



Ty Derwen, Church Road, Newport NP19 7EJ

Flood Consequence Assessment

Job Number: 1397

Date	Version	Notes/Amendments
December 2023	1	Issued for Information
May 2025	2	Updated in line with new TAN 15

Contents**Page**

Executive Summary	2
Introduction	3
Site Description and Location	4
Development Proposal	5
Flood Consequence Assessment	7
Existing Flood Risk Summary	8
Planning Policy and Flood Risk	9
Flood Risk from Watercourses	11
Flood Risk from Groundwater	12
Flood Risk from Surface Water and Overland Flows	14
Flood Risk from Reservoir Failure	15
Detailed Flood Risk Assessment	16
Third party flood risk	18
Access and Egress	19
Flood Response and Evacuation Plan	20
Approach to Flood Risk from Change of Use Conversion	21
Flood Mitigation Measures	22
Conclusions	23
Appendix A - Architectural Drawings	25

Figure 1. Site Location

Figure 2. Development Proposal

Figure 3. Vulnerability classification

Figure 4. NRW Flood Risk from Rivers or Sea Map (flood-map-for-planning.naturalresources.wales, 2025)

Figure 5. Groundwater Vulnerability Map - Superficial Deposits (BGS, 2025)

Figure 6. Groundwater Vulnerability Map - Bedrock Geology (BGS, 2025)

Figure 7. Flood Risk from Surface Water and Small Watercourses Map (flood-map-for-planning.naturalresources.wales, 2025)

Figure 8. NRW Flood Risk from Reservoirs Map (flood-map-for-planning.naturalresources.wales, 2025)

Figure 9. Newport_5_V8.0_2022 - 1 in 200 Year Fluvial Flood Level (mAOD) - Defended 2121 Epoch

Figure 10. Newport_5_V8.0_2022 - 1 in 200 Year Tidal Flood Depths - Undefended 2121 Epoch

Acronyms	
AOD	Above Ordnance Datum
NRW	Natural Resources Wales
FCA	Flood Consequence Assessment
PPW	Planning Policy Wales

Executive Summary

This Flood Consequence Assessment (FCA) supports a planning application for the conversion of an existing disused building at Ty Derwen, Church Road, Newport, NP19 7EJ. The site lies within Flood Zone 3 (Rivers and Sea) on the Flood Map for Planning and falls within a TAN15 Defended Zone.

The proposals have been assessed against TAN15 (March 2025) and are fully compliant. All residential accommodation, including communal areas, will be located on the first floor only, well above the modelled 0.1% AEP tidal flood level with climate change. The ground floor will be used solely for non-residential purposes, with no sleeping or habitable rooms.

Modelled flood depths along Church Road exceed the tolerable thresholds set out in TAN15 Figure 6 for safe access, with depths of up to 1.5 m predicted in the defended 0.1% AEP tidal scenario to 2115. In accordance with TAN15 Section 11.4, a permanent, dry, and accessible refuge is provided at first floor level, which remains flood-free during all predicted events including breach scenarios. This satisfies the policy requirement for life safety in defended areas where safe access cannot be maintained.

The development incorporates appropriate resilient construction and will include flood-resistant doors to the front and flood gates to the rear, which serve to reduce water ingress during design events but are not relied upon for life safety. A Flood Response and Evacuation Plan will also be implemented.

There will be no increase in flood risk elsewhere, no ground raising, and the proposals do not require referral under Circular 002/2025. The development satisfies the relevant policy tests for highly vulnerable development in defended flood zones and is supported in full from a flood risk perspective.

The development has been assessed against the March 2025 edition of TAN15, including relevant thresholds in Sections 6, 11, and 13, and is considered to meet the flood risk management and safety objectives in full.

Introduction

Flume Consulting Engineers have been appointed to undertake a Flood Consequence Assessment (FCA) in support of a planning application for the proposed conversion of an existing disused building to residential use at Ty Derwen, Church Road, Newport NP19 7EJ.

The purpose of this report is to assess the potential flood risk to the site, the impact of the development on flood risk elsewhere, and the proposed mitigation measures to ensure compliance with current national planning policy and technical guidance. This report has been prepared in accordance with the March 2025 version of Technical Advice Note 15 (TAN15): Development, Flooding and Coastal Erosion, Planning Policy Wales (Edition 12), and associated guidance including the 2025 Flood Risk Area Development Notification Direction (Circular 002/2025).

The Flood Map for Planning (FMP), published by Natural Resources Wales (NRW), shows that the site lies within Flood Zone 3 (Rivers and Sea) and benefits from formal flood defences. The site is therefore considered to be within a TAN15 Defended Zone, and the primary flood risk to the site arises from tidal flooding associated with the nearby River Usk.

As the proposal involves a change of use of a building on previously developed land, the development is exempt from ministerial notification under Circular 002/2025. Nevertheless, as the proposal constitutes highly vulnerable development (HVD), a site-specific FCA is required to assess the full range of flood risks, including future climate change scenarios, and to demonstrate that the development satisfies the relevant justification and acceptability criteria set out in TAN15.

This assessment has been informed by NRW's latest modelled data for the Newport_5_V8.0_2022 model, incorporating climate change allowances to the 2115 epoch. Flood mitigation measures have been embedded in the design, including raised floor levels and provision of a safe refuge above the 0.1% AEP tidal flood level with climate change.

Site Description and Location

The proposed development site is situated adjacent to Church Road in Newport. It is bordered by Church Road to the south, and the River Usk, located approximately 500 meters west of the site's boundary.

The source of flooding is from the Afon Wysg / River Usk which passes adjacent to the development.

The Flood Risk Map confirms the application site lies within Zone C1 of the Development Advice Map as contained in TAN 15.

The nearest site postcode is NP19 7EJ and the OS grid reference is ST 31908 88686.

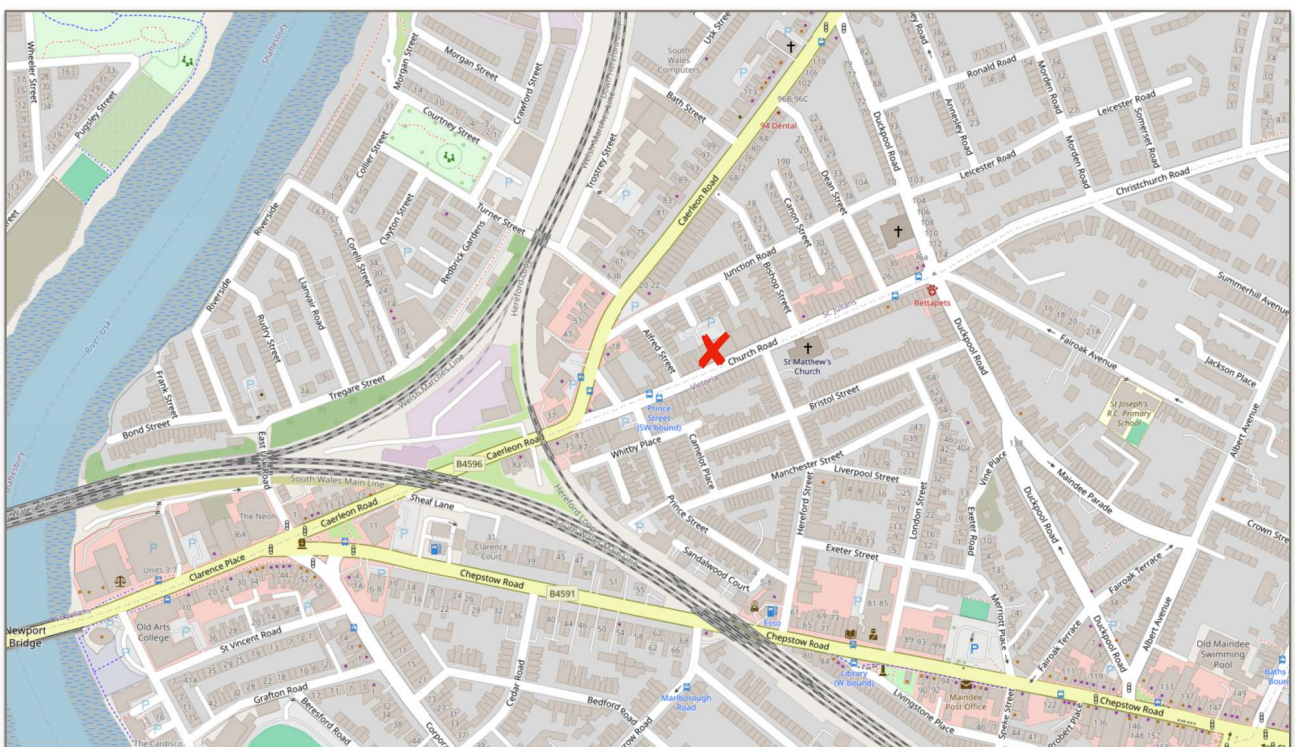


FIGURE 1. SITE LOCATION

Development Proposal

The proposals involve the conversion of an existing disused building at Ty Derwen, Church Road, Newport, NP19 7EJ to provide mixed-use accommodation comprising commercial use at ground floor level and residential use on the first floor. The site lies within a defended tidal floodplain and is located within Flood Zone 3 (Rivers and Sea) on the Flood Map for Planning.

The ground floor will be entirely non-residential and is expected to accommodate commercial use and services only. There will be no sleeping or habitable rooms at ground floor level, consistent with the recommendations in TAN15 (2025) for highly vulnerable development in flood risk areas.

All residential accommodation, including bedrooms, communal areas and the primary refuge space, will be located on the first floor, with finished floor levels set at approximately 9.68m AOD. This is above the modelled 0.1% AEP tidal flood level with climate change, including in the event of a breach or failure of defences. The building layout will ensure that refuge can be maintained during a flood event, with all primary residential functions remaining accessible, dry and usable.

Additional flood mitigation measures include the use of resilient construction materials at ground floor level and flood-resistant doors will be installed at front entrances, with flood gates provided to the rear access points to help slow water ingress during standard design events. While these are not relied upon for primary protection, they provide an added level of resistance. The principal life safety strategy remains internal refuge at first floor level, which is consistent with the guidance in TAN15 (2025), Section 11.4 and Figure 6, allowing for refuge-based solutions where access routes exceed tolerable flood conditions in defended areas.



FIGURE 2. DEVELOPMENT PROPOSAL

Flood Consequence Assessment

Development proposals in areas of flood risk must consider the full range of flood sources, climate change allowances, and the vulnerability classification of the proposed use. In accordance with Technical Advice Note 15 (TAN15): Development, Flooding and Coastal Erosion (March 2025), the site has been assessed as lying within Flood Zone 3 (Rivers and Sea) on the Flood Map for Planning, with a residual risk of tidal flooding despite benefiting from formal defences. The site is therefore categorised as a TAN15 Defended Zone.

The proposed development involves the conversion of an existing building on previously developed land. The ground floor will be used solely for commercial or non-residential purposes, while all residential accommodation, including communal areas, will be located at first floor level, above the predicted extreme tidal flood levels.

This type of change-of-use proposal is addressed directly in TAN15, Section 10.23, which confirms that conversion schemes may be considered acceptable in defended areas where the consequences of flooding can be appropriately managed. The primary mitigation measure in this case is the provision of safe refuge above the 0.1% AEP flood level with climate change, which meets the requirements of Section 11.4 and Figure 6 of the TAN. These provisions allow for refuge-led safety strategies where access routes exceed tolerable thresholds, provided that the refuge is permanent, dry, and accessible throughout the duration of any flood event.

This FCA has been prepared using NRW Product 6 data from the Newport_5_V8.0_2022 tidal model, incorporating both central and upper-end climate change allowances to the year 2115. It demonstrates that, although parts of Church Road may be inundated during extreme events, the development layout and design will ensure that residential users can remain safe at all times through the provision of permanent, flood-free refuge at first floor level.

Existing Flood Risk Summary

The risk of flooding to the site from all sources has been assessed in accordance with Technical Advice Note 15 (2025) and associated guidance. The site lies within Flood Zone 3 on the Flood Map for Planning (FMP), published by Natural Resources Wales. The primary source of flood risk is tidal flooding from the River Usk, with the site benefiting from formal flood defences.

Residual risks remain in the event of defence overtopping or breach, particularly under future climate change scenarios. Other sources of flooding, including fluvial, groundwater, surface water, and reservoir failure, have also been assessed and are considered to present a low risk to the site based on the best available data.

A summary of flood risk from all sources is presented in the following table.

Source of Flooding	Impact to Development	Description
Fluvial	X	The site is not at risk of river flooding.
Sea	✓ (Defended)	Although the FRAW map indicates a very low risk of tidal flooding, the FMP confirms that the site is in Flood Zone 3 with a residual tidal flood risk when applying climate change allowances.
Surface Water	X	The building resides just outside of any regions of Surface Water flood risk.
Reservoirs	✓	The site could inundate should a Reservoir Failure occur.
Groundwater	X	The site is at low risk of flooding from groundwater sources.
Sewers	X	The site is at a low risk of flooding from sewers.

Planning Policy and Flood Risk

Technical Advice Note 15 (TAN15): Development, Flooding and Coastal Erosion (March 2025) provides technical guidance to supplement the policies set out in Planning Policy Wales (Edition 12) in relation to flood risk and coastal erosion. TAN15 establishes a risk-based framework to support decision making on development in areas at risk of flooding, including from rivers, the sea, surface water, and other sources.

The approach of TAN15 is to steer highly vulnerable development (HVD), such as residential use, away from Flood Zone 3 where possible, while recognising that some development on previously developed land may be permissible by exception. Where HVD is proposed in areas shown to be at risk on the Flood Map for Planning, it must pass the Justification Test and demonstrate that the consequences of flooding are acceptable, taking into account climate change over the lifetime of the development.

In accordance with Figure 4 of TAN15, the proposed change of use to residential use is classified as highly vulnerable development. As the site lies within Flood Zone 3 (Rivers and Sea) but benefits from formal defences, it falls within a TAN15 Defended Zone, where additional flexibility is permitted provided that safe refuge, resilient design, and site-specific flood risk analysis are demonstrated.

The Flood Risk Area Development Notification Direction 2025 (Circular 002/2025) sets out categories of development which must be referred to the Welsh Ministers. This proposal does not require referral, as it relates to the conversion of an existing building on previously developed land, with no net increase in dwellings on an undeveloped floodplain.

The FCA therefore proceeds to assess the justification for the development and the acceptability of its flood risk consequences in line with the 2025 guidance.

Preliminary Flood Risk Assessment

Newport City Council's PFRA (2011) provides a high-level assessment of flood risk issues within the Newport 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.

Newport City Council Local Flood Risk Management Strategy

The current Newport City Council's LFRMS was prepared in 2014 and provides advice on flood risk issues within Newport. This document has been reviewed and key information of relevance to the site has been extracted.

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.

FIGURE 3. VULNERABILITY CLASSIFICATION

Flood Risk from Watercourses

The NRW's Flood Risk from Rivers map shows that the site is located in an area at risk of flooding from the River Usk. NRW's Flood Risk Assessment Wales (FRAW) flood mapping indicates that almost all of the site is located within a low risk area of flooding from Sea. NRW's Flood Map for Planning (FMfP) fluvial/tidal flood risk maps, Figure 4, confirm that the site is located in Flood Zone 3, but resides in an area which benefits from flood defences.

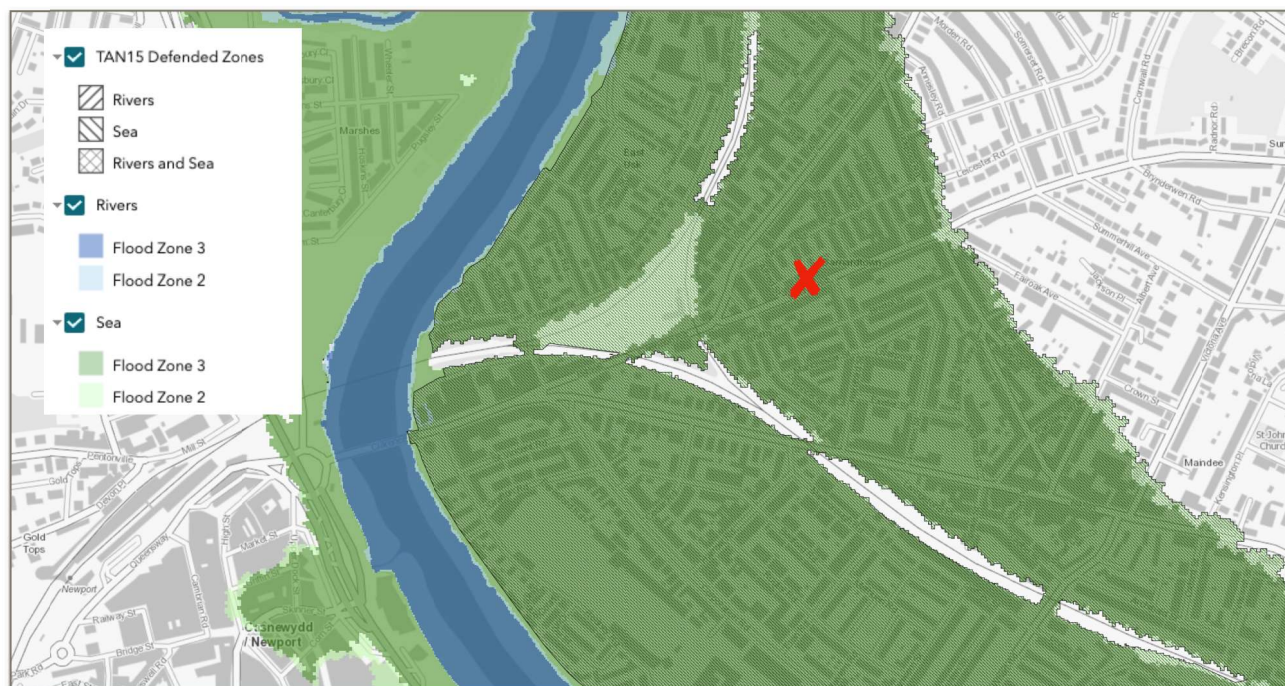


FIGURE 4. NRW FLOOD RISK FROM RIVERS OR SEA MAP (FLOOD-MAP-FOR-PLANNING.NATURALRESOURCES.WALES, 2025)

Although the “*Flood Map for Planning*” has no official status for planning purposes until its implementation, according to the NRW website, this data may be used as the ‘*best available information*’ on flood risk to inform planning advice. According to this map (Figure 4), the development resides in a defended region of Flood Zone 3 from Sea.

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 St Maughans Formation - Sandstone. Superficial deposits of Tidal Flat Deposits of Clay and Silt were recorded near the site. Given the geology in the area, groundwater could permeate through to the superficial layer.

The British Geological Survey's (BGS) *Groundwater Vulnerability Classification Maps* indicate the development is in an area of *High vulnerability*, Figure 5 and 6.

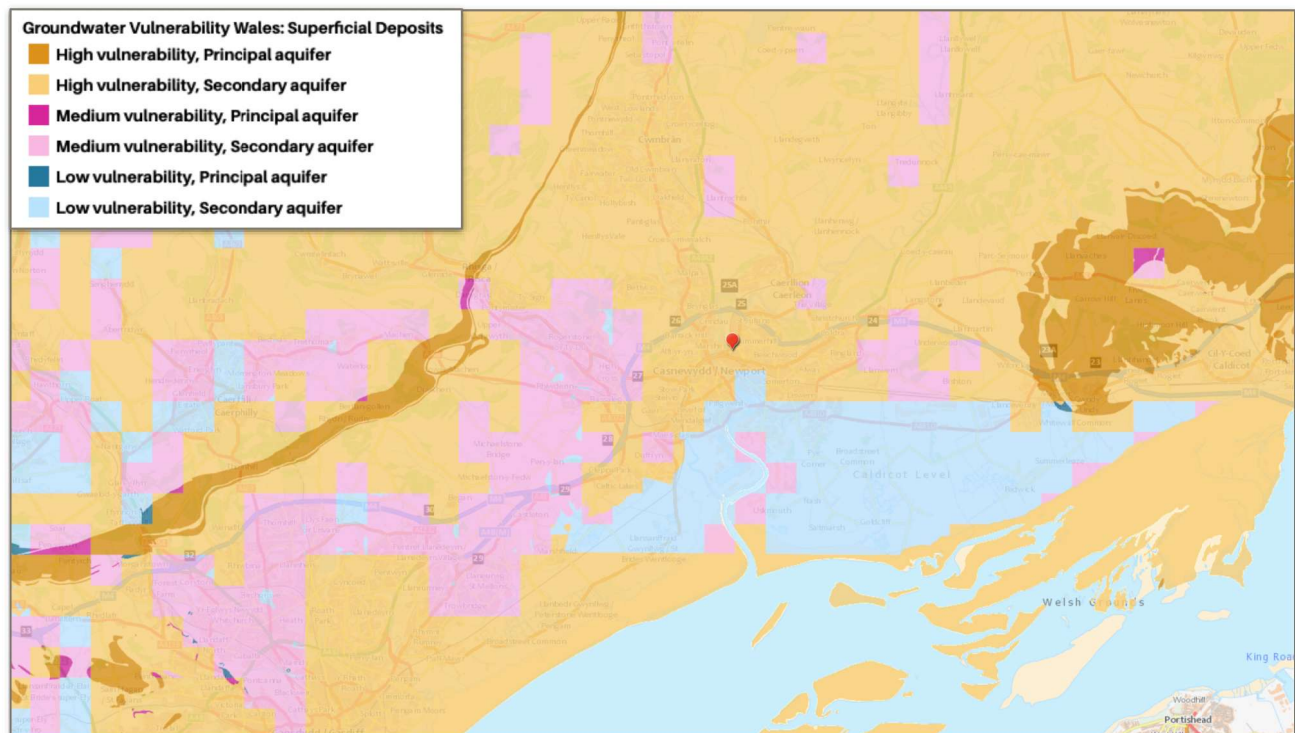


FIGURE 5. GROUNDWATER VULNERABILITY MAP - SUPERFICIAL DEPOSITS (BGS, 2025)

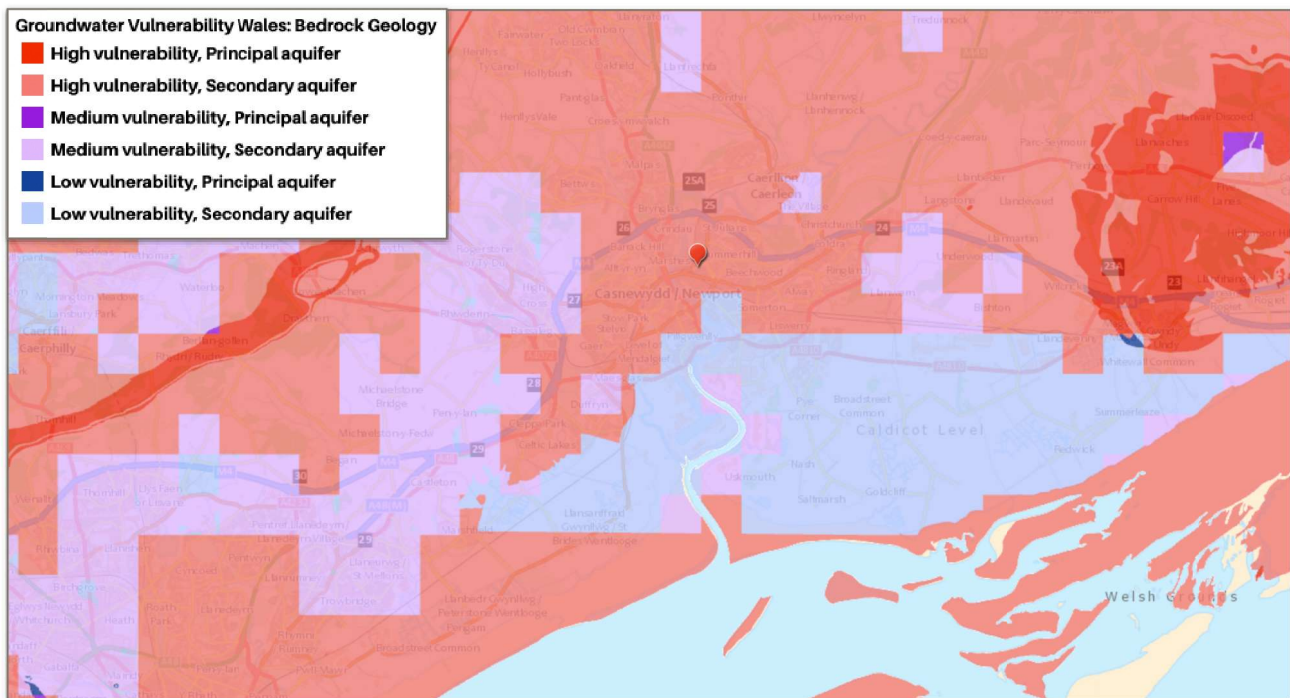


FIGURE 6. GROUNDWATER VULNERABILITY MAP - BEDROCK GEOLOGY (BGS, 2025)

However, 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, the proposed development will be designed to tolerate seasonal groundwater variation through suitable foundation detailing and low-permeability construction.

According to the Preliminary Flood Risk Assessment (PFRA), “*The Environment Agency Wales have previously stated that the risk of groundwater flooding in Wales is not a major issue, and where groundwater flooding occurs, it is confined to a very local scale. CCC will investigate this further with the aim of clarifying the source of flooding*”.

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 7, shows that the location of the existing building subject to development is not at risk of surface water flooding. There are a number of regions outside this location which resides in Surface Water Flood Zone 2, but would be well outside the areas of development and levels remain unchanged.

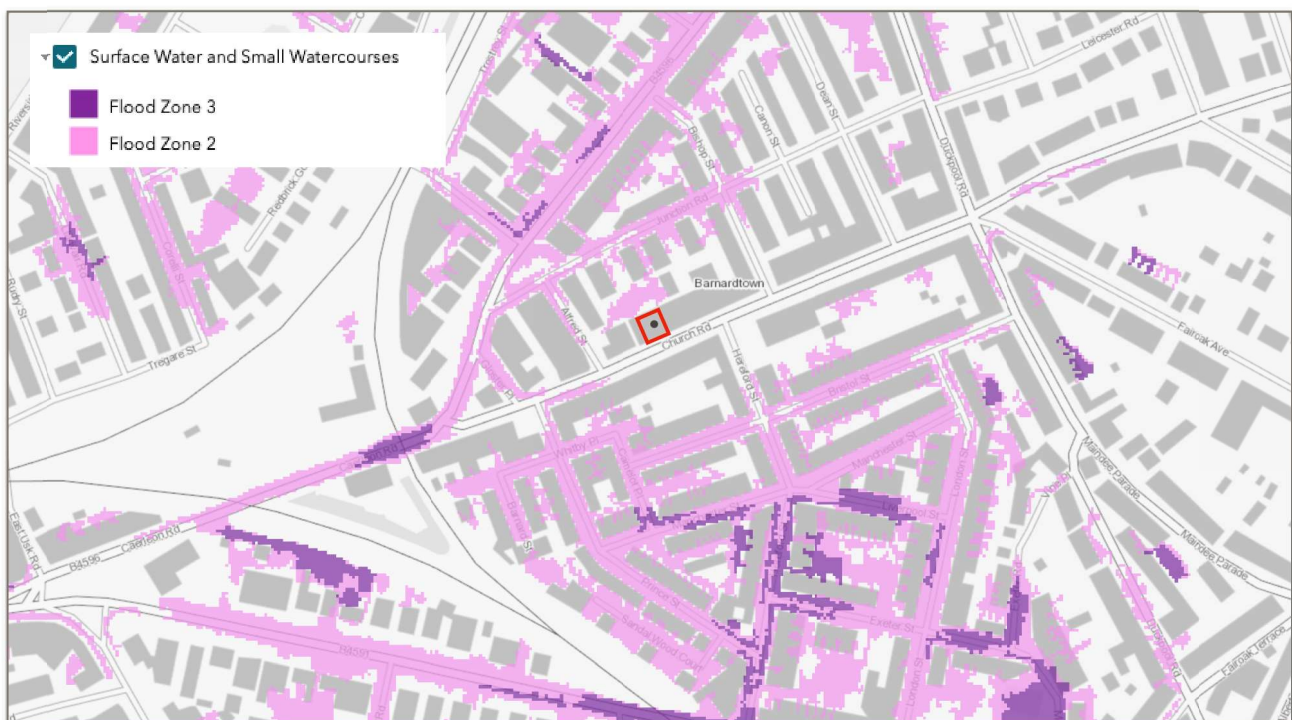


FIGURE 7. FLOOD RISK FROM SURFACE WATER AND SMALL WATERCOURSES MAP (FLOOD-MAP-FOR-PLANNING.NATURALRESOURCES.WALES, 2025)

To ensure that site users remain safe at all times, a raised threshold is recommended with channel drainage at entrances to mitigate any opportunity for surface water to enter the building. Furthermore, ground levels on site will be encouraged to fall away from the building thresholds and positively drained, and any drainage should be designed to meet the requirements of Part H of Building Regulations. Sustainable Drainage Systems (SuDS), are also recommended to mitigate the surface water flood risk for the development.

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.

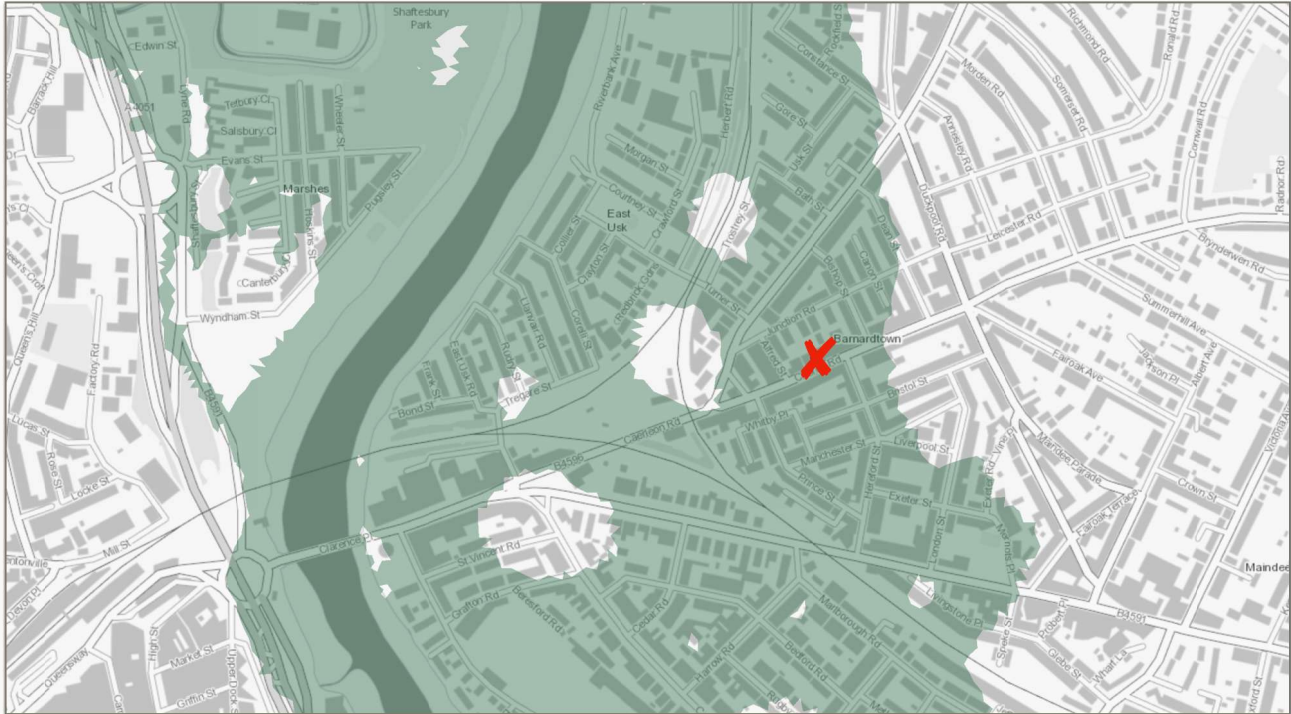


FIGURE 8. NRW FLOOD RISK FROM RESERVOIRS MAP (FLOOD-MAP-FOR-PLANNING.NATURALRESOURCES.WALES, 2025)

Figure 8 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.

Detailed Flood Risk Assessment

This section presents the predicted flood levels, depths, and site-specific consequences based on the latest NRW modelled data, and sets out how the proposed development will manage those risks in accordance with TAN15 (March 2025).

Model outputs from the Newport_5_V8.0_2022 tidal model (Product 6 data) have been reviewed using GIS analysis. These provide fluvial and tidal flood levels for both defended and undefended scenarios, with climate change allowances to the 2115 epoch.

The site lies within a TAN15 Defended Zone, with formal flood defences protecting against tidal inundation up to the 0.5% AEP event. However, residual risk remains from defence overtopping or breach during more extreme future scenarios.

The modelled flood levels relevant to this site are:

- Undefended 0.5% AEP (2015 epoch): 7.58m AOD
- Undefended 0.1% AEP (2015 epoch): 7.74m AOD
- Defended 0.5% AEP (2115 epoch): 7.83m AOD
- Defended 0.1% AEP (2115 epoch): 9.00m AOD
- Undefended 0.5% AEP (2115 epoch): 9.05m AOD
- Undefended 0.1% AEP (2115 epoch): 9.68m AOD

The proposed finished floor levels are:

- Ground Floor FFL (non-residential only): 7.83m AOD
- First Floor FFL (all residential accommodation): 9.68m AOD

The mezzanine / first floor residential level exceeds the 0.1% AEP flood level with climate change under an undefended scenario, thereby ensuring that all sleeping and communal areas remain permanently accessible and flood-free during even the most extreme flood events. This satisfies the tolerable condition for highly vulnerable development in defended zones, as per TAN15 Section 11.4.

Church Road may experience significant flooding in the 0.1% AEP climate-adjusted event, with depths exceeding 1.5m in some areas. These depths exceed the 600 mm threshold in Figure 6 of TAN15 for safe access. However, the inclusion of a dedicated internal refuge at a level above the maximum predicted flood level provides a compliant and robust life safety strategy.

While flood doors are proposed at entrances as an additional mitigation measure, they are not relied upon for life safety. Their effectiveness is limited beyond the design thresholds of BS 851188, particularly where flood depths exceed 600 mm. They are included to slow ingress and reduce damage, rather than to prevent flooding outright.



FIGURE 9. NEWPORT_5_V8.0_2022 - 1 IN 200 YEAR FLUVIAL FLOOD LEVEL (MAOD) - DEFENDED 2121 EPOCH

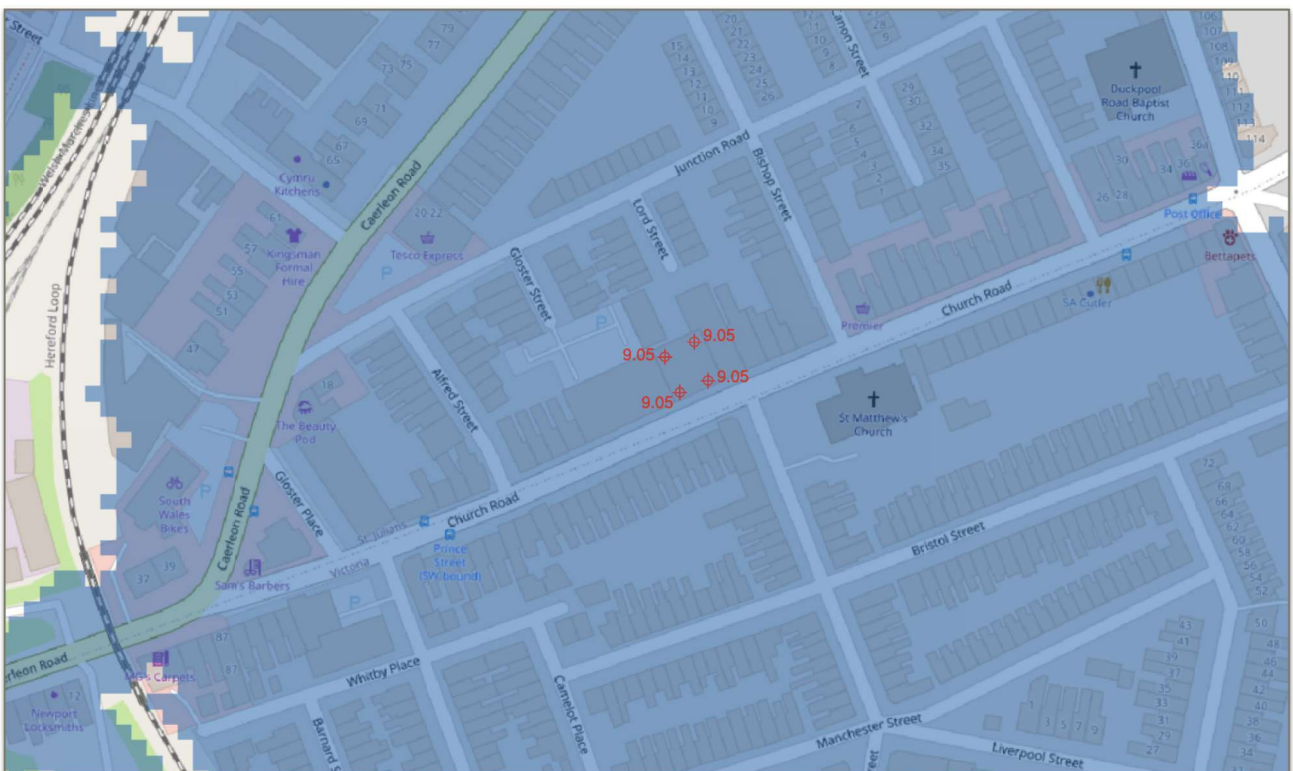


FIGURE 10. NEWPORT_5_V8.0_2022 - 1 IN 200 YEAR TIDAL FLOOD DEPTHS - UNDEFENDED 2121 EPOCH

Third party flood risk

TAN15 (2025) requires that any development within a flood risk area must demonstrate that it does not cause or exacerbate flood risk elsewhere. In particular, the Flood Consequence Assessment must assess whether the development would lead to displacement of floodwater, a loss of floodplain storage, or obstruction of overland flow paths during a flood event.

The proposed development involves the conversion of an existing disused building within a defended tidal floodplain. There are no proposals to raise surrounding ground levels, extend the building footprint, or alter the existing site layout in a way that would affect flood storage capacity or flow paths.

The site lies in an area benefitting from formal defences and is not located within the functional floodplain. As such, no encroachment or infilling of active floodplain corridors is proposed. The ground levels will remain unaltered, and any external works will be minor and limited to resurfacing or SuDS features that do not materially change local floodplain hydraulics.

Given the unchanged ground levels, the retention of the existing building footprint, and the absence of any floodplain encroachment, the development will not displace floodwater or increase flood risk to third parties.

Accordingly, the proposal is consistent with the requirements of TAN15 (2025), Section 6.8 and Figure 2, which require that flood consequences must be managed without increasing risks elsewhere.

Access and Egress

In accordance with TAN15 (March 2025), proposed development in flood risk areas must consider the availability of safe access and egress during a flood event, particularly for highly vulnerable development (HVD). Figure 6 of TAN15 sets out the tolerable thresholds for access routes, recommending maximum depths of 600 mm and maximum velocities of 0.3 m/s in the 0.1% AEP event with climate change.

The site is accessed directly from Church Road, with two pedestrian entrances available to the public frontage. However, flood modelling shows that Church Road is expected to flood to depths of up to 1.546 m during the defended 0.1% tidal flood event to 2115, which exceeds the tolerable access thresholds for highly vulnerable use.

As a result, safe dry access cannot be maintained during extreme events, and the development cannot rely on evacuation alone. In such circumstances, TAN15 Section 11.4 allows for the use of permanent, accessible refuge where this is necessary and appropriate, especially in conversion schemes within defended zones.

All residential accommodation, including sleeping and communal areas, is located on the first floor at 9.68m AOD, which is above the 0.1% AEP flood level (undefended, 2115). This level provides sufficient protection to allow in situ refuge for the duration of any tidal flood event, including breach or overtopping scenarios.

In the event of a severe flood, residents will be expected to remain indoors at first floor level until floodwaters subside. Tidal flooding is generally short in duration and predictable, and residents will be encouraged to register for NRW's flood warning service to ensure early notification. A site-specific Flood Response and Evacuation Plan will be prepared and maintained by the building operator, setting out clear procedures for safe refuge and post-flood recovery.

The proposed strategy is therefore compliant with TAN15, balancing the limitations of the site's access routes with a robust and policy-supported refuge-led approach.

Flood Response and Evacuation Plan

Given the site's location within a defended tidal floodplain and the exceedance of safe access thresholds in the extreme climate-adjusted event, the flood risk strategy for this development is based on refuge rather than evacuation. In accordance with TAN15 and standard risk management practice, a site-specific Flood Response and Evacuation Plan (FREP) will be required.

The FREP will set out how residents should respond in the event of a flood warning, and will include the following elements:

- Procedures for monitoring flood warnings and alerts issued by Natural Resources Wales.
- Contact details for emergency services and site managers.
- Confirmation that residents are expected to remain indoors on the first floor during extreme tidal events.
- Guidance on flood durations, refuge use, and post-event recovery.
- Internal signage and communication protocols for new occupants.

All residential accommodation is located on the first floor at 9.68m AOD, which is above the predicted 0.1% AEP tidal flood level with climate change, including in breach scenarios. The first floor provides sufficient space and elevation for occupants to shelter in place safely during flood events.

Responsibility for the preparation and ongoing management of the FREP will rest with the relevant party appointed to oversee the building's occupation and day-to-day operations. This assessment sets out the strategic basis for a refuge-led approach but does not serve as an operational flood plan or cover ongoing emergency management arrangements.

Approach to Flood Risk from Change of Use|Conversion

The proposed development involves the change of use and conversion of an existing disused building to residential accommodation. As confirmed in paragraphs 10.20 to 10.23 of TAN15 (March 2025), different planning principles apply to conversions, with greater flexibility afforded where the proposal relates to previously developed land and an existing structure within a TAN15 Defended Zone.

TAN15 recognises that for change-of-use proposals, particularly in defended areas, the ability to direct development away from flood risk is constrained. Paragraph 10.21 advises that conversions should still be assessed carefully through a Flood Consequence Assessment, but greater weight may be given to mitigation measures such as raised floor levels, safe refuge, and flood warning systems.

Paragraph 10.23 makes clear that “change of use proposals involving buildings already present within a defended flood zone may be acceptable where it can be demonstrated that the consequences of flooding are manageable over the lifetime of development.” That is precisely the case here.

In line with TAN15:

- The site is within a TAN15 Defended Zone, where flood risk is significantly reduced under present-day and design-standard conditions.
- All sleeping accommodation is provided above the 0.1% AEP flood level, with the first floor set at 9.68m AOD, exceeding the undefended 0.1% AEP tidal flood level for the 2115 epoch.
- The ground floor is restricted to non-habitable use, and its FFL (7.83m AOD) corresponds to the defended 0.5% AEP tidal level for the future climate change scenario.
- The development does not require any increase in footprint or changes to ground levels that would displace floodwater or worsen flood risk elsewhere.

The flood defences along the River Usk provide a strong base level of protection and are recognised as part of NRW’s formal flood risk management infrastructure. In line with TAN15 expectations, residual risk is acknowledged and addressed through the provision of internal refuge, the use of resilient construction materials, and the preparation of a Flood Response and Evacuation Plan.

The policy framework in TAN15 supports the reuse and adaptation of existing buildings where the consequences of flooding can be appropriately managed. This proposal is fully aligned with the intent and tests set out in the 2025 TAN15, and demonstrates a proportionate, resilient, and policy-compliant approach to managing flood risk in the context of a change of use within a defended tidal floodplain.

Flood Mitigation Measures

TAN15 (March 2025) requires that development in flood risk areas must be designed to minimise the risk to life, reduce disruption, and ensure resilience during flood events. The Ty Derwen scheme incorporates a range of flood mitigation measures consistent with the expectations in Sections 11 and 13 of the TAN.

The primary safety feature is the provision of a permanent and accessible refuge at first floor level, where all residential accommodation, including bedrooms and communal areas, will be located. The first floor finished level is set at 9.68m AOD, which lies above the modelled 0.1% AEP tidal flood level with climate change, including under undefended conditions. This ensures that all habitable space will remain dry, accessible, and functional even during an extreme flood event.

The ground floor, which is limited to commercial or non-residential use, will be set at 7.83m AOD. While this level corresponds to the defended 0.5% AEP tidal scenario, additional resilience measures will be included. These will consist of water-resistant construction materials, with internal walls and floor finishes selected to resist water ingress and facilitate post-flood recovery. Where practical, building services and electrical installations will be elevated above anticipated flood levels to reduce the risk of damage.

Flood doors are proposed at entrances to offer resistance during standard design events and to delay the ingress of floodwater. These will serve to reduce the risk of shallow flooding and commercial disruption but will not be relied upon as the primary means of protection. Where predicted depths exceed 600 mm, reliance on proprietary flood resistance is not appropriate and the system's specification, limitations, and installation requirements must be confirmed by the manufacturer.

External ground surfaces will be designed to shed surface water away from building thresholds. Channel drainage may be installed at entrances to intercept runoff, and any new hardstanding introduced as part of the scheme will be appropriately drained or made permeable, in accordance with Building Regulations and SuDS principles.

A site-specific Flood Response and Evacuation Plan will be prepared and maintained. Residents will be encouraged to register with NRW's flood warning service to ensure advance notice of any significant tidal flood risk. The nature of tidal flooding, which typically rises predictably and recedes within hours, allows for a planned and managed flood response when supported by refuge-led design.

In combination, these measures ensure that the proposed development is appropriately mitigated and can be considered acceptable within the risk-based framework of TAN15.

Conclusions

This Flood Consequence Assessment has demonstrated that the proposed development at Ty Derwen, Church Road, Newport, can proceed in accordance with the requirements of TAN15: Development, Flooding and Coastal Erosion (March 2025). The site lies within Flood Zone 3 (Rivers and Sea) as defined on the Flood Map for Planning, and falls within a TAN15 Defended Zone due to the presence of formal tidal flood defences along the River Usk.

The development involves the conversion of an existing building on previously developed land. In line with TAN15 guidance for change-of-use proposals in defended areas, all residential accommodation, including communal living areas, will be located exclusively on the first floor, at a finished level of 9.68m AOD. This elevation lies above the modelled 0.1% AEP tidal flood level with climate change, even in the event of a breach or failure of defences, and therefore satisfies the requirements for permanent refuge as set out in Section 11.4 and Figure 6 of the TAN.

The ground floor will be used solely for commercial or non-residential purposes and is set at 7.83m AOD. Although parts of Church Road are predicted to flood to depths exceeding 1.5m during an extreme event, which is above the tolerable access thresholds, TAN15 supports a refuge-based life safety strategy in these cases. The proposed internal arrangement achieves this, with no reliance on ground floor evacuation.

Additional mitigation includes the use of flood-resilient materials, the installation of proprietary flood doors at entrances, and the preparation of a site-specific Flood Response and Evacuation Plan. These measures further reduce flood consequences for both property and people, and ensure the development is appropriately adapted to its location.

The proposal does not require referral to Welsh Government under the Flood Risk Area Development Notification Direction (Circular 002/2025), and the residual risks have been assessed and mitigated in accordance with TAN15. In policy terms, the development is compliant, proportionate, and sustainable, with no adverse effect on third-party flood risk and no reliance on untested or speculative flood infrastructure.

The site meets the relevant policy tests for highly vulnerable development in a defended flood risk area under TAN15 and is considered acceptable from a flood risk perspective.

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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Signature	TQ	MS	TQ
Date	23 May 2025	23 May 2025	23 May 2025

Appendix A - Architectural Drawings