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CONSULTING CIVIL & STRUCTURAL ENGINEERS

FLOOD EVACUATION MANAGEMENT PLAN (FEMP)

Former Barclays Bank,
47 High Street,
Merthyr Tydfil,
CF47 8DL

Prepared for: Peter Legg
Project Ref: 24448 – FEMP - 01

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All the Natural Resources Wales (NRW) mapping data used is under special license. Data is current as of **April 2026** and is subject to change.

The information presented and conclusions drawn are based on statistical data and are for guidance purposes only. The study provides no guarantee against flooding of the study site or elsewhere, nor of the absolute accuracy of water levels, flow rates and associated probabilities.

PURPOSE OF THE REPORT

Vale Consultancy has been instructed by *The Client* to prepare a Flood Evacuation Management Plan (FEMP) for Former Barclays Bank, 47 High Street, Merthyr Tydfil, CF47 8DL ("the site").

Following identification of the corresponding planning application referenced P/26/0025, the NRW response dated 18/02/2026 has been considered. This highlights the need to consider safe access and egress and evacuation arrangements during a flood event, in accordance with TAN15.

The aim of the FEMP is to ensure that residents, occupants, employees and visitors are aware of the flood risk, the procedures that should be followed if flooding is expected or has occurred and to reduce the potential risk and consequences of flooding to life and property.

This document includes a Flood Checklist (**Appendix A**). The Flood Plan Coordinator / Flood Response Manager should ensure that a Flood Checklist is completed to ensure that the risk to property and life can be minimised.



1 SITE DETAILS

1.1 Site Location

The approximately 449.8m² site is located at National Grid Reference (NGR) SO 04954 06060 (304954, 206060), bound by High Street to the west of the site. The site is located approximately 209m east of the River Taff. Provision of safe access/egress to and from the site is provided via the adjacent High Street and Masonic Street to the east. Refer to **Figure 1**.



Figure 1: Site Location Satellite Imagery Plan

1.2 Flood Risk Summary

The Flood Map for Planning indicates that the site is located within an area at risk of flooding from fluvial and pluvial sources; however, the NRW recorded flood extents map indicated that there are no records of flooding at or within the vicinity of the site.

Sea (Tidal/Coastal)

The site is located within Flood Zone 1 (Sea). Moreover, the NRW Flood Risk Assessment Wales (FRAW) mapping (Sea) indicates that the site is located approximately 23.4km northeast of the nearest area of high, medium or low risk of flooding.

Therefore, the site is concluded to be at a **Negligible** risk from tidal sources.

Rivers (Fluvial)

The site is located within Flood Zones 2 and 3 (Rivers). Moreover, the NRW Flood Risk Assessment Wales (FRAW) mapping (Rivers) indicates that the site is located in an area of medium and low risk of flooding.

However, it is important to note that in accordance with comments from NRW on planning application P/26/0025, the highly vulnerable element of the scheme (comprising residential use) is located above



ground level. It is therefore considered to be elevated above the potential flood risk and are identified to be at **Low** risk of flooding from rivers. The ground floor comprises a Less Vulnerable development (commercial use), but it considered to be at a higher risk.

Surface Water & Small Watercourses (Pluvial)

The site is located within Flood Zone 1. The adjacent High Street lies within Flood Zones 2 and 3, however food risk is confined to the adjacent road.

Moreover, freely available 1m resolution LiDAR data indicates that adjacent street levels, including the longitudinal slopes of High Street and Masonic Street, generally direct surface water away from the site. This reflects the natural topography, with ground levels higher in the north and lower to the south, limiting potential accumulation at the site as the natural slope is used as an overland flow route.

Moreover, freely available 1 m resolution LiDAR data indicates that adjacent street levels, including the longitudinal gradients of High Street and Masonic Street, generally direct surface water away from the site. This reflects the natural topography, with ground levels higher to the north and falling to the south, thereby limiting potential accumulation at the site and allowing overland flow to follow the natural slope.

In extreme events, water could reach the front entrances, but this risk is mitigated against as the proposed plans (P/26/0025) indicate the front entrance doorway to be elevated above the ground level of the adjacent road. Furthermore, this risk is further mitigated through raised thresholds, flood-resistant doors, commercial flood barriers, and other flood resilience measures. Flow along the southern steps toward the sunken entrance is limited by topography and barriers, resulting in shallow, transient backflow if it occurs. Overall, while national mapping indicates a High risk, the actual site-specific flood risk is considered to be lower.

Overall, the site is concluded to be at a **Low** risk from pluvial sources.

Groundwater

There are no records of groundwater flooding at the site. However, the Local Flood Risk Management Strategy (LFRMS, April 2024) indicates that isolated incidents of groundwater flooding have occurred within the Ynysowen analysis area. Despite this, the receptor counts indicate that the flood risk rating for Ynysowen analysis area is Low.

Therefore, it can be concluded that the site and proposals are at **Low** risk from groundwater flooding.

Artificial sources

The NRW 'Risk of Flooding from Reservoirs' map shows that the site is at risk of flooding from reservoirs. The Beacons reservoir is located approximately 14km to the north-west of the site, the Cantref Reservoir is located approximately 11.4km to the north-west, the Pontsticill (Taf Fechan) reservoir is located approximately 7.5km to the north, and the Llwyn-On reservoir is located approximately 7km to the northwest.

The risk of flooding from reservoirs is extremely unlikely to happen. For instance, all large reservoirs must be inspected and supervised by a reservoir panel engineer, as the enforcement agency the NRW ensure that reservoirs are inspected regularly, and essential safety / maintenance work is carried out.

There are no recorded or known incidents of flooding to the site from sewer flooding. There are no recorded reports or incidents of the DCWW and / or Private drainage network serving the site and surrounding area failing (surcharging).



Therefore, it can be concluded that the probability of flooding from artificial sources is **Low**.



2 PLANNING PROCEDURE

2.1 Roles

Details Regarding the roles and responsibilities of the emergency responders are provided in **Appendix B**.

The Flood Response Manager (FRM) is responsible for all flood preparedness and response. The FRM must:

- Register with the Natural Resources Wales Floodline;
- Maintain a flood kit including key documents and resources. This must be stored safely and securely and monitored quarterly;
- Review the FEMP quarterly to ensure details are up to date. This must specifically include a review of the flood checklist (**Appendix A**);
- Ensure all staff are aware of mandatory flood procedures and evacuation routes;
- Initiate evacuation immediately upon receipt of Flooding Warning or Severe Flood Warning.

2.2 Signing up to Receive Flood Warnings and Alerts

The Flood Plan Coordinator / Flood Response Manager should sign up to receive flood warnings and alerts from NRW via its Floodline service at <https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/?lang=en> or 0345 988 1188.

The Flood Response Manager must sign up to receive flood warnings and alerts from Natural Resources Wales via its Floodline service at <https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/?lang=en> or 0345 988 1188 for the nearest areas. Receiving an alert for the nearest areas would provide a strong indication of potential flooding at the site, giving residents, employees, occupants valuable time to prepare flood defences or evacuate. For this reason, registration is recommended as a precautionary measure.

The Flood Response Manager must also download Flood Alert, a flood warning application for smartphones and laptops, which provides real time updates and information on flood warnings.

Current flood warning information is provided at <https://naturalresourceswales.gov.uk/flooding/?lang=en>.

2.3 Reviewing and Updating the Plan

Apart from the routine checking undertaken by the Flood Plan Coordinator / Flood Response Manager, we would recommend that the FEMP is independently reviewed by the relevant Local Authority Emergency Planning Department to ensure the plan remains effective and adequate.



3 FLOOD WARNINGS

3.1 NRW Flood Warning Areas

The site is located within a Flood Alert Area (River Taff- ref: 103WAFtaf) (**Figure 2**), and Flood Warning area (River Taff at Merthyr Tydfil– ref: 103FWF038).

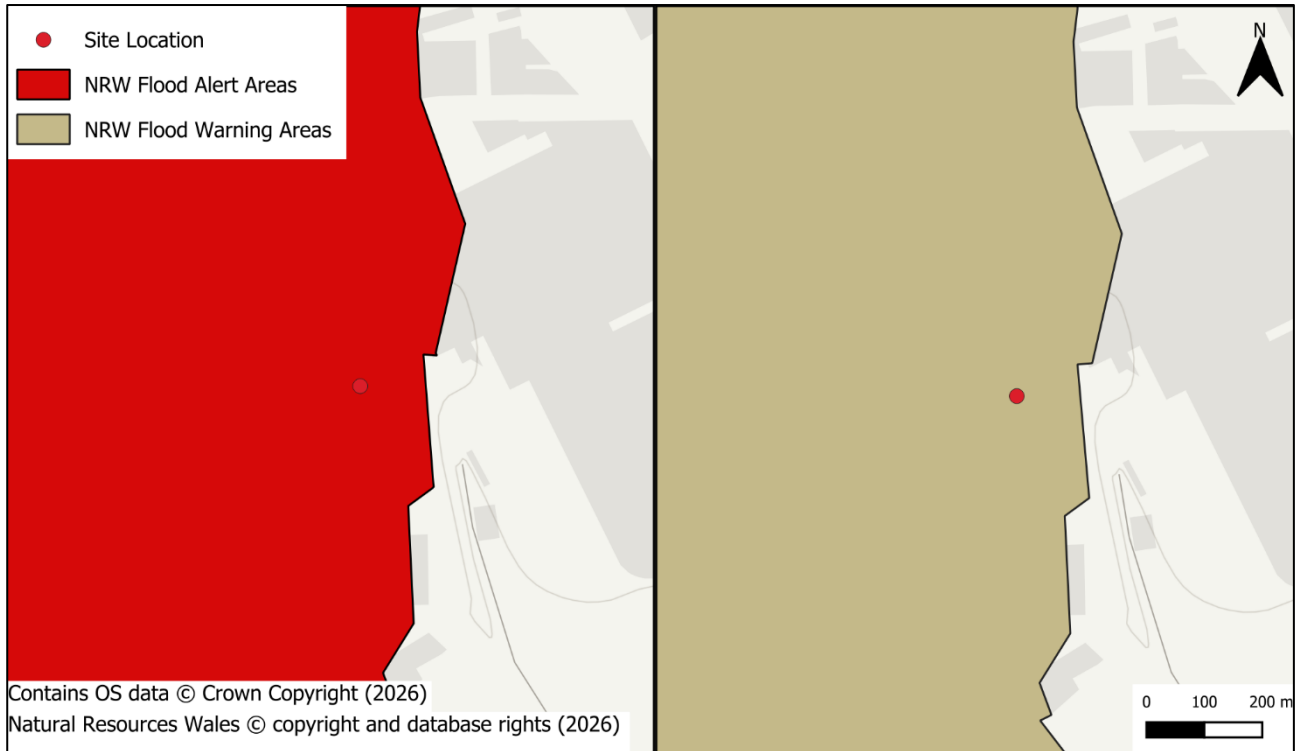


Figure 2: NRW Flood Warning and Alert Areas



3.2 Natural Resources Wales Flood Warning Codes

Natural Resources Wales issues flood warnings using the following codes:



Flood Alert (Flooding is Possible - Be Prepared): Issued when flooding of recreational land, car parks and minor roads from rivers is possible. A Flood Alert covers a relatively large area. The purpose of a Flood Alert is to alert people that flooding is possible and that people residing in and businesses located in areas at risk should be prepared to act on their Flood Plan.



Flood Warning (Flooding is Expected - Immediate Action Required): Issued when flooding of homes and businesses, rail infrastructure and roads is forecast. Flood Warnings cover smaller geographical areas.



Severe Flood Warning (Severe Flooding - Danger to Life): Severe Flood Warnings cover the same geographical area as a Flood Warning. A Severe Flood Warning is issued when actual flooding has occurred posing a significant risk to life and/or widespread disruption to communities. The conditions on the ground expected during a Severe Flood Warning are deep and fast flowing water, potentially with debris.



Warning No Longer in Force (No Further Flooding Expected): Issued when a Flood Warning or Severe Flood Warning is no longer in force and when the risk of flooding has passed, and when river/sea levels have dropped back below the Flood Warning trigger level. It may be the case that there may still be standing floodwater or property flooding, so care will still need to be exercised.



4 FLOOD RESPONSE

The following procedures should only be followed if it is safe to do so. At no time should the Flood Plan Coordinator / Flood Response Manager put their life or anyone's life at risk.

4.1 Flood Response Actions

The Flood Plan Coordinator / Flood Response Manager response (action) to the Natural Resources Wales flood warnings is set out below. It is essential that the below steps are followed.

If a **Flood Alert** is received:

- 1) Monitor the Natural Resources Wales website
- 2) Listen to radio station for weather forecasts
- 3) Get the Flood Kit

If a **Flood Warning** is received:

- 1) Continue to monitor local conditions
- 2) Liaise with emergency responders (referring to **Appendix B** for a list of Level 1 Emergency Responders)
- 3) Inform employees/residents/occupants that flooding is forecast
- 4) Close all uses of the site
- 5) Evacuate the site via designated evacuation route
- 6) Put flood protection in place, if applicable and safe to do so
- 7) Call 999 if in immediate danger

If a **Severe Flood Warning** is received:

- 1) Liaise with emergency responders
- 2) Turn off gas, electricity and water
- 3) The Flood Response Manager must leave the site
- 4) If evacuation of the Site has not yet occurred, instruct employees/residents/occupants to take safe refuge in the designated area (Refer to Section 4.2) if safe to do so.



4.2 Evacuation Route(s) and Safe Refuge

In the event of a flood warning issued by NRW, immediate evacuation of the site is to be initiated in accordance with this FEMP, with the primary response being full evacuation away from the site via one of the following principal routes.

The preferred route is to exit via the rear of the building and proceed in a south-westerly direction towards the A470, to ensuring rapid egress away from the site. If this route is unavailable, an alternative route is to exit via the rear of the building and proceed in a north-easterly direction towards the A4060.

These routes provide access to areas outside the mapped flood risk extents of Flood Zones 2 and 3 (**Figure 3**). These routes are identified as the preferred and safest means of egress during a flood event.

Where immediate evacuation from the site is not feasible, the use of a designated safe refuge is critical. The adjacent Tesco (located approximately 57m to the northeast of the site) has been identified as a suitable potential refuge, as it is located at a significantly higher elevation and is easily accessible by foot. It is the responsibility of the client to establish a formal agreement with the adjacent Tesco prior to occupation, confirming their capacity and willingness to accommodate evacuees in the event of a flood.

The arrangement should explicitly include provisions for vulnerable occupants, including those with mobility or sensory impairments, to ensure safe access and support during an emergency. Details of access routes, arrival procedures, and any necessary assistance must be agreed with the refuge operator and documented in the client-managed site-specific Flood Emergency Management Plan.

Evacuation routes and operational use of the refuge must be reviewed and agreed with the Local Planning Authority by the client to ensure they are practical, reliable, and can be implemented effectively in a flood event. The role of the consultant is to provide recommendations and guidance; it is the responsibility of the client to implement and maintain these arrangements.

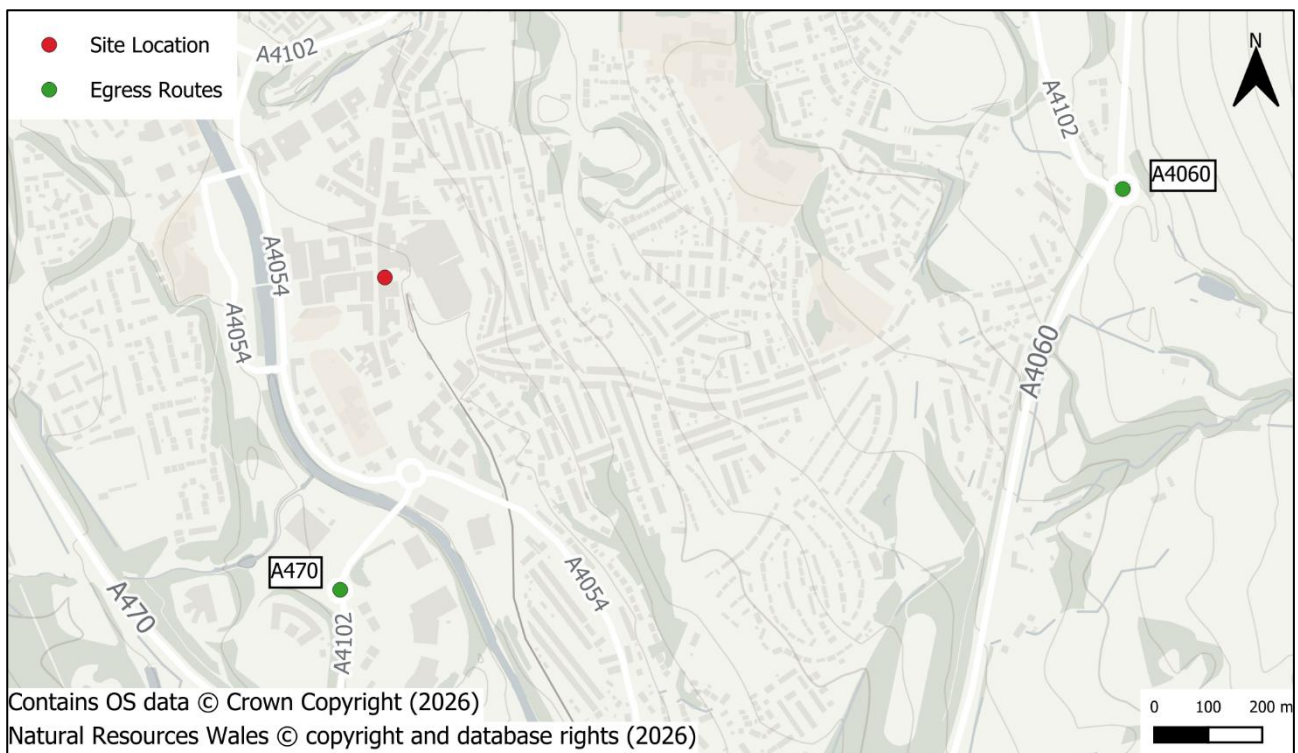


Figure 3: Egress Routes



A flood warning notice detailing the evacuation route must be put on display in the site entrances and communal spaces to ensure residents/employees/occupants are familiar with this. No evacuation of the site should take place when flooding has occurred or is imminent unless advised otherwise by emergency responders.

4.3 Site Re – Occupation

Once floodwater has retreated and the risk has diminished, NRW will issue a “Warnings No Longer in Force” notice.

If any internal flooding of the site has occurred, the Flood Response Manager must arrange for an inspection to determine the extent of any water damage and to determine whether it is safe to re-enter/re-occupy the building.

Care must be taken when re-entering any buildings as floodwater can carry deposits which may pose a hazard or obscure other hazards.

The Flood Response Manager must consult with qualified engineers to turn on public services.

4.4 General Advice

- Do not walk through flowing water
- If requirements are to walk in standing water, ensure you use a tall object (stick or pole) to survey the ground beneath you for open manholes, potholes or ditches.
- Do not drive through flooded areas of > 0.5 m in depth
- Avoid electrical cables
- Look before you step.



APPENDIX A: **Flood Checklist**

Flood Checklist

Address:
Date:

PART 1 – CONTACT DETAILS

Flood Response Manager(s)

Name	Contact Number(s)	Other Information

Category 1 Responders

Responder	Telephone
City and County of Swansea Council	
South Wales Police (non-emergency)	
Swansea Central Fire & Rescue Service	
Floodline	

General Contact List

Contact	Name	Telephone
Electricity Provider		
Gas provider		
Water company		
Telephone provider		
Insurance company		
	Insurance policy number:	

Useful Contacts

Identify people who can help you before, during and after a flood. For example:

- Provision of flood products; provision of water pumping services
- Provision of emergency storage
- Building services

Company	Contact Name	Telephone



PART 2 – PROCEDURES TO PROTECT THE BUILDING

Services

Service Cut-off	Description of Location
Electricity	
Gas	
Water	

Protective Actions

Identify actions to protect the Site, for example:

- Switch off appliances and turn services off at the mains (gas, electricity and water)
- Move anything not fixed down into a safer location
- Install flood protection products
- Weigh down any manhole covers to prevent them floating away and leaving a hazardous hole

Item	Location	Action



APPENDIX B:

Role and Responsibilities of Relevant Agencies

Natural Resources Wales

- Issues flood warnings for flooding from rivers, sea and groundwater
- Receives and records details of flooding incidents
- Monitors the situation and advises other organisations
- Deals with emergency repairs and blockages on main rivers and structures

Local Authority (Merthyr Tydfil County Borough Council)

- Coordinates emergency arrangements
- Maintains safe conditions on the roads
- Puts flood warning signs on the highways
- Organises road closures and traffic diversions
- Clear blockages on highway drains

Lead Local Flood Authority (Merthyr Tydfil County Borough Council)

- Leads the coordination of flood risk management in the district
- Develops local flood risk management strategies for local sources of flooding
- Manages surface water and groundwater flooding
- Maintains a register of structures or features which have a significant effect on flood risk

Town (Merthyr) South Wales Police

- Takes an overall coordination role during an incident

South Wales Fire & Rescue Service

- Responds to all emergency incidents when required
- Assist the public where a need is identified

Dŵr Cymru Welsh Water

- Clear Blockages in public sewers
- May take action to protect property from flooding from public drains and mains supplies

Electricity, Gas and Telecommunications

- Attends to emergencies regarding network connectivity