



14 High Street, Glynneath

Flood Consequence Assessment

Job Number: 1150

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Acronyms	
AOD	Above Ordnance Datum
CIRIA	Construction Industry Research and Information Association
NRW	Natural Resources Wales
FCA	Flood Consequence Assessment
PPW	Planning Policy Wales

Introduction

Flume Consultants have been appointed to undertake a Flood Consequence Assessment (FCA) for the proposed development at the Former Bank on 14 High Street, Glynneath, SA11 5BU.

The purpose of this report is to outline the potential flood risk to the site, the impact of the proposed development on flood risk elsewhere, and the proposed measures which could be incorporated to mitigate any identified flood risk. This report has been prepared in accordance with the guidance contained in Planning Policy Wales (PPW) and Technical Advice Note 15 (TAN 15): Development and Flood Risk. This FCA also incorporates advice and guidance from the Natural Resources Wales (NRW), the Preliminary Flood Risk Assessment (PFRA) produced by Neath Port Talbot County Borough Council and CIRIA documents.

The NRW indicative Development Advice Map (DAM) shows that the site boundary resides in Zone C1: areas of the floodplain which are developed and served by significant infrastructure, including flood defences. Our assessment will therefore focus on the flood risk to the site from watercourses including from overtopping/breach of defences, as well as from other sources.

Site Description and Location

The site is located at the corner of Gellidawel Road and the High Street (A4242), running approximately 0.15km from the main watercourse, the River Neath. The existing development is a developed commercial building once operating as a Bank.

The source of the flood risk is from the River Neath - near the confluence with Nedd Fechan and Mellte, which passes adjacent to the development.

The planning application proposes highly vulnerable development (housing) in the upper floors of an existing building, with less vulnerable development retained on the ground floor. The Flood Risk Map confirms the application site lies partially within Zone C1 of the Development Advice Map as contained in TAN 15 but outside the 0.1% (1 in 1000 year) annual probability fluvial flood outline of the River Neath, a designated main river.

The site postcode is SA11 5BU and the OS grid reference is SN 88012 06489.



FIGURE 1. SITE LOCATION

Development Proposal

The proposed *Change of Use* of a former Bank, to a Caffe on the Ground Floor and 2no. Residential Flats on the upper floors including small extension to the rear (Figure 2).

Pedestrian and Vehicular access from the main road is unaffected.

The development resides within Flood Zone C1, Figure 3.

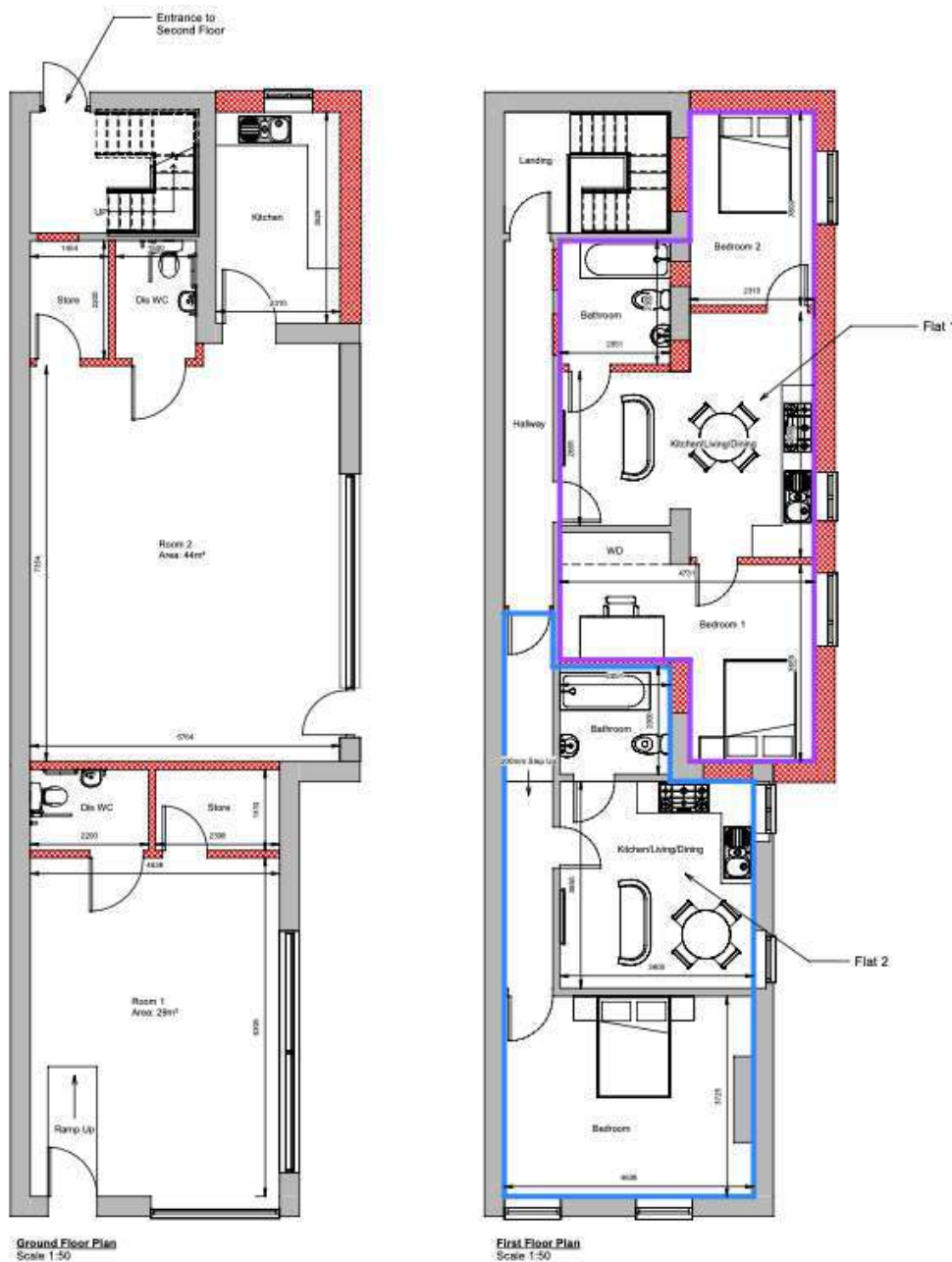


FIGURE 2. PROPOSED DEVELOPMENT

Flood Consequence Assessment

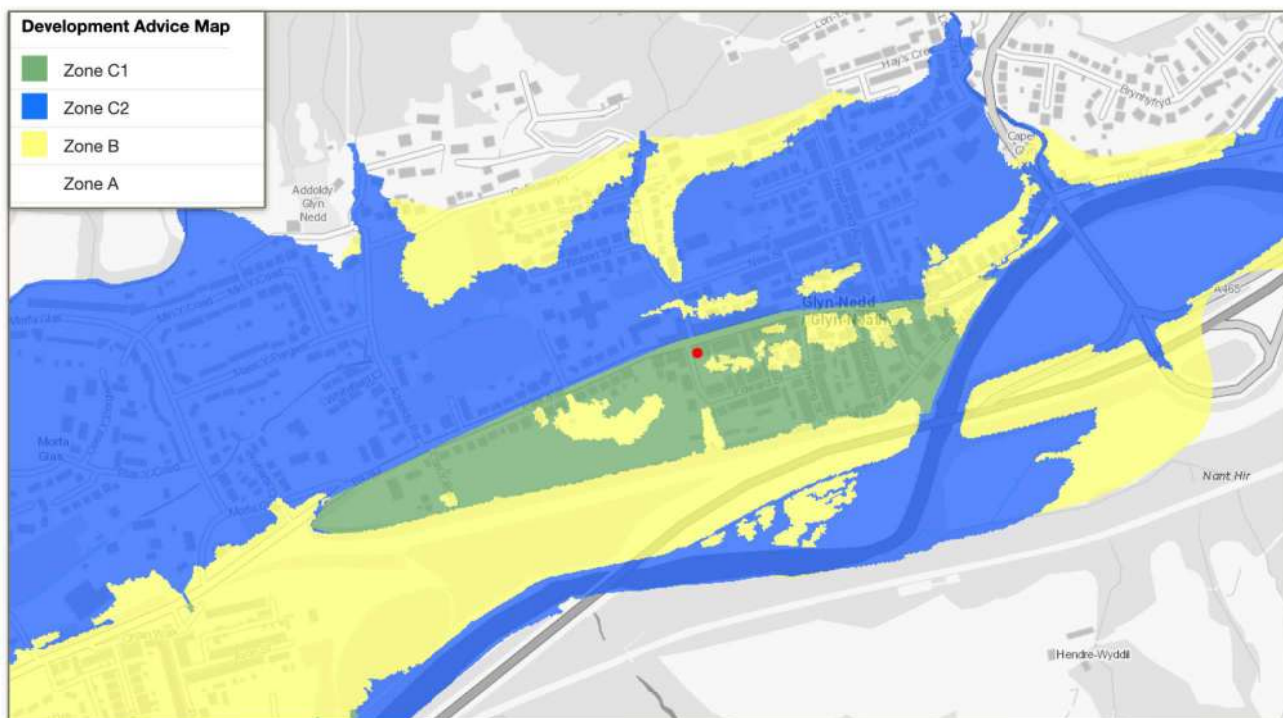


FIGURE 3. NRW DEVELOPMENT ADVICE MAP (CYFOETHNATURIOLCYMRU.GOV.UK, 2022)

The NRW Development Advice Maps indicate that the site lies within Zone C1, comprising land assessed as having a 1 in 1000 year or greater annual probability of river flooding or sea flooding in any year that is served by significant infrastructure including flood defences (Figure 3).

The Development Advice Map (DAM) is for land use planning purposes, and should be used alongside Planning Policy Wales and TAN 15. Together, they form a precautionary framework to guide planning applications in terms of flood risk. The DAM is not designed as a tool for determining site specific flood risk, but as a trigger for policy advice in TAN 15.

Zone	Description of Zone
A	Considered to be at little or no risk of fluvial or tidal/coastal flooding.
B	Areas known to have been flooded in the past evidenced by sedimentary deposits.
C	Based on Environment Agency extreme flood outline, equal to or greater than 0.1% (river, tidal or coastal).
C1	Areas of the floodplain which are developed and served by significant infrastructure, including flood defences.
C2	Areas of the floodplain without significant flood defence infrastructure.

Existing Flood Risk Summary

The risk of flooding to the site from all sources has been summarised in the table below:

Source of Flooding	Impact to Development	Description
Fluvial	✓	The site is at risk of flooding from watercourses.
Tidal	✗	The site is not at risk of flooding from tidal influences from rivers/ sea.
Surface Water	✗	The site is not at risk of surface water flooding.
Reservoirs	✓	The site is at a residual risk of flooding from Reservoirs.
Groundwater	✗	The site is at low risk of flooding from groundwater sources.
Sewers	✗	The site is at a low risk of flooding from sewers.

Flood Risk from Watercourses

The NRW's Flood Risk from Rivers map shows that the site is not in an area at risk of flooding from the River Neath - confluence with Nedd Fechan and Mellte, Figure 4. The NRW's indicative flood risk maps also suggest that the site is located in an area which benefits from flood defences.

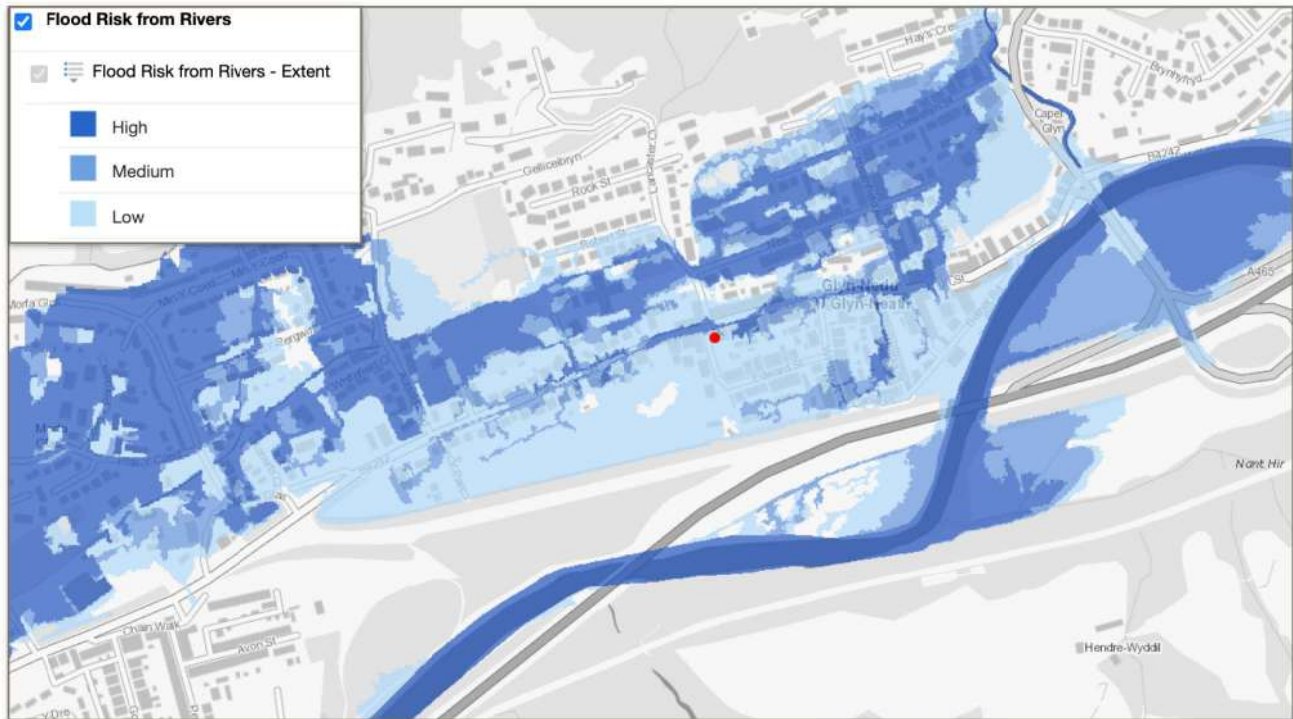


FIGURE 4. NRW FLOOD RISK FROM RIVERS MAP (CYFOETHNATURIOLCYMRU.GOV.UK, 2022)

The NRW Flood Risk Maps show flood risk information in three bands; High, Medium and Low. High risk means that in each given year, there is a chance of flooding of greater than 3.3% (1 in 30 year) from any flood source. For flooding from the Sea, the Medium risk band is between 3.3% (1 in 30 year) and 1% (1 in 100 year), and the Low risk band is between 1% (1 in 100 year) and 0.1% (1 in 1000 year).

The proposed development is at “Low” risk of flooding from rivers. This means that each year, this area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).

However, according to the NRW's *Historic Flood Event Map*, there have been no record of incidences of flooding to the proposed related to watercourses (Figure 5).



FIGURE 5. NRW HISTORIC FLOOD EVENTS (CYFOETHNATURIOLCYMRU.GOV.UK, 2022).

Flood Risk from Groundwater

Groundwater flooding is most likely to occur in low-lying areas underlain by permeable rocks (aquifers). These may be extensive, regional aquifers, or may be localised sands and gravels in valley bottoms underlain by less permeable rocks where there is a good hydraulic connection with a major river. Due to the nature of groundwater flooding, it is difficult to map and model.

British Geological Survey mapping shows the site is underlain by Alluvium - Clay, Silt, Sand and Gravel, which overlies the South Wales Lower Coal Measures Formation - Sandstone. Given the bedrock geology in the area, groundwater could permeate through to the superficial layer. But the superficial deposits are, although variable, of generally mixed permeability which is likely to prevent the migration of large volumes of water to ground level, and hence the potential for groundwater emergence is considered reasonably low.

However, the British Geological Survey's (BGS) *Groundwater Vulnerability Classification Maps* indicate the development is in an area of *Medium vulnerability*, Figure 6 and 7.

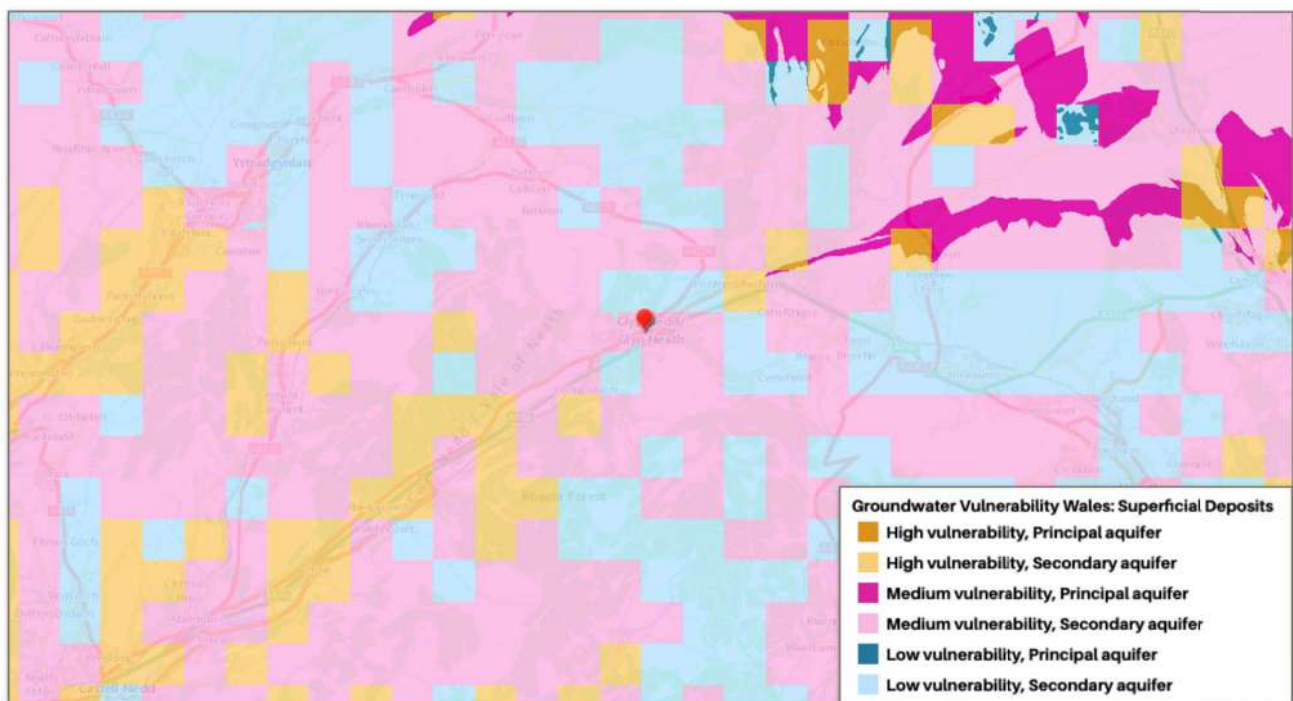


FIGURE 6. GROUNDWATER VULNERABILITY MAP - SUPERFICIAL DEPOSITS (BGS, 2022)

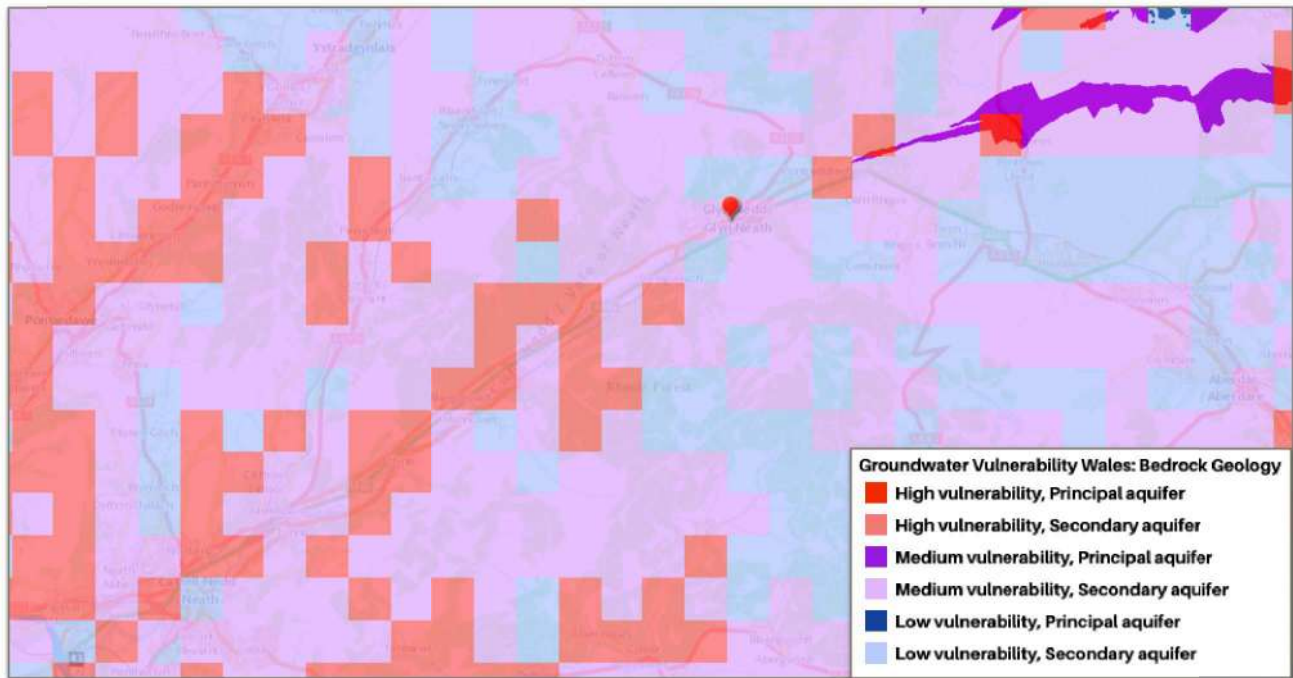


FIGURE 7. GROUNDWATER VULNERABILITY MAP - BEDROCK GEOLOGY (BGS, 2022)

These maps consider very large areas of the underlying geology, and ignore subtle shifts in local geology and ground levels. Groundwater flooding is an important consideration for subterranean basements. However, no basements are proposed in this instance. Proposals will incorporate standard waterproofing techniques and engineered solutions to resist groundwater uplift.

According to the Preliminary Flood Risk Assessment (PFRA), “Groundwater flooding is known to occur in areas underlain by major aquifers, although increasingly it is also being associated with more localised floodplain sands and gravels. There are however no specific areas of historical groundwater flooding recorded in the NPT area”. It goes on further to say Wales has “little need to include groundwater flooding in our models in the same way as we do for river, sea and surface water flooding due to the very low likelihood of occurrence”.

Therefore, the likelihood of groundwater flooding is considered to be low risk.

Flood Risk from Surface Water and Overland Flows

Surface water flooding occurs when intense rainfall is unable to infiltrate into the ground or overwhelms the drainage system. This surface water runs across the surface of the ground causing flooding. Overland flows can also be generated by burst water mains, failed dams and any failure in a system storing or transferring water.

The NRW's indicative Surface Water Flooding Map, Figure 8, shows that the site is not at risk of surface water flooding - although there appears to be very small localised areas of *Low* Surface Water Flood Risk to the rear of the property.

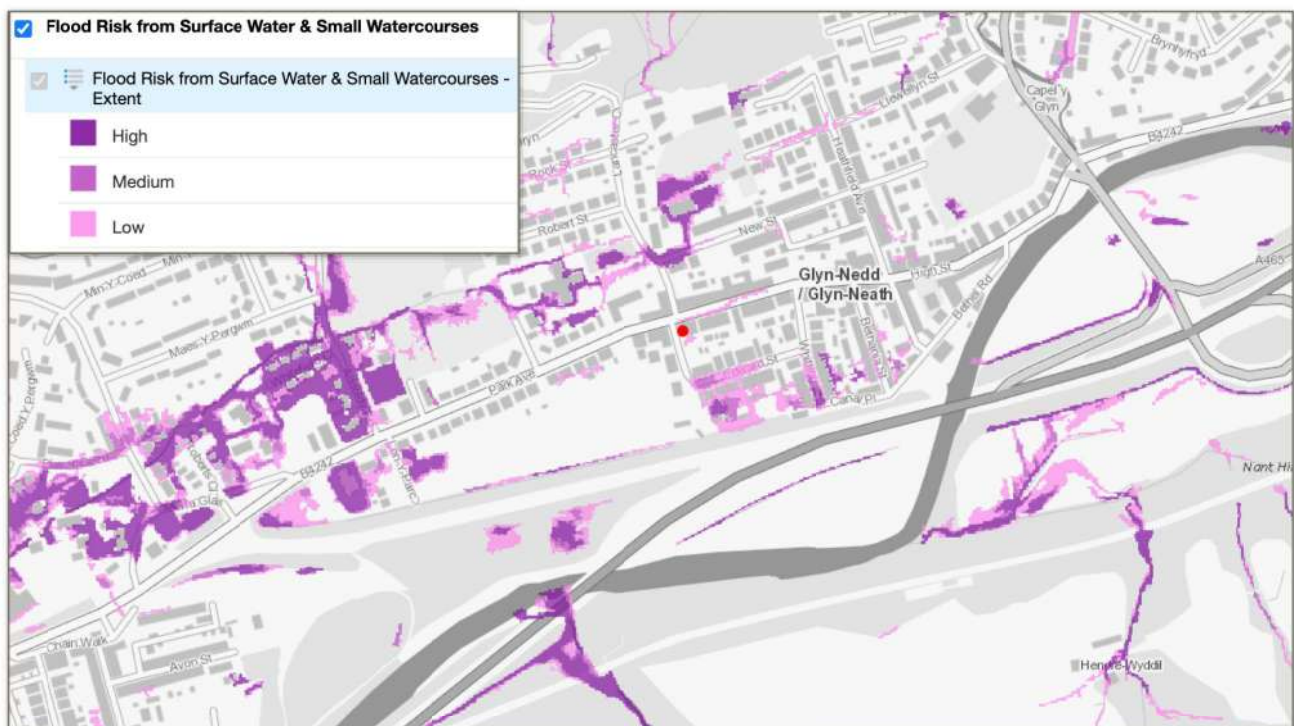


FIGURE 8. NRW FLOOD RISK FROM SURFACE WATER MAP (CYFOETHNATURIOLCYMRU.GOV.UK, 2021)

Therefore, the likelihood of surface water flooding is considered to be low risk.

Flood Risk from Reservoir Failure

The NRW's information states that reservoir flooding is extremely unlikely to happen and there has been no loss of life in the UK from reservoir flooding since 1925. The Reservoir Act of 1975 ensures that reservoirs are inspected regularly and essential safety work is carried out.



FIGURE 9. NRW FLOOD RISK FROM RESERVOIRS MAP (CYFOETHNATURIOLCYMRU.GOV.UK 2021)

Figure 9 shows the site could inundate should a Reservoir Failure occur. However, through strict regulation from the Reservoirs Act (1975 - as amended), flooding from reservoirs has a very low likelihood and it is for this reason that despite the high consequences should a reservoir flood occur, the NRW have not included *“reservoir flooding in the process for identifying FRAs”*.

The low likelihood of such an event and the significant distance from the source to the proposed site means that the overall risk to the site should be considered as low.

Planning Policy and Flood Risk

TAN 15 provides technical guidance to supplement the policy set out in Planning Policy Wales (PPW), in relation to development and flooding. TAN 15 advises on development and flood risk and provides a framework to assess the relevant flood risk from both river and coastal flooding, and from other sources.

The approach of PPW and TAN 15 is to advise caution with respect to new development in areas at high risk of flooding by setting out a precautionary framework to guide planning decisions. The general aim of the precautionary framework (in order of preference), is to:

- I. Direct new development away from those areas which are at high risk of flooding.
- II. Where development has to be considered in high risk areas (Zone C) only those developments which can be justified on the basis of tests (outlined in Sections 6 and 7 of TAN 15), are located within such areas.

Preliminary Flood Risk Assessment

Neath Port Talbot County Borough Council's PFRA (2011) provides a high-level assessment of flood risk issues within the region. This document has been reviewed and key information of relevance to the site has been extracted. The PFRA holds no record of flooding at the site in a century. A list of the last historical flood event in the region is listed below.

Neath Catchment			Consequences
Neath	August 1768	River Neath	Quote from the British Hydrological Society's website "and the torrents poured from the mountains swept away men, women, cattle (and), ruined the crops, and laid under water the little town of Neath".
Neath	September 1909	Unknown	"25year high rainfall - streets were completely flooded, town and much damage was done"
Neath	6 December 1910	Tidal	Observer at Neath noted "Heavy gale in conjunction with a high tide. The lower part of the town was flooded."
Glyn Neath	1911	River Neath	"Great Damage done by floods"

Neath Port Talbot County Borough Council Local Flood Risk Management Strategy

The current Neath Port Talbot County Borough Council's LFRMS was prepared in 2013 and provides advice on flood risk issues within the region. This document has been reviewed and key information of relevance to the site has been extracted.

Vulnerability classification

As flooding consequences may not be acceptable for particular types of development, the precautionary framework identifies the vulnerability of land uses subject to flooding, by sub-dividing land usage in three categories outlined below:

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, commercial and retail development , transport and utilities infrastructure, car parks, mineral extraction sites and associated processing facilities, excluding waste disposal sites.

In accordance with the advice set out in TAN 15, the proposed development is Less vulnerable development on the ground floor, with residential premises (Highly Vulnerable Development) on the upper floors, and therefore the Justification Test must be carried out in line with Section 6 and 7 of TAN 15.

Justification Test

TAN 15 states that development will be justified if it can be demonstrated that:

- I. Its location in Zone C is necessary to assist, or be part of, a local authority regeneration initiative or a local authority strategy required to sustain an existing settlement: **or**
- II. Its location in Zone C is necessary to contribute to key employment objectives supported by the local authority, and other key partners, to sustain an existing settlement or region;
and
- III. It concurs with the aims of Planning Policy Wales and meets the definition of previously developed land;
and,
- IV. The potential consequences of a flooding event for the particular type of development have been considered and found to be acceptable.

The site is a Brownfield development site subject to a *change of use*, and therefore it is considered that the potential benefits of the development outweigh the negative impact in terms of the flood risk.

The proposed development has been assessed against the requirements of the Justification Test with the results summarised in the table below:

TAN 15 Justification Criteria	Comments	Achieved
Its location is necessary to assist or be part of a local authority regeneration initiative or strategy, or contribute to key employment objectives, necessary to sustain an existing settlement or region.	The proposed development of 2no. new residential dwellings located in brownfield land meets Local Development Plan “Strategic Policy SP7 Housing Requirement” and “Policy SC1 Settlement Limits”. The High Street resides within the outline of a Settlement Limit within Glynneath.	✓
The site meets the definition of previously developed land and concurs with the aims of Planning Policy Wales (i.e. the presumption in favour of sustainable development).	The proposal is for the redevelopment / change of use of an existing building, thus meeting the definition of previously developed land.	✓
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.	A detailed flood level assessment using the latest NRW flood model has been undertaken in <i>Detailed Flood Modelling Assessment</i> to demonstrate the acceptability of the proposed development (see <i>Assessment of Acceptability Criteria</i>).	✓

Detailed Flood Modelling Assessment

NRW Hydraulic modelling

To inform this assessment, NRW were contacted to obtain the detailed flood model results. The proposed development has site-specific modelled flood levels for the region. NRW do not provide this information in *Product 4* format anymore. Therefore, Flume have used GIS software to evaluate and interpret the *Product 6* information from NRW. The resulting information is assessed in this chapter.

Advice to planning authorities suggests that development should be designed to be flood free during the 1% fluvial flood (i.e that fluvial flood with a 100 to 1 chance of occurring in any year) and the 0.5% tidal/coastal flood (i.e. 200 to 1 chance in any year event). Therefore, the site therefore complies with sections A1.14 and A1.15 of TAN 15, as demonstrated in the paragraphs below.

TAN 15 accepts that areas will flood during extreme events, and it is considered that overtopping of the flood defences would classify as an extreme event. TAN 15 A1.15 contains indicative acceptability criteria for flood depths and velocities to assess the consequences of such flooding. Only the external areas within the public domain are subject to flooding in the 1 in 100 return period (Figure 10), which meets by default the 600mm depth of flooding permitted in TAN15 A1.15. The development and the associated access/thresholds on the western edge of the development reside within predicted *flood free* areas, up to the 1 in 100 year return period (Figure 10), with 3mm of flooding modelled just along the perimeter to the northern edge of the site. Furthermore, the typical threshold levels from an external area to an internal environment is in the region of 150mm - providing an additional freeboard above the design flood, thereby preventing any floodwater inundating the building.

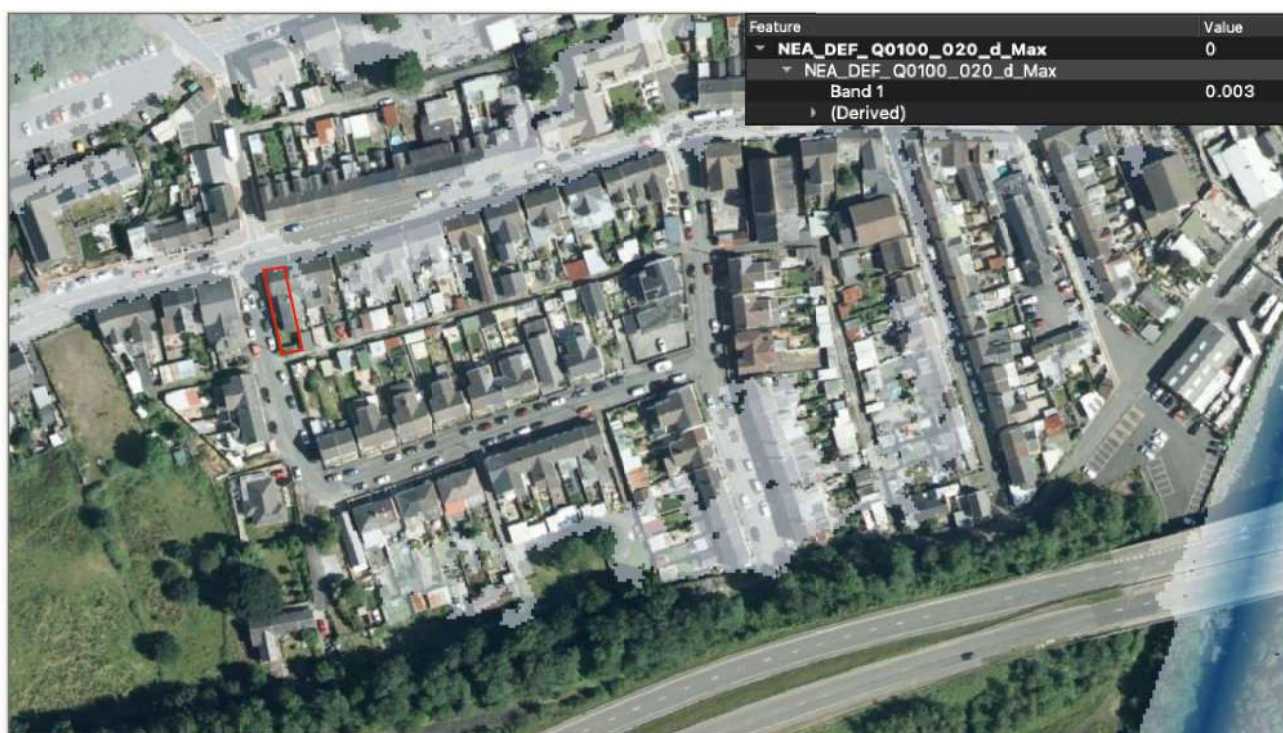


FIGURE 10. 1% AEP MAXIMUM DEPTH MAP - FLUVIAL FLOODING (DEFENDED) (CYFOETHNATURIOLCYMRU.GOV.UK 2021)

Figure 11 shows the maximum flood depth during the modelled 1% AEP event plus an allowance for climate change, which indicates the proposed development site floods to a depth of approximately 8mm from the northern edge. However, this is very much an extreme event, and residential dwellings in the upper floors will be raised significantly higher than this. Furthermore, the 'undefended' scenario was also assessed and found to have the same extents and flood depths as the 'defended' scenario's in Figure 10 and Figure 11. Additionally, fluvial flooding is a predictable event, based on advance weather forecasting. Any extreme flood would therefore be preceded by a flood warning, allowing an evacuation to take place. Residential users will have 'safe refuge' in the upper floors, as will commercial site users on the ground floor. However, an Emergency and Evacuation Procedure will be implemented to respond to this future flood event.

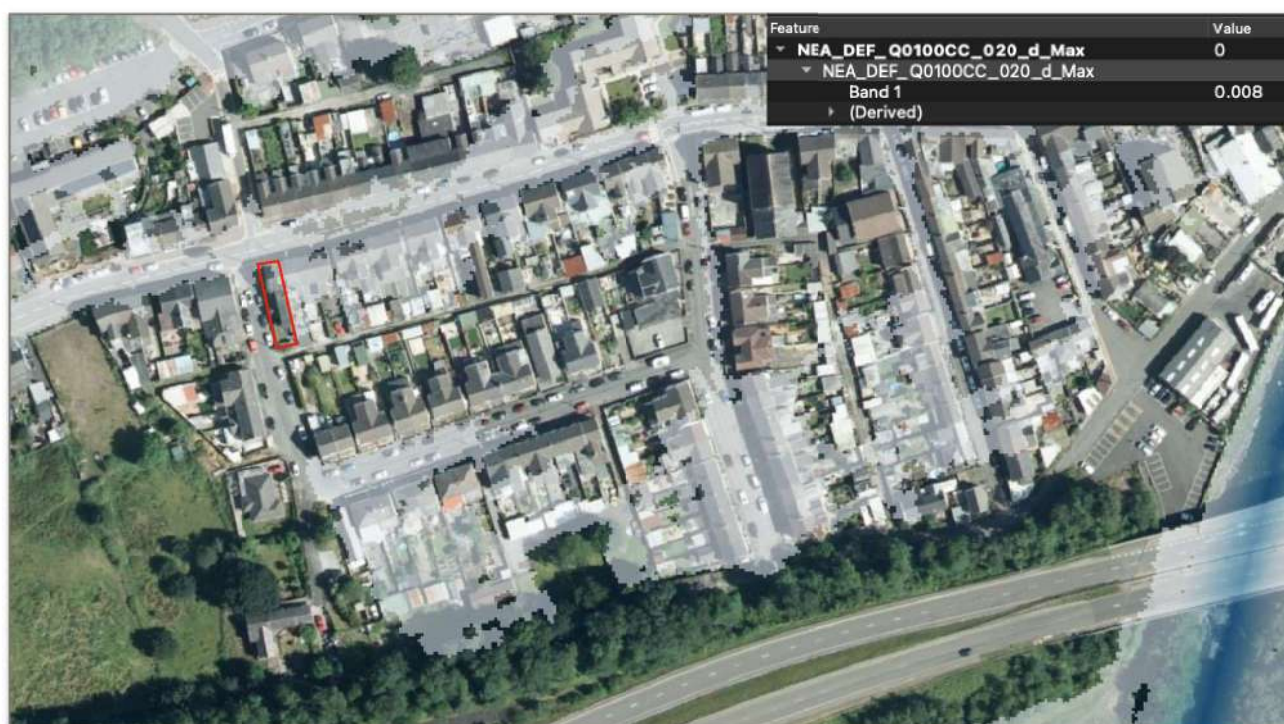


FIGURE 11. 1% AEP PLUS CC MAXIMUM DEPTH MAP - FLUVIAL FLOODING (DEFENDED) (CYFOETHNATURIOLCYMRU.GOV.UK 2021)

Third party flood risk

A requirement of TAN 15 is that any new development should not have any adverse impact on third-party flood risk as a result of the displacement of flood water.

There are no proposals to change ground levels within this part of the proposed development, as such there will be no potential to increase third-party flood risk as a result of the proposed development.

Access and egress

During an extreme flood event, portions of the Gellidawel Road and the High Street (A4242 (including many other main roads) are flooded. As the proposed development is a conversion / change of use, and given the extent of fluvial flooding to the proposed development, it is recommended that residential dwellings maintain safe refuge in the event of an extreme flood event.

In the event of an emergency, safe access and egress for emergency vehicles can be obtained along Gellidawel Road. The majority of this route is a '*Danger for some*' or lower flood hazard. The route passes through a short section of the road where the predicted flood hazard is '*Danger for most*':

Flood depths on Gellidawel Road do not exceed the 600mm recommended threshold for access provided in TAN 15 section A1.15, and will remain passable to emergency vehicles for all return periods up to and including the 0.1% AEP.

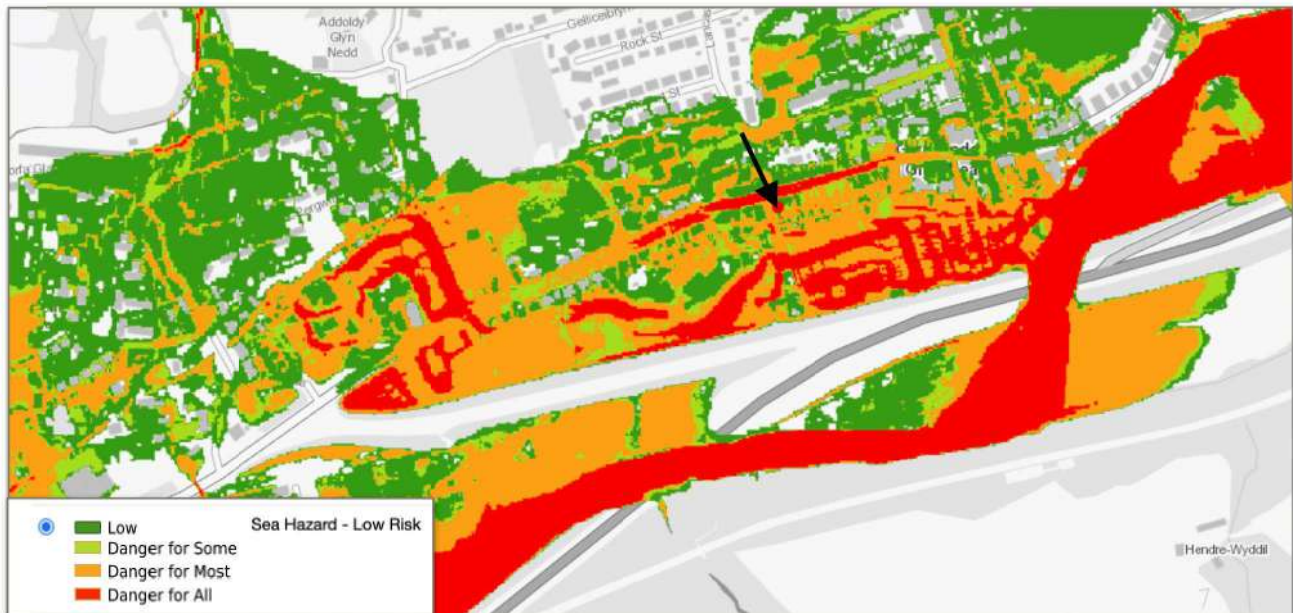


FIGURE 12. 0.1% AEP EVENT MAXIMUM FLOOD HAZARD (CYFOETHNATURIOLCYMRU.GOV.UK 2021)

Assessment of Acceptability Criteria

The table below assesses the proposed development against the acceptability requirements for the development Zone.

TAN 15 Justification Criteria	Comments	Achieved
The developer is required to demonstrate that the site is designed to be flood free for the lifetime of the development for a 1 in 100 (1%) chance (fluvial) flood event including an allowance for climate change and the 0.5% tidal/coastal flood (i.e. 200 to 1 chance in any year event) in accordance with TAN 15: A1.14.	The proposed development does not flood (flood free) during the 1% AEP plus climate change fluvial event (and not subject to tidal flooding) as shown in the supporting detailed hydraulic modelling. Additionally, residential dwellings will be significantly above this flood level.	✓
The development should be designed so that in an extreme event there would be less than 600mm of water on access roads and within the property.	The main access roads to and from the site (Gellidawel Road and the High Street (A4242)) experiences maximum flood depths of approximately 0.600m or less.	✓
No flooding elsewhere.	The proposed development will not result in an increase in third-party flood risk, as ground levels will not be altered within the area subject to flood risk.	✓
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).	TAN 15 provides indicative maximum depths which could be permitted should the development be inundated in an extreme scenario. However, the defended and undefended flood outlines are the same in this instance.	✓
The developer must ensure that future occupiers of development are aware of the flooding risks and consequences	Flood water is only likely to inundate the site boundary edge by a maximum 8mm in the 1% AEP (plus climate change). The typical threshold to all entrances is 150mm. Therefore the ground floor will be suitably protected for potential flooding from watercourses in the future. The developer should ensure future occupiers are made aware of the risk of flooding to the site.	✓
Effective flood warnings are provided at the site	The site is included within the "River Neath" Flood Alert Area.	✓
Escape/evacuation routes are shown by the developer to be operational under all conditions.	In the event of an extreme flood event, safe refuge for residential users should be sought on site. Emergency vehicle access will still be possible, as flooding on the main road is less than 600mm during the 0.1% AEP event.	✓
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.	The proposed development at the site boundary floods to a depth of up to 8mm for the 1% AEP event (plus climate change). The typical threshold to all entrances is 150mm. Therefore, the risk of flood waters entering the building is low.	✓

TAN 15 Justification Criteria	Comments	Achieved
Development is designed to minimise structural damage during a flooding event and is flood proofed to enable it to be returned to its prime use quickly in the aftermath of the flood.	Flood Resilience and Resistance measures will be incorporated where appropriate, as discussed in the <i>Flood Mitigation Measures</i> chapter below.	✓

Flood Mitigation Measures

Section 7.3 of TAN 15 notes that if a development is justified, mitigation measures should be incorporated into the design to make it as safe as possible and that there is:

I. Minimal risk to life;

The proposed development site floods to a depth of up to 8mm for the 1% AEP event (plus an allowance for climate change). The typical threshold to all entrances is 150mm. Therefore, the risk of flood waters entering the building is low. Flood waters are not anticipated to suddenly inundate the site which can be actively managed in accordance with a Flood Action Plan, therefore, the risk to life could be considered minimal.

II. Minimal disruption to people living and working in the area;

As the proposals are for a *change of use*, and the proposals will not displace any flood water elsewhere in the event that the development becomes flooded, the disruption to people living and working in the area would be anticipated to be minimal as a result.

III. Minimal potential damage to property;

The development is predicted to flood in an extreme event by 8mm. The typical threshold levels from an external area to an internal environment is in the region of 150mm. Therefore the ground floor and internal footprint of the building would be protected from flooding. Furthermore, by incorporating resilience and resistance measures up to the extreme flood event, planning for an event in the management and maintenance plans alongside suitable mitigative measures and flood warnings will minimise damage to property.

IV. Minimal impact of the proposed development on flood risk generally;

The application is for a *change of use*, and therefore there will be no impact to flood flows through the development. Furthermore, the new development has the potential to reduce surface water runoff through the use of SuDS features for example.

V. Minimal disruption to natural heritage.

The proposed development is on brownfield land and only subject to a *change of use*. Care should be taken to natural heritage if species of interest have established themselves on site. It is recommended that input is sought from ecologists and landscape architects to minimise disruption to natural heritage.

Although the site is generally considered to be at a low risk of flooding from all sources except fluvial flooding which is likely to be an elevated risk, advice on the reduction of flood risk and flood consequence has been provided for consideration. In particular the contents of the Environment Agency (EA) publications "*Prepare your property for flooding*"¹ and "*Prepare your business for flooding*"² should be considered.

¹ Environment Agency (October 2009). Prepare your property for flooding. Available at: <https://www.gov.uk/government/publications/prepare-your-property-for-flooding>. [Accessed September 2021]

² Environment Agency (March 2015) Prepare your business for flooding. Available at: <https://www.gov.uk/government/publications/preparing-your-business-for-flooding>. [Accessed September 2021]

The developer is committed to ensuring they do everything they can to mitigate any prevalence or residual flood risk. All drainage systems are routinely maintained to reduce the risk of blockage and surface water flood risk. Furthermore, it is proposed flood resilient³ materials will be used for flooring and on the walls up to minimise the potential for damage, in the unlikely event of flood water inundating the building footprint.

Where buildings can be anticipated to be flooded during an event, there may be a benefit in utilising flood resilient construction methods to reduce damage to the interior and decrease the amount of time taken for usage of the building to return to normal. Based on the recommendations of the Communities and Local Government publication *"Improving the Flood Performance of New Buildings"*, it is proposed that during the internal fit out of the building a cast in-situ reinforced concrete slab will be incorporated, without a sub-floor void or insulation (although a ventilating layer may be required for ground gas dispersion). A full proprietary gas protection barrier is required, which beneath the slab will exceed the performance of a normal damp-proof membrane.

The external ground levels immediately outside the building should be designed to fall away from the building thresholds, ensuring the minimisation of storm water ingress. Channel drainage along the building thresholds at the entrance is also encouraged to positively drain overland flows.

A site-specific Flood Action Plan will be developed. This will include clear responsibilities and chain of command including procedures for confirming actions and coping with absences. It will provide due consideration to Evacuation and Safe Refuge procedures. A welcome pack and warning notices also should describe the flood risk and any flood access constraints. All parties responsible for the site, along with residents, business or employees should sign up to flood warnings direct.

³ Bowker P, 2007. *Improving the Flood Performance of New Buildings: Flood Resilient Construction*. London: DEFRA

Conclusions

The FCA has demonstrated that the proposed development has an acceptable flood risk within the terms and requirements of TAN15 and accompanying technical guidance.

The site is considered to be at a low risk of flooding from all sources except fluvial and reservoir flooding.

Residential dwellings will be elevated above the flood risk and there is no change in vulnerability use at the ground floor level. The application is for a change of use, with no increase in impermeable area. In addition to the risk of flooding which remains unchanged, the development allows the awareness of flood risk to be raised to the occupiers that will assist in reducing the flood risk posed.

The proposed development will not result in an increase in third-party flood risk.

An assessment of the acceptability criteria has been undertaken, with all aspects found to be satisfied for the site.

It is concluded that on the grounds of flood risk, the proposed development site is compliant with Planning Policy Wales and TAN 15, meeting the requirements of the acceptability of the consequences.

Note:

This report has been prepared for the purposes of issuing to the respective approving authorities, including Natural Resources Wales in relation to the associated flood risk, and uses the most up-to-date information available to us at the time. It should not be relied upon by anyone else or used for any other purpose. This report is confidential to our Client; it should only be shown to others with their permission. We retain copyright of this report which should only be reproduced with our permission.

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