

Llancayo Flood Consequences Assessment

Version 1

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This report describes work commissioned by Travelling Ahead by an instruction dated October 2023. Charlotte Lickman of JBA Consulting carried out this work.

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1 Introduction

1.1 Terms of Reference

JBA Consulting (JBA) were commissioned by Travelling Ahead to undertake a Flood Consequences Assessment (FCA) to support a six-plot traveller site with associated amenities. This FCA demonstrates the suitability of the proposed development.

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). Where appropriate, the following aspects of flood risk should be addressed in all planning applications over their expected lifetime:

- 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 flood water across the site
- Overland flow routes
- The effect of access and egress and infrastructure, for example, public sewer outfalls, surface water sewers and effluent discharge pipes from wastewater treatment work.
- The impacts of the development in terms of flood risk on neighbouring properties and elsewhere on the floodplain.

2 Site Description

2.1 Site summary

The proposed traveller site is located in the village of Llancayo, Monmouthshire. The site is bound to the west by the B4598, as shown in Figure 2-1. The south and east of the site are bound by an unnamed lane, and adjacent to the north, and the wider surrounding area is predominantly greenfield land which is used for farming purposes. The site is approximately 0.52ha in size and is currently used as an unauthorised traveller site.

A summary of the site details is shown in Table 2-1.

Table 2-1 Site summary

Site name	Llancayo Traveller Site
Site area	0.52 ha
Existing land use	Unauthorised Traveller Site
Purpose of development	Residential
OS NGR	SO 36935 02933
Local Planning Authority	Monmouthshire County Council
Lead Local Flood Authority	Monmouthshire County Council

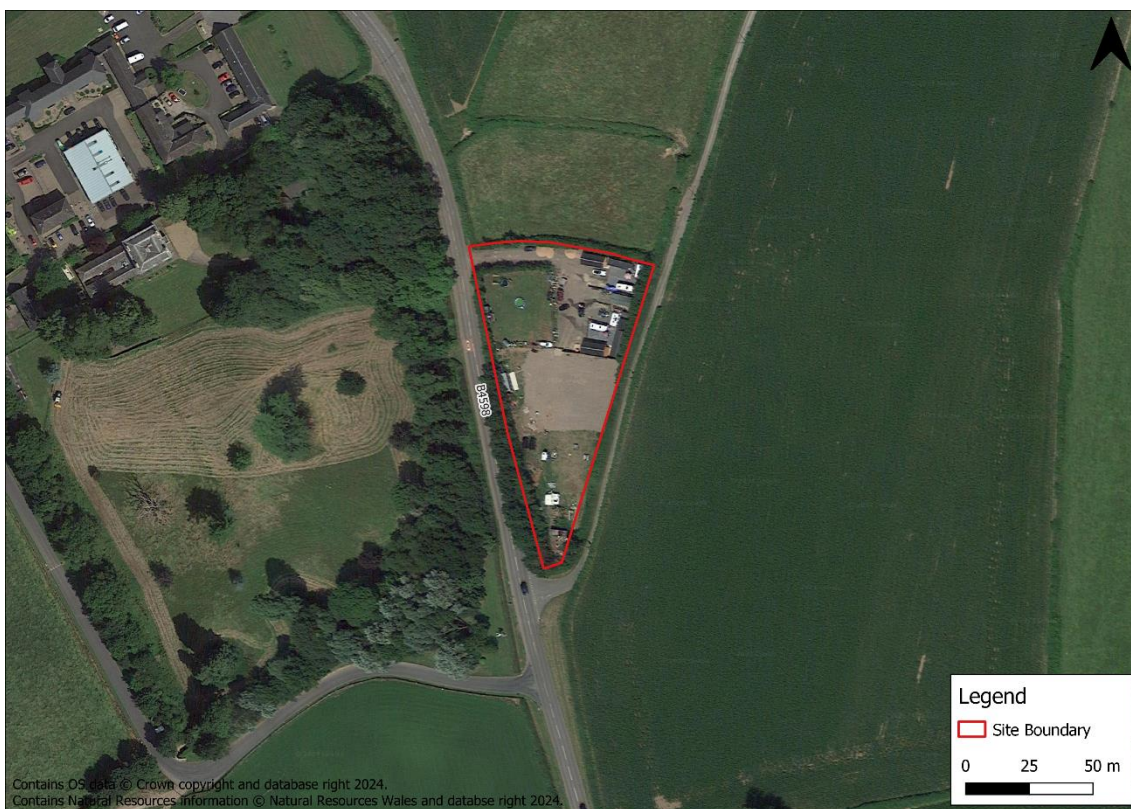


Figure 2-1 Site Location

2.2 Site Topography

A topographic survey of the site is not available at the time of writing. Therefore, Natural Resources Wales (NRW) 1m Light Detection and Ranging (LiDAR) data has been used to illustrate the site topography and is displayed in Figure 2-2.

The site slopes in a general westerly direction with the highest ground level along the eastern boundary at approximately 28.04m AOD. The lowest ground levels are located in the north-western area of the site, along the existing access road at approximately 25.72m AOD.

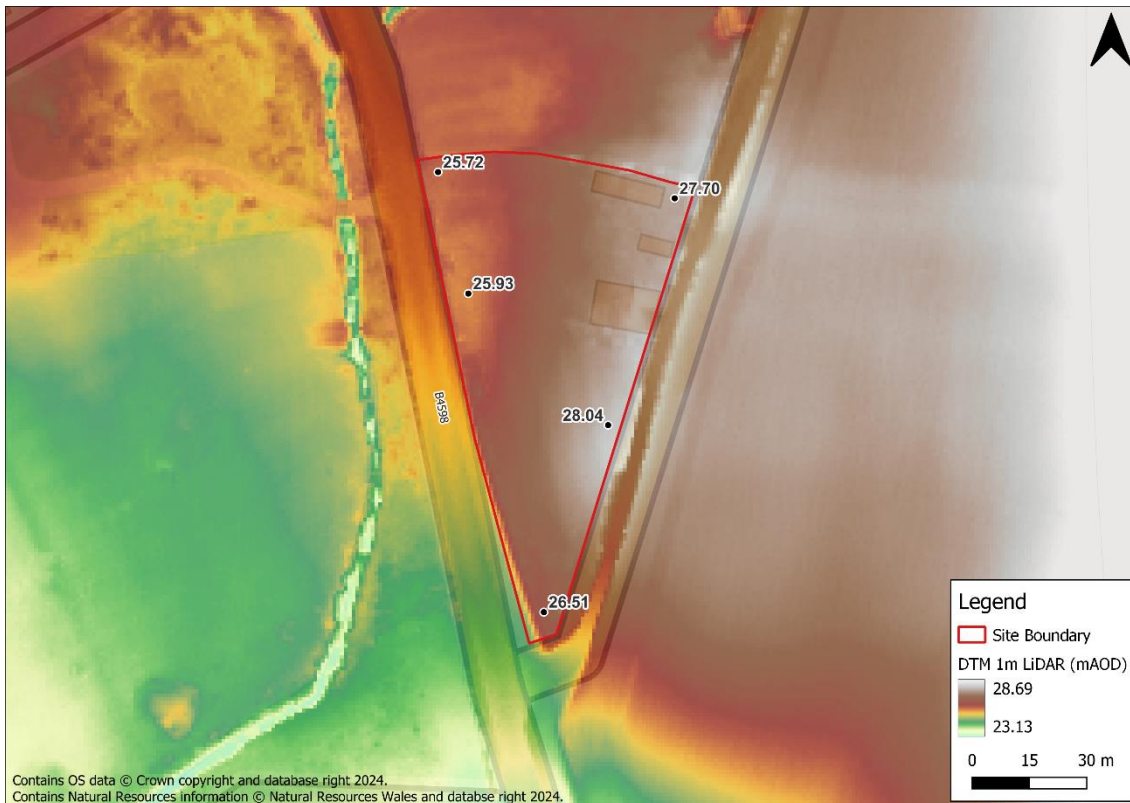


Figure 2-2 Site Topography

2.3 Soils and Geology

The geology of the site has been assessed using the British Geological Survey GeoIndex¹. The bedrock is shown to be Lower Forest Beds and Upper Forest Beds, which is comprised of mudstone.

The soils have been assessed on the Cranfield University Soilscape viewer² and shown to be freely draining slightly acid loamy soils.

1 https://mapapps2.bgs.ac.uk/geoindex/home.html?_ga=2.258799171.815361820.1684335491-2098730191.1684335491

2 <https://www.landis.org.uk/soilscales/>

2.4 Nearby watercourses

There are no watercourses that cross the site. An ordinary watercourse flows in a general westerly direction approximately 50m to the north of the site, as shown in Figure 2-3. The watercourse is culverted under the B4598 and turns to flow south, parallel to the road and to the west of the site. It then flows south-westerly for approximately 800m before it joins the River Usk, an NRW designated Main River.



Figure 2-3 Nearby watercourses

2.5 Proposed development

The proposed development is a six-plot traveller site with associated amenities including parking and stable blocks. The proposed development plan is contained in Appendix A. The proposed layout shows that the caravans are to be housed to the east of the site with the main access via the north-west. Along the eastern boundary is a proposed emergency access point which shall be accessible at all times.

3 Planning Policy and Flood Risk

3.1 Planning Context

Planning Policy Wales (PPW) 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 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: Development and Flood Risk (TAN-15) introduced by the Welsh Government in 2004, provides technical guidance relating to development planning and flood risk in Wales. The initial requirements of TAN-15 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 TAN-15 was released in October 2021. However, Welsh Government subsequently suspended this, and it is not currently known when the new TAN-15 will be published in its final form and implemented. Although the new TAN-15 is not a material consideration, Welsh Government and NRW advise that some consideration is given to the Flood Map for Planning (FMfP) as 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 FMfP are considered as part of this FCA, although only the policies of the current TAN-15 has been applied to the assessment.

3.2 Vulnerability Classification

TAN-15 assigns one of three flood risk vulnerability classifications to a development, as shown in Table 3-1. The proposed development is for residential purposes. Consequently, the development is classified as **'highly vulnerable'**.

Table 3-1 Vulnerability Classifications

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 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.

3.3 Lifetime of development

The Welsh Government latest technical guidance for climate change states:

"When considering new development proposals, Technical Advice Note 15: Development, Flooding and Coastal Erosion (TAN-15) states that it is necessary to take account of the potential impacts of climate change over the lifetime of development. A rule of thumb is that residential development has a lifetime of 100 years while a lifetime of 75 years is assumed for all other developments.

As the proposals are for a residential use, a 100-year lifetime of development has been considered in this assessment.

3.4 Development Advice Map

The Development Advice Map (DAM) is used to trigger different planning actions based on a precautionary assessment of fluvial and tidal risk.

Figure 3-1 indicates that the majority of the site is located within Zone A. This describes areas which are considered to be at little or no flood risk.

An area in the north-west of the site is located within Zone C2, which is described as areas of the floodplain without significant flood defence infrastructure.

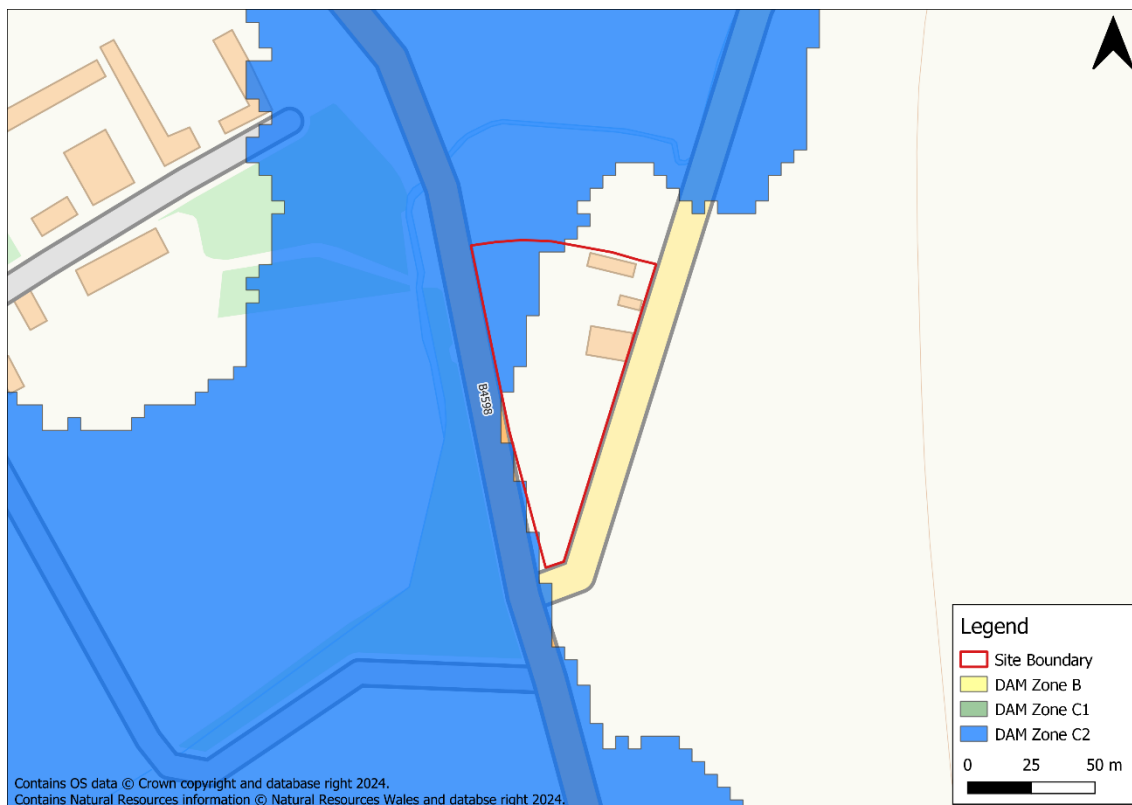


Figure 3-1 Development Advice Map

3.5 Flood Map for Planning Classification

The Flood Map for Planning (FMfP) is used to trigger different planning actions in support of the forthcoming TAN-15. Although the new TAN-15 is not a material consideration, the new Flood Map for Planning is useful in that it shows the flood risk allowing for climate change over a 100-year lifetime of development.

3.5.1 Flood Map for Planning - Rivers

The proposed development site is mostly located in Flood Zone 1 of the Flood Map for Planning. Flood Zone 1 indicates that there is a less than 0.1% AEP (1 in 1000) chance of flooding from fluvial sources in any given year, including climate change.

The north-west of the site is shown to be located within Flood Zone 3, as shown in Figure 3-2. This means that there is a greater than 1% (1 in 100) chance of flooding in any given year, including climate change.

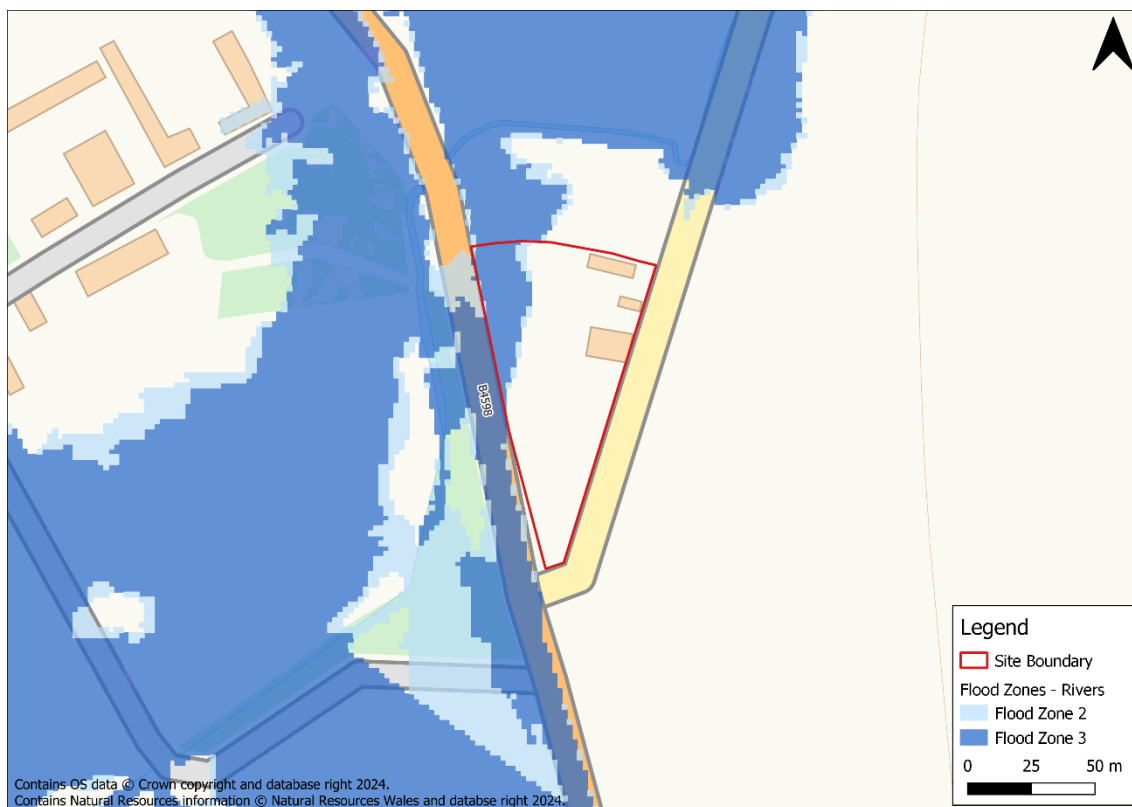


Figure 3-2 Flood Map for Planning - Rivers

3.5.2 Flood Map for Planning - Sea

The proposed development is located in Flood Zone 1 of the Flood Map for Planning for the Sea (shown as transparent on the map) and has therefore not been presented graphically. Flood Zone 1 indicates that there is a less than 0.1% AEP (1 in 1000) chance of flooding from tidal sources in any given year, including climate change.

3.5.3 Flood Map for Planning - Surface Water and Small Watercourses

The proposed development site is mostly located within Flood Zone 1 of the Flood Map for Planning for Surface Water and Small Watercourses, meaning that there is a less than 0.1% AEP (1 in 1000) chance of flooding in a given year, including climate change.

A small area along the western boundary is shown to be located within Flood Zone 3 of the FMfP, as shown in Figure 3-3, indicating that there is a greater than 1% AEP (1 in 100) chance of flooding in a given year, including climate change.

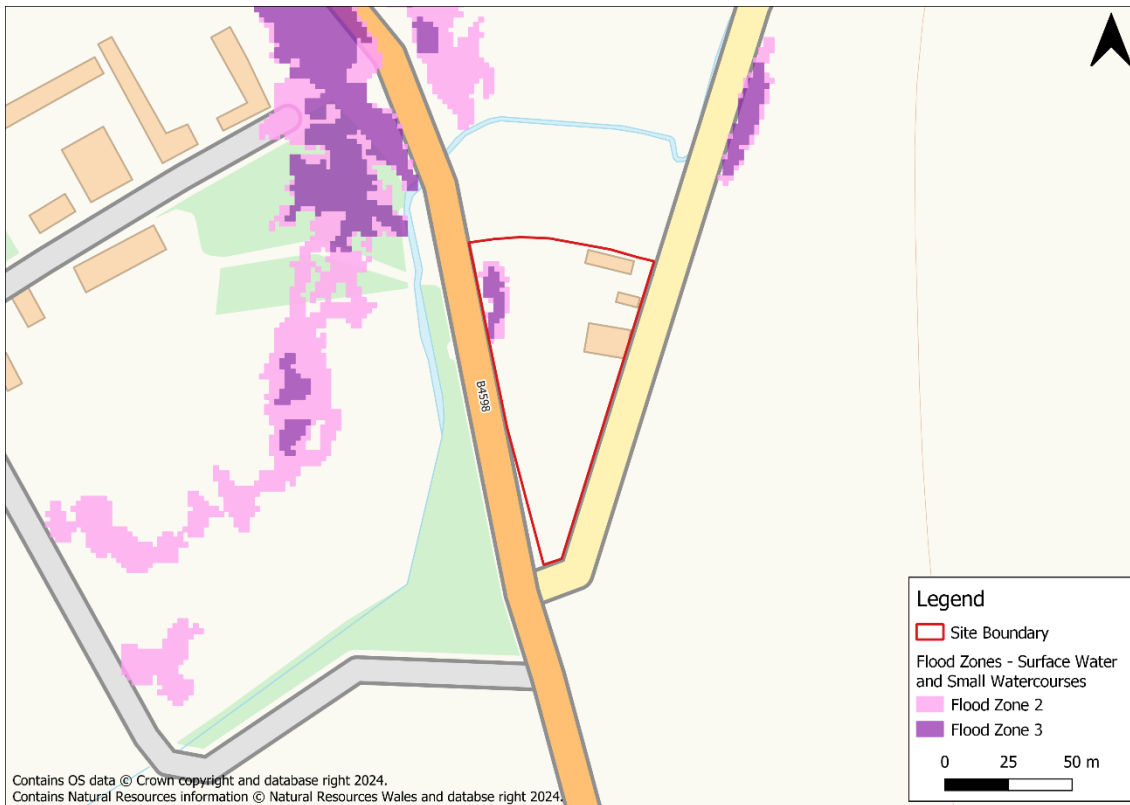


Figure 3-3 Flood Map for Planning - Surface Water and Small Watercourses

3.6 Justification Test

In accordance with TAN-15 highly vulnerable development is acceptable in Zone A without the need to consider flood risk any further. All proposed residential development is to be located within areas of the site designated Zone A on the DAM. Therefore, the Justification Test is not required to demonstrate the location of the traveller plots are justified.

However, the proposed access into the site is located within Zone C2 of the DAM. Development within Zone C2 should be considered subject to the application of the Justification Test, including acceptability of the consequences.

Consequently, the application of the Justification Test applies to those parts of the development site within Zone C2 only (i.e. the access road). The site has been assessed against the criteria of the Justification Test, and is found to have met all requirements, as shown in Table 3-2.

Table 3-2 Justification test applied to the proposed development

TAN-15 Justification Criteria	Comments	Achieved
<p>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.</p>	<p>The proposed development will assist with Policy H8 of the Monmouthshire Local Development Plan.</p>	<p>✓</p>
<p>The site meets the definition of previously development land (i.e. is not a greenfield site) and concurs with the aims of Planning Policy Wales (i.e. the presumption in favour of sustainable development).</p>	<p>The proposal involves the development of brownfield land, which is currently used as an unauthorised traveller site.</p>	<p>✓</p>
<p>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.</p>	<p>The flood consequences have been assessed and are detailed in Sections 4 and 5.</p>	<p>✓</p>

4 Flood Risk Assessment

This section assesses the risk to the site from all sources of flooding, the risk of increased flood risk to others, and how flood risk can be managed. Information is taken from publicly available data sources.

4.1 Review of existing flood risk data

The latest available information on flood risk at the site, published by NRW, is summarised in Table 4-1 below.

Table 4-1 Flood Risk summary

Source of Flooding	Onsite Presence	Description
Flood Risk from Rivers	✓	The site is predominantly at very low risk of flooding from rivers. However, the north-west of the site is at medium - high risk of flooding.
Flood Risk from the Sea	✗	The site is at very low risk of tidal flooding.
Flood Risk from Surface Water and Small watercourses	✓	The site is mostly at very low risk of surface water and small watercourse flooding. A small area along the western boundary is shown to be at low risk.
Flood Risk from Groundwater	✗	The site is at low risk of flooding from groundwater.
Flood Risk from Reservoirs	✗	The site is at very low risk of flooding from reservoirs
Flood Risk from Sewers	✗	The site is at low risk of flooding from sewers.

4.2 Historical Flooding

NRW's map of recorded flood extents does not show any evidence of historical flooding on the site and no other evidence of historical flooding has been identified.

4.3 Flood Risk from Rivers

The site is mostly at very low risk of flooding from rivers, according to NRW's Flood Risk Assessment Wales (FRAW) Flood Risk from Rivers map, as shown in Figure 4-1. All proposed residential development, and the emergency access on the eastern boundary, is located in areas at very low risk of fluvial flooding. This means that there is a less than 0.1% AEP (1 in 1000) chance of fluvial flooding in any given year.

The proposed access road and stable blocks, in the north-west of the site is shown to be at low - medium risk of flooding. Medium risk indicates between a 1% and 3.3% AEP (1 in 100 to 1 in 30) chance of flooding from fluvial sources.

To better understand the risk of flooding posed by rivers and the implications of climate change on the flood risk to the proposed development, further assessment has been undertaken and is discussed in Section 5.

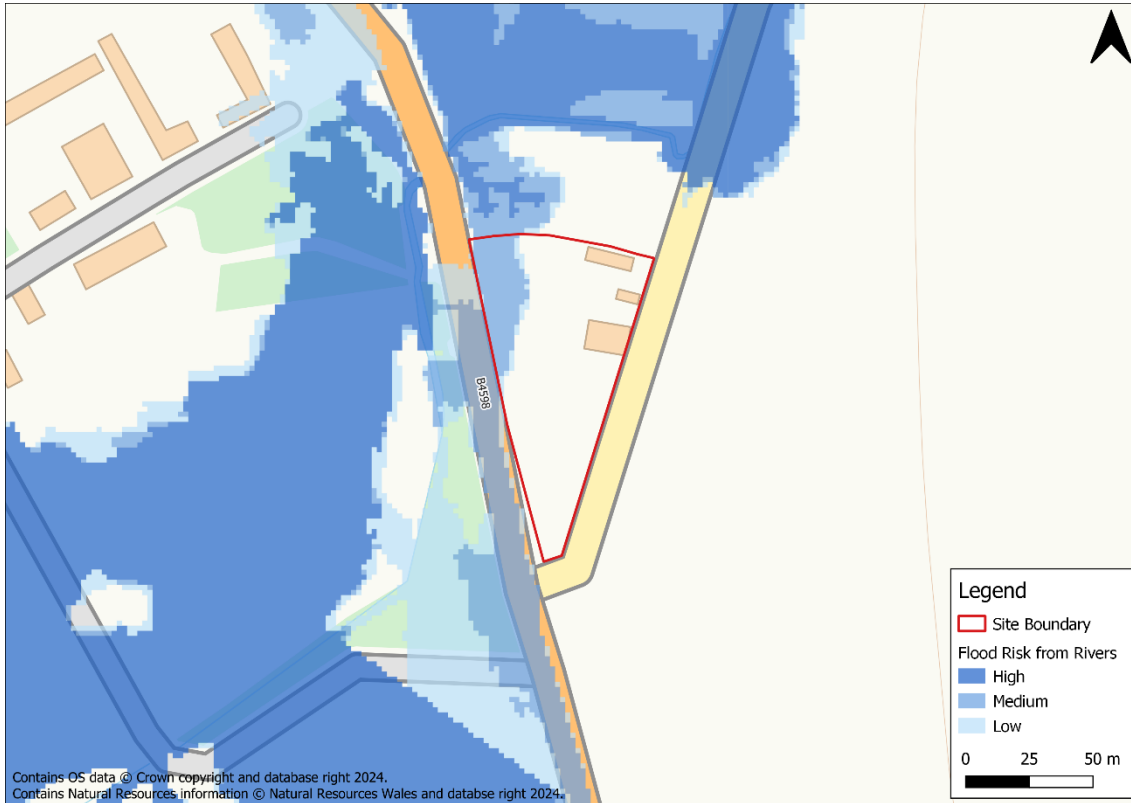


Figure 4-1 FRAW - Flood Risk from Rivers

4.4 Flood Risk from the Sea

The site is at very low risk of flooding from the Sea according to NRW's FRAW Flood Risk from the sea map. This means there is a less than 0.1% AEP (1 in 1000) chance of flooding from this source in any given year. This layer is shown as transparent and therefore has not been presented graphically.

4.5 Flood Risk from Surface Water and Small Watercourses

The NRW FRAW flood risk from Surface Water and Small watercourses mapping shows that the proposed development site is predominantly at very low risk of flooding from these sources, as shown in Figure 4-2. This means that there is a less than 0.1% AEP (1 in 1000) chance of flooding in any given year. A small, localised area of ponding in the west of the site is shown to be at low risk of flooding from surface water and small watercourses, meaning that there is between a 0.1% - 1% AEP (1 in 1000 to 1 in 100) chance of flooding.

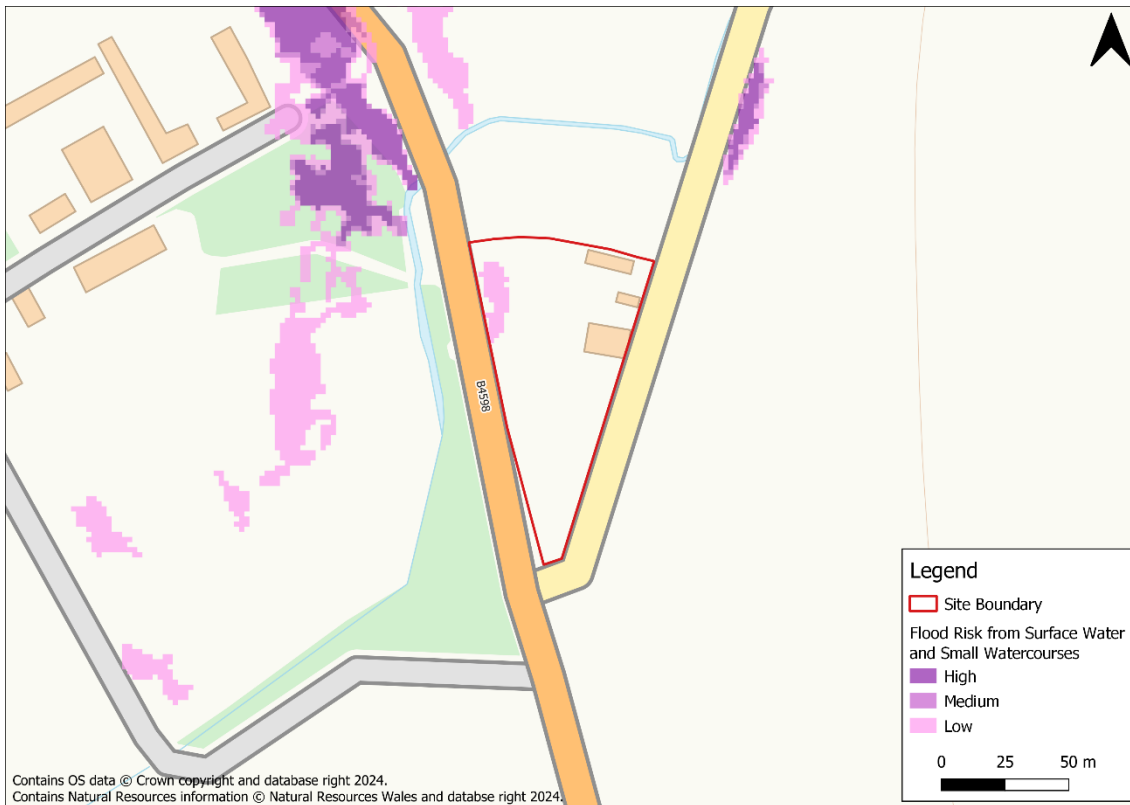


Figure 4-2 FRAW - Flood Risk from Surface Water and Small Watercourses

4.6 Flood Risk from Groundwater

Groundwater flooding is caused by unusually high groundwater levels. It occurs as excess water emerges at the ground surface or within manmade structures such as basements. Groundwater flooding tends to be more persistent than surface water flooding, in some cases lasting for weeks or months, and can result in damage to property. This risk of groundwater flooding depends on the nature of the geological strata underlying the site and the local topography.

The British Geological 1:50,000 scale GeoIndex viewer indicates the bedrock to be comprised of mudstone. Mudstone is generally considered to be reasonably impermeable and unlikely to support groundwater and results in groundwater flooding. It can therefore be concluded that the risk of flooding from groundwater to the site is low.

4.7 Flood Risk from Reservoirs

The NRW Flood Risk from Reservoirs map illustrates that the proposed development site is at very low risk of reservoir flooding, shown as a transparent later on the FRAW mapping and therefore not presented graphically below.

4.8 Flood Risk from Sewers

There is no evidence to show historic sewer flooding on or close to the site. It can therefore be concluded that the risk of sewer flooding at the site is low.

5 Detailed Assessment of Fluvial Flood Risk

Fluvial flood risk has been identified as the significant source of flooding to the site. To better understand the risk of fluvial flooding posed to the site, further assessment using National Flood Hazard Mapping is provided in this section.

5.1 Assessment of fluvial flood risk

The NRW flood maps uses a combination of generalised national scale modelling and detailed local models where they exist. In the case of the proposed development, the site is not covered by detailed fluvial modelling, and to undertake such modelling would be a disproportionate exercise. Therefore, to inform this assessment the flood depths from the National Flood Hazard Mapping have been used assess fluvial flood risk to the site.

National Flood Hazard Mapping fluvial depth grids have been utilised to assess the maximum depths across the site for the medium-risk scenario (1% AEP event) and the low-risk scenario (the 0.1% AEP event). It should be recognised that this approach of taking water depths from national scale flood modelling is less reliable than detailed local flood risk modelling. However, this approach reflects the nature of the development and relatively low flood risks.

5.2 1% AEP (1 in 100 year)

Figure 5-1 shows the NRW modelled flood depths for the 1% AEP (1 in 100) flood event utilising the National Flood Hazard Mapping. The mapping indicates that all proposed residential areas are predicted to remain flood free during this event.

The main access road into the site is shown to flood in the 1% AEP event with shallow depths of up to 200mm.

Additionally, two x 3-bay stable blocks are proposed to be located along the western boundary. The maximum flood depth within the footprint of the stable blocks is 250mm. Therefore, it is recommended that the Finished Floor Level is raised by approximately 300mm to ensure that all built development is flood free during the 1% AEP event.

It is noted that TAN-15 requires an assessment of flood risk against the 1% AEP event with an allowance for climate change. The National Flood Hazard Mapping does not include an allowance for climate change, and as detailed above, it is considered disproportionate to build a detailed model in this instance, given the scale and nature of the development. Additionally, the flood depths stated above, and proposed mitigation is supported by other publicly available data. The Flood Map for Planning, which includes an allowance for climate change, shows a minimal change to extent in comparison to the National Flood Hazard Mapping (Section 3.5.1), suggesting a minor change in flood depths when climate is considered. Also, flood depths in the 0.1% AEP event, defined from the National Flood Hazard Mapping are predicted to be shallow, as detailed in Section 5.3.

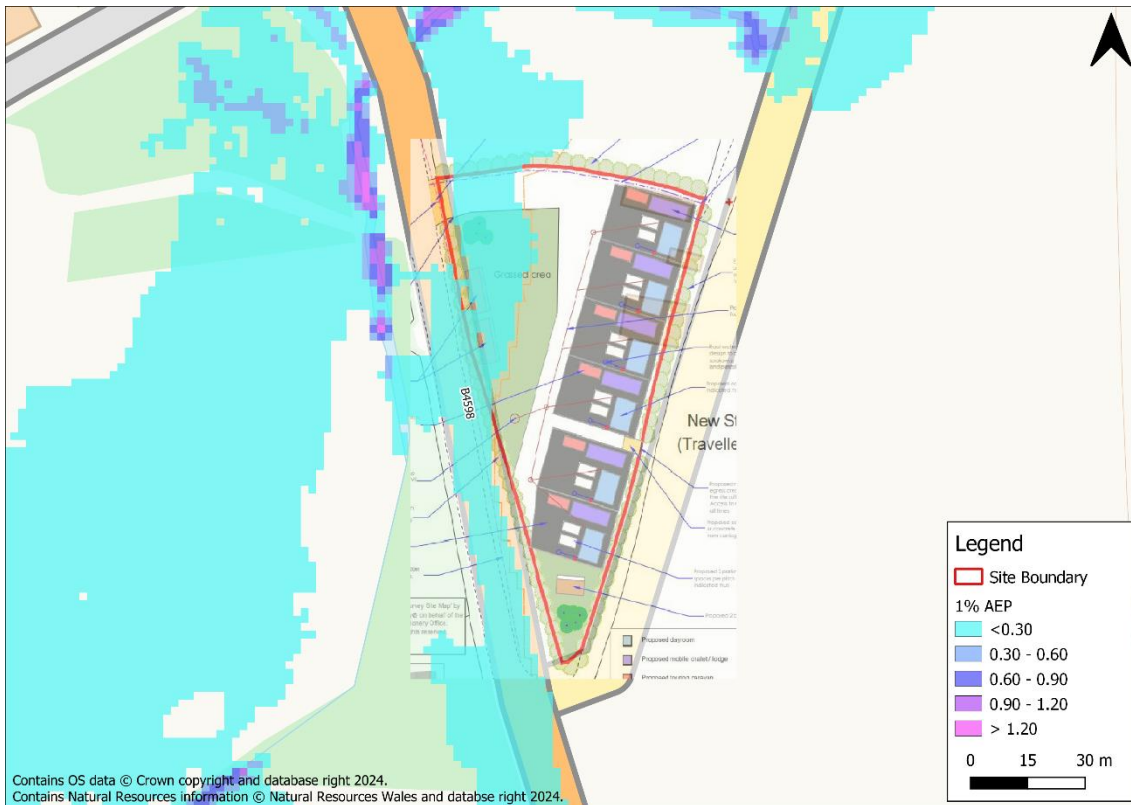


Figure 5-1 National Flood Hazard Mapping - Depth for the 1% AEP event

5.3 0.1% AEP (1 in 1000 year)

Figure 5-2 shows the NRW modelled flood depths for the 0.1% AEP fluvial event. The mapping indicates all proposed residential areas are predicted to remain flood free during the extreme event.

An area in the north-west of the site is shown to flood during this event. This area is predominantly amenity space, with two proposed stable blocks within the flood extent. Generally, across this area, flood depths are not predicted to exceed 600mm, with depths typically less than 400mm. Flood depths across the proposed stable blocks are predicted to a maximum of 308mm. This is well within the tolerable limits (600mm) suggested within A1.15 of TAN-15 for the 0.1% AEP event.

Flooding of the main access road in the north-west is predicted up to a maximum depth of 294mm. This is well within the tolerable limits (600mm) suggested within A1.15 of TAN-15 for access routes on residential sites.

The emergency access to the eastern boundary of the site is predicted to be flood free during the extreme event. Access and egress to the site is available from the eastern boundary, in a northerly direction where flood depths are less than 300mm on the unnamed highway, as shown in Figure 5-33.

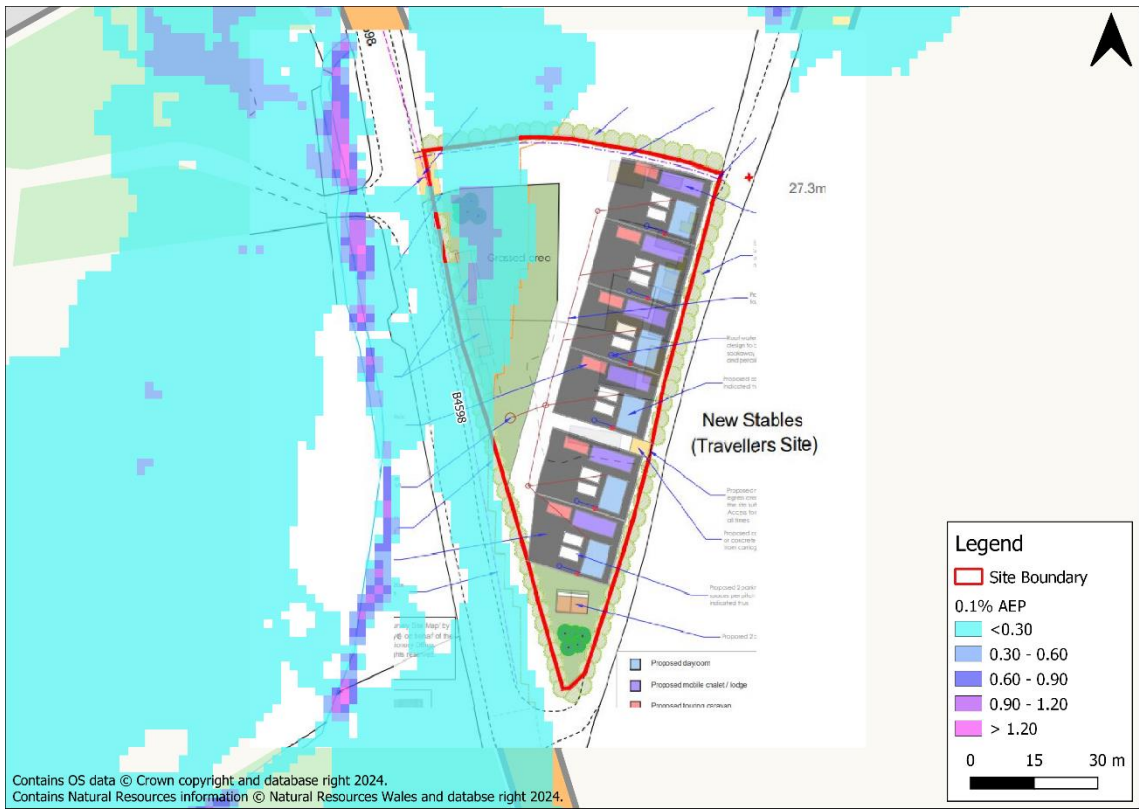


Figure 5-2 National Flood Hazard Mapping - Depth for the 0.1% AEP event

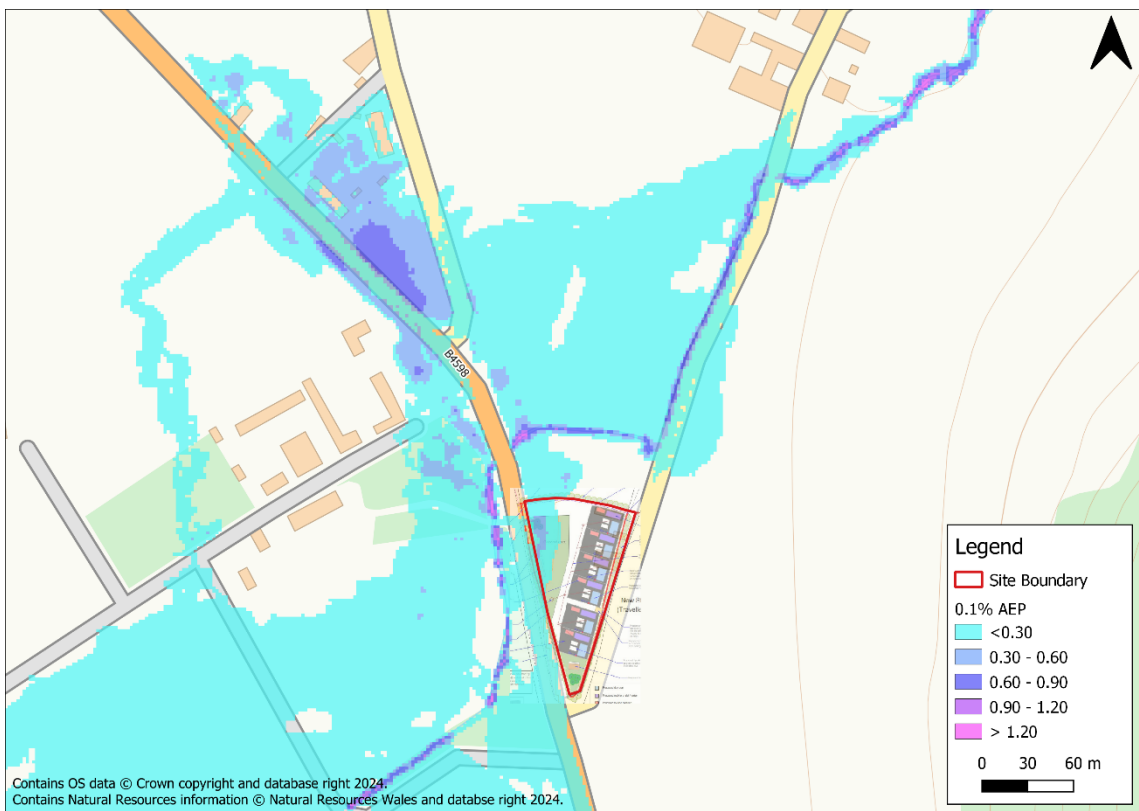


Figure 5-3 National Flood Hazard Mapping - Depth for the 0.1% AEP event, emergency access route

6 Assessment of Acceptability Criteria

6.1 Acceptability Criteria

Table 6-1 assesses the proposed development against the acceptability requirements required by TAN-15 to be met for the Development Zone.

Table 6-1 Acceptability Criteria for TAN-15

TAN-15 Justification Criteria	Comments	Achieved
Developer is required to demonstrate that the site is designed to be flood free for the lifetime of development for a 1 in 100 (0.1% AEP) fluvial flood event including an allowance for climate change in accordance with TAN-15 table A1.14.	The proposed residential area is predicted to be flood free during the 1% AEP plus climate change event. The north-western corner of the site is predicted to flood to shallow depths during the 1% AEP event. The proposed stable blocks are to be raised by 300mm, resulting in the stable block being flood free during the 1% AEP plus climate change event.	✓
The development should be designed so that in an extreme (1 in 1000) chance event there would be less than 600mm of water on access roads and within the property.	A part of the primary access road in the north-west of the site is predicted to flood to shallow depths of less than 300mm at the main access point in the 0.1% AEP event. The proposed stable blocks are predicted to flood up to 8mm. This is within the tolerable conditions of TAN-15. The proposed built development and emergency access point along the eastern boundary is predicted to be flood free during all flood conditions.	✓
No flooding elsewhere.	The proposed development shall not increase flood risk elsewhere. An area of land in the north-west of the site which is predicted to be at risk of fluvial flooding shall remain the same post development, therefore the development shall not impact upon the flood risk to third party land.	✓
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 proposed development site is not served by flood defences.	✓

TAN-15 Justification Criteria	Comments	Achieved
The developer must ensure that future occupiers of development are aware of the flooding risks and consequences.	The developer shall provide future occupiers of the site with information on flood risk in the form of this report. It is advised that site owners sign up to the NRW Flood Warning Service to provide warning in the event of an extreme flood event.	✓
Effective flood warnings are provided at the site.	The proposed development site is located within the Flood Warning Area 197902 - River Usk from Glangrwyne to Newbridge on Usk, and Flood Alert Area 502013 - River Usk in Monmouthshire to Newport.	✓
Escape / evacuation routes are shown by the developer to be operational under all conditions.	The primary access route via the north-west of the site is shown to flood to shallow depths of less than 300mm. The emergency access gate which is proposed along the eastern boundary is shown to be flood free under all conditions. Therefore, emergency access and pedestrian evacuation routes shall be accessible during all flood conditions.	✓
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 residential development shall be flood free under all conditions. The primary access road via the north-west of the site is predicted to flood to shallow depths of less than 300mm. The proposed emergency access route via the eastern boundary of the site is shown to be flood free. Therefore pedestrian and vehicular routes shall be accessible during all flood events.	✓
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 the flood.	Due to the nature of the development structural damage is unlikely.	✓

7 Conclusions

JBA Consulting (JBA) were commissioned by Travelling Ahead to undertake a Flood Consequences Assessment (FCA) to support a six-plot traveller site with associated amenities. This FCA demonstrates the suitability of the proposed development.

The proposed development located near to the village of Llancayo, Monmouthshire and is currently brownfield land used as an unauthorised traveller site. The development proposals include associated car parking, day rooms, stable blocks and vehicle access.

The proposed development is classified as Highly Vulnerable Development by TAN-15 due to its residential nature.

The site is predominantly located in Zone A of the Development Advice Map which represents areas at little or no risk of flooding. A part of the north-west of the site is shown to be located in Zone C2 which classifies areas of the floodplain without significant flood defence infrastructure.

The Flood Map for Planning indicates that an area in the north-west of the site is located within Flood Zone 3 for Rivers. This indicates that there is a greater than 1% AEP chance of flooding in any given year, including climate change. Most of the site is located within Flood Zone 1 of the FMfP for Rivers.

The site is at little or no risk of tidal, groundwater, sewer or reservoir flooding.

The NRW FRAW mapping shows that the site is mostly at very low risk of flooding from Rivers, meaning that there is a less than 0.1% AEP (1 in 1000) chance of fluvial flooding in any given year. An area in the north-west of the site is shown to be at medium risk of flooding. Medium risk indicates between a 1% and 3.3% AEP (1 in 100 to 1 in 30) chance of flooding from fluvial sources.

The NRW FRAW flood risk from Surface Water and Small watercourses mapping shows that the proposed development site is mostly at very low risk of flooding from these sources. This means that there is a less than 0.1% AEP (1 in 1000) chance of flooding in any given year. A small area in the west of the site is shown to be at low risk of flooding from surface water and small watercourses, meaning that there is between a 0.1% - 1% AEP (1 in 1000 to 1 in 100) chance of flooding.

The FRAW dataset uses generalised national scale modelling, which has been used to inform the assessment of fluvial flood risk to the site. National Flood Hazard Mapping fluvial depth extents have been used to assess the maximum flood depths across the site during the medium-risk flooding scenario (1% AEP).

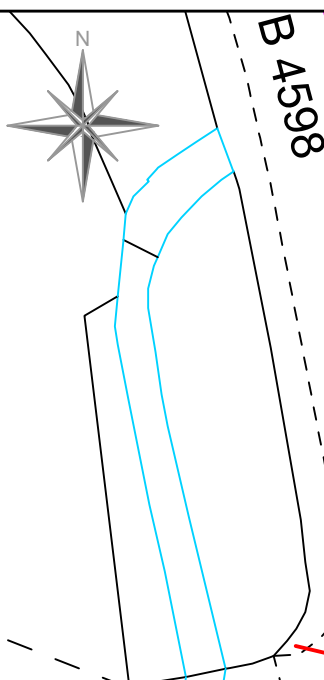
During the 1% AEP event, flooding is predicted to occur in the north-west of the site, extending across part of the access road and the proposed 3 bay stable blocks, to a maximum depth of 300mm. As such, it is recommended that the Finished Floor Level of the stable blocks are raised to be raised by approximately 300mm in order for them to remain

flood free in the 1% AEP event. The proposed built residential development and emergency access gate along the western boundary is predicted to be flood free.

During the 0.1% AEP event, the NRW modelling indicates that flooding in the north-west of the site shall be a maximum depth of 308mm. As such, raising the Finished Floor Level of the stable blocks by 300mm to be flood free in the 1% AEP event will mean that they shall experience minimal flooding of up to 8mm during the 0.1% AEP event, which is well within the tolerable conditions of TAN-15. The proposed built residential development and emergency access gate along the western boundary is predicted to remain flood free.

The proposed development satisfies the requirements of the Acceptability Criteria of TAN-15. Therefore, it is concluded that on the grounds of flood risk, the proposed development site is compliant with the aims and objectives of Planning Policy Wales and TAN-15.

A Development Proposal



Location of 2.0m maximal visibility splays

Proposed amenity area for refuse collection

Proposed 3 bay stable blocks

Proposed touring caravan per pitch indicated thus

Proposed foul drainage to bespoke treatment plant - see EnvirEn report for full phosphatereport and mitigation

Proposed planting of native tree species to replace lost headgebank

Existing tree / hedge to western boundary un-affected and supplemented with planting of native trees to fill any gaps

Proposed hardstanding areas to pitches in permeable material, crushed rolled stone with no fine material present

Magenta dashed line denotes 120m visibility to RHS of new entrance.

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Key

Approximate locations of bollard downlights
500mm high direct down light for pathways and will keep light pollution and glare to an absolute minimum.

Proposed dayroom
Proposed mobile chalet / lodge
Proposed touring caravan
Proposed stable blocks
Existing Public Right of Way (360/60/1) Un-affected
Line of Flood Zone
Proposed Planting and Green Infrastructure Strategy

Specimen trees, 12 - 14cm girth, rootballed:
Acer platanoides (Ap)
Crataegus laevigata 'Rosea Flore Pleneo' 8 - 10cm
Sorbus Aucuparia (Sa)
Sorbus 'Joseph Jack' (SJR)
Sorbus aria 'Lutescens' (SaL)
Tamarix ramossima 'Pink Cascade' 1.25 - 1.5m

Replacement hedgebank

Re-design of Traveller Site with Provision of 6 Bespoke Family Related Pitches with Static, Dayroom & Tourers, 3 Stables/Dog Kennels, Emergency Flood Access/Egress & Ecological Enhancements
New Stables, Land Opposite Llancayo House, Llancayo, Usk, Monmouthshire NP15 1SB

File name AVH_1116	Date 11.03.2024	Scale 1:500	Client Sharmane Jones & Mike Purcell & Family
Drawing Title Proposed Site Plan			Dwg No. 07b

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