk of tidal flooding.                                                                                               | ✓          |
| In respect of the residual risk to the development it should be designed so that in an extreme (1 in 1000 chance) event there would be less than 600mm of water within the property, the velocity of any water flowing across the development would be less than 0.15m/s. | The site of development is located outside of the 1 in 1000 year fluvial flood extent.<br>As a precaution, FFLs will be raised approximately 150mm above the existing ground level to prevent the potential ingress of surface water during exceedance events. | ✓          |
| No flooding elsewhere.                                                                                                                                                                                                                                                    | The proposed development is shown to be outside of the fluvial and pluvial floodplains and therefore compensation measures are not deemed necessary.                                                                                                           | ✓          |
| Flood defences must be shown by the developer to be structurally adequate particularly under extreme overtopping conditions (i.e. that flood with a 1 in 1000 chance of occurring in any given year).                                                                     | Not applicable. The site does not currently benefit from formal flood defences.                                                                                                                                                                                | ✓          |
| The developer must ensure that future occupiers of the development are aware of the flooding risks and consequences.                                                                                                                                                      | Refer to Sections 5.3 and 5.4.                                                                                                                                                                                                                                 | ✓          |
| Effective flood warnings are provided at the site.                                                                                                                                                                                                                        | Refer to Section 5.4.                                                                                                                                                                                                                                          | ✓          |
| Escape/evacuation routes are shown by the developer to be operational under all conditions.                                                                                                                                                                               | Refer to Section 5.3.                                                                                                                                                                                                                                          | ✓          |

|                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                           |          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <p>The development is designed by the developer to allow the occupier of the facility for rapid movement of goods/possessions to areas away from flood waters.</p>                       | <p>Not applicable. The proposed development lies outside of the 1 in 1000 year flood extent with an allowance for climate change. FFLs will also be nominally raised, meaning the need for rapid movement of goods/possessions to areas away from flood waters has been designed out.</p> | <p>✓</p> |
| <p>Development is designed to minimise structural damage during a flood event and is flood proofed to enable it to be returned to its prime use quickly in the aftermath of a flood.</p> | <p>Not applicable. The proposed development is located outside of the 1 in 1000 year floodplain with an allowance for climate change.</p>                                                                                                                                                 | <p>✓</p> |

## 7 Conclusion and Recommendations

- JBA Consulting were commissioned by Pyle Garden Centre Ltd to prepare a Flood Consequences Assessment (FCA) to support a planning application for four additional retail units at Pyle Garden Centre.
- The development is situated within Zones A and B of the Welsh Government's Development Advice Map (DAM). Zone B covers areas known to have been flooded in the past, evidenced by sedimentary deposits. TAN 15 states that in areas of Zone B, site levels should be checked against the extreme (1 in 1000 year) flood level. If site levels are greater than the extreme flood level, there is no need to consider fluvial/tidal flood risk further, as is the case here.
- As commercial development the proposals are classed as 'less vulnerable development' in accordance with TAN-15.
- The site is at no known risk of groundwater, tidal or reservoir flooding and the risk of surface water and small watercourse flooding is low.
- The south-eastern corner of the wider Pyle Garden Centre site is at risk of fluvial flooding. However, the location of the proposed development lies outside of the 1 in 1000 year flood, including with an allowance for climate change. Existing ground levels in the area of proposed development are at least 980mm above the present day 1 in 1000 year flood level.
- The proposed finished floor level (FFL) of the proposed development will be set approximately 150mm above existing ground levels as a precautionary measure to avoid the potential for surface water ingress.
- This FCA has demonstrated that all aspects of the Justification Test, including acceptability criteria, set out in TAN-15 have been satisfied. Consequently, we conclude that on the grounds of flood risk, the proposed development meets the requirement set out in TAN-15 and the aims of Planning Policy Wales.

## **Appendix A: Existing Site Plan**



block plan

PLANNING  
BLOCK PLAN - EXISTING

DRAWING NO. 2221-P01 / SCALE 1:500 @ A1  
01.07.2022 / REV:

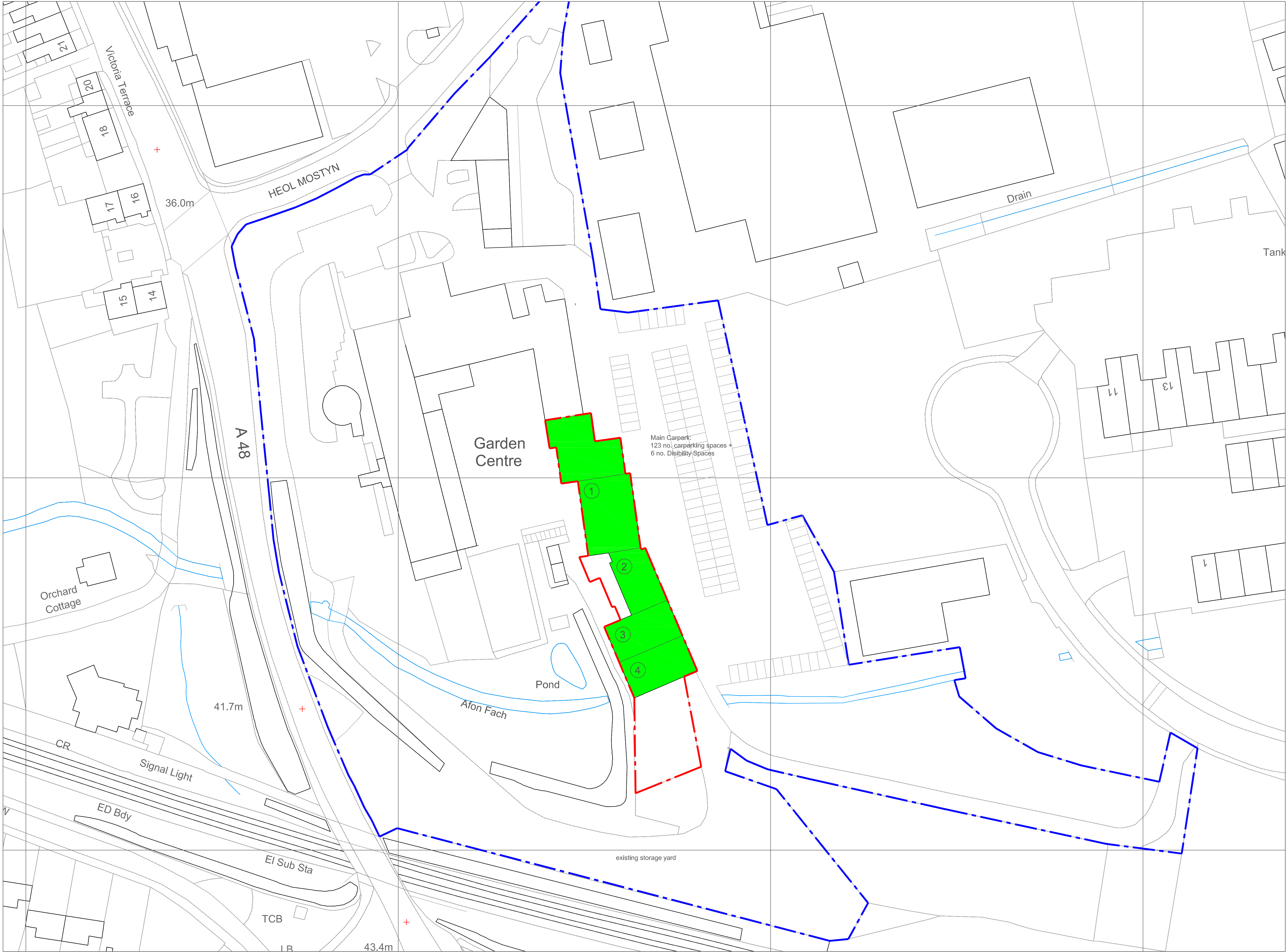
0 5 10

**ARCHITECTURAL DESIGN**  
(SOUTH WALES)

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Technology Drive  
Bridgend  
CF31 3NA

t. 01656 655767 / m. 07886822912  
e. info@ad-sw.co.uk

## **Appendix B: Proposed Site Plan**



block plan

PLANNING  
BLOCK PLAN - PROPOSED

DRAWING NO. **2221-P09** / SCALE 1:500 @ A1  
01.07.2022 / REV: A

0 5 10

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## **Appendix C: Natural Resources Wales Correspondence**

## Sophie Thorpe

---

**From:** Data Distribution <datadistribution@cyfoethnaturiolcymru.gov.uk>  
**Sent:** 04 November 2022 11:25  
**To:** Sophie Thorpe  
**Subject:** ATI-24209a - 2022s1332 - Pyle Garden Centre - request for flood data

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Sophie.

Please find links below for Model Report & Model Outputs of the Pyle\_5\_V1.0\_2012 1D/2D Estry Tuflow model. For security, these links will expire in 30 days.

Model Report

<https://cyfoethnaturiolcymru.sharefile.eu/d-s5d124a6de08d49b7926aa43cd239fd91>

Model Outputs

<https://cyfoethnaturiolcymru.sharefile.eu/d-s3d852d8b022d43d59e7d9a32eb9ebc29>

Please note due to the age of the model and the fact that, since the time of modelling, there is likely to have been changes to the methodology for calculating hydraulic flow or increase rainfall data which may impact the flow estimates applied within the model. Furthermore, hydraulic model software improvements may impact the outputs of the model, e.g. improvements in the way that in channel structures such as bridges and weirs are represented in the hydraulic model. It is likely that hydraulic structures may have changed over time and it is for the end user to ensure the model represent what is currently in place.

Likewise, the climate changed applied within the model will need to be reviewed to ensure it complies with the latest Welsh Government and NRW advice. The model may not include breach/blockage scenarios therefore these will need to be reviewed by the end user.

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Thanks,

Marc Campbell

Swyddog Trwyddedu Data/Data Licencing Officer

Cwsmer, Cyfathrebu a Masnach/ Customer, Communications and Commercial

Cyfoeth Naturiol Cymru/Natural Resources Wales

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Gwefan/Website: <http://www.cyfoethnaturiolcymru.gov.uk/> / [www.naturalresourceswales.gov.uk](http://www.naturalresourceswales.gov.uk)

Ein diben yw sicrhau bod adnoddau naturiol Cymru yn cael eu cynnal, eu gwella a'u defnyddio yn gynaliadwy, yn awr ac yn y dyfodol.

Our purpose is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used, now and in the future.

**Croesewir gohebiaeth yn Gymraeg a byddwn yn ymateb yn Gymraeg, heb i hynny arwain at oedi**

**Correspondence in Welsh is welcomed, and we will respond in Welsh without it leading to a delay**

---

**From:** Sophie Thorpe <[Sophie.Thorpe@jbaconsulting.com](mailto:Sophie.Thorpe@jbaconsulting.com)>  
**Sent:** 27 October 2022 14:21  
**To:** Data Distribution <[datadistribution@cyfoethnaturiolcymru.gov.uk](mailto:datadistribution@cyfoethnaturiolcymru.gov.uk)>  
**Subject:** 2022s1332 - Pyle Garden Centre - request for flood data

Dear Sir or Madam,

Please can I request the most up-to-date flood data along with the appropriate licensing for the following site:

Pyle Garden Centre  
2 Heol Mostyn  
Village Farm Industrial Estate  
Pyle  
Bridgend  
CF33 6BJ

OS Grid ref: 282821, 182014

I have also attached a site location plan.

Please can we obtain flood levels and flows for all available return periods for the watercourses within this area i.e. the tributary to the River Kenfig (Afon Cynffig) that flows through/beneath the site.

Please can you also provide any details of further constraints such as culverts and any historical flood mapping.

If you require any additional information, please do not hesitate to contact me.

Kind regards,

**Sophie Thorpe**  
Analyst | JBA Consulting  
T: 01444 810 913

**JBA Consulting, 35 Perrymount Road, Haywards Heath, West Sussex, RH16 3BW. Telephone: +441444473652**

**Visit our new website at [www.jbaconsulting.com](http://www.jbaconsulting.com).**

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