

Flood Warning Management and Evacuation Plan (FWEP) for
Residential Building at
former Crown Buildings 11 Chepstow Road
Newport Wales NP19 8EA

**THIS MANUAL COULD SAVE YOURS AND OTHERS LIVES – PLEASE READ THROUGH
AND BE FAMILIAR WITH IT**

KEEP THIS MANUAL CLOSE TO HAND

**THE SHORT OF IT – IF YOU ARE IN YOUR HOME STAY THERE AS THE FLOOD WILL BE
LOWER THAN YOUR FLOOR LEVEL ON**

ALWAYS RING 999 AND ASK FOR FIRE SERVICE WHEN IN FLOOD EMERGENCY

Emergency Contacts			
Role	Name	Abbreviation	Telephone
Flood Plan Lead – FILL IN THE NAME AND NUMBER OF THE BUILDING FLOOD LEAD CONTACT			
Natural Resources Wales (for reporting flooding)		NRW	0300 065 3000
Local Authority – Flooding from road gullies and watercourses	Newport City Council	NCC	01633 656656
Sewerage Authority	Welsh Water	WW	0800 085 3968
Floodline			0345 988 1188
Type talk (for hard of hearing)			0345 602 6340
Information on power cuts			105
Gas or Carbon Monoxide emergency			0800 111 999
Road closures in Wales			0300 123 1213
RSPCA (Animal rescues)		RSPCA	0300 1234 999

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1.0 Document Control

This plan is owned, maintained and updated by GN & RB Ltd.

All residents are to inform the above of any changes in circumstances that may materially affect plan content.

The plan must be reviewed:

- On first occupation
- Every 3 years thereafter
- As a result of lessons learnt
- Following change of ownership or modification of the premises or
Following change to the Flood Warning process.

Plan Produced by Simon Dent B Eng (Hons) for Simon Dent Associates

Approved by Keith Wisdom of Keith Wisdom Consulting

2.0 Version Control

Version No:	Comment	Checked by:	Approved by:	Date:
P1	Initial Issue for comment	SDA	KWC	Jul 2024

3.0 Disclaimer

This manual is produced by and within the ownership of Simon Dent Associates for the client

No reproduction of the manual is permitted without the written confirmation of Simon Dent Associates.

4.0 Introduction

This Flood Warning & Evacuation Plan (FWEP) has been produced by Simon Dent Associates (SDA) in respect at the premises of the former Crown Court on Chepstow Road where 56 nr. new residential apartments have been provided on the 1st floor to the 8th floor with commercial space at ground floor.

The FWEP provides a summary of the site's flood risk but importantly provides all relevant information, contact details and procedures to prepare for, respond to and recover from a flood event.

The FWEP gives due regard to the safety of residents and staff, available best practice, relevant legislation and advice provided by the emergency services in Newport District Council.

5.0 Objectives

The FWEP has the following key objectives:

- To establish robust procedures to evacuate or move residents to a place of safety
- To establish clear procedures for the implementation of this plan
- To ensure a safe and controlled evacuation where this is deemed the most appropriate action
- To establish an evacuation route
- Reduce the risk of life and prevent loss to the premises and business and
- To inform residents of the content of this plan.

All residents and relevant staff must make themselves familiar with these arrangements with evacuation drills conducted on an annual basis by the organisations responsible officer.

6.0 Flood Risk

Evacuation route – As the site is relatively flat, there is no safe external space but All persons should find refuge on the upper floors of the building.

External place of refuge – There is no external safe refuge which will be clear of flood water.

When you receive a flood warning, alert the flood lead to instigate the placement of the flood gates which can be found in the ground floor cold water storage tank room.

DO NOT SEEK REFUGE IN MOTOR VEHICLES

Historical Flood data - The site has a low risk of flooding from the River Usk which is defended from extreme events but there is a low risk of flood water affecting the site. [See section 7.0](#)

Warning systems in place – Newport City Council have in place a flood defence barrier across Caerleon Road – [See Appendix A](#)

Natural resources Wales (NRW) communicate flood warnings through their website:

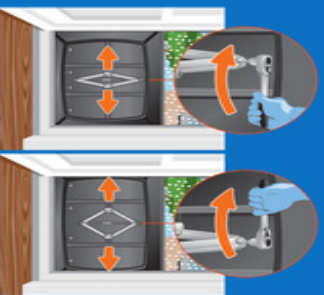
<https://naturalresources.wales/flooding/check-flood-warnings/?lang=en>

There is NO building flood alarm and you must seek your own assurance as to whether a flood warning is in place by reviewing the web sites shown and/or contacting NRW direct in the emergency contacts at the front of this manual.

Flood gates – The site has provided portable flood gates which can be placed in the ground floor entrance and exit doorways. These can be found in the cold water storage tank room. See how they work on next page.

Ground floor windows – Windows which are in direct contact with flood water are flood resilient and will not fail under flood water pressure.

Sub-Station – Although the ground floor electrical sub-station is served with louvre doors, the doors can be opened and a flood gate fitted.



How does it work?

Floodgates comprise of a 25mm thick, boxed steel frame covered by a 7mm thick grey rubberised cover.

A jacking mechanism attached to the rear of the frame allows both the frame and cover to expand telescopically widthways into the walled area (the reveal) immediately in front of the door. Four bolts situated along the bottom edge of the frame are then adjusted to provide a seal along the ground.

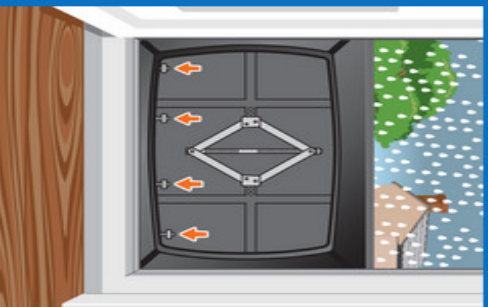
Due to its unique expandable design, Floodgate does not normally need any permanent fittings to the property and does not require pre-drilling of the door frame, making it ideal for use on old and listed buildings.

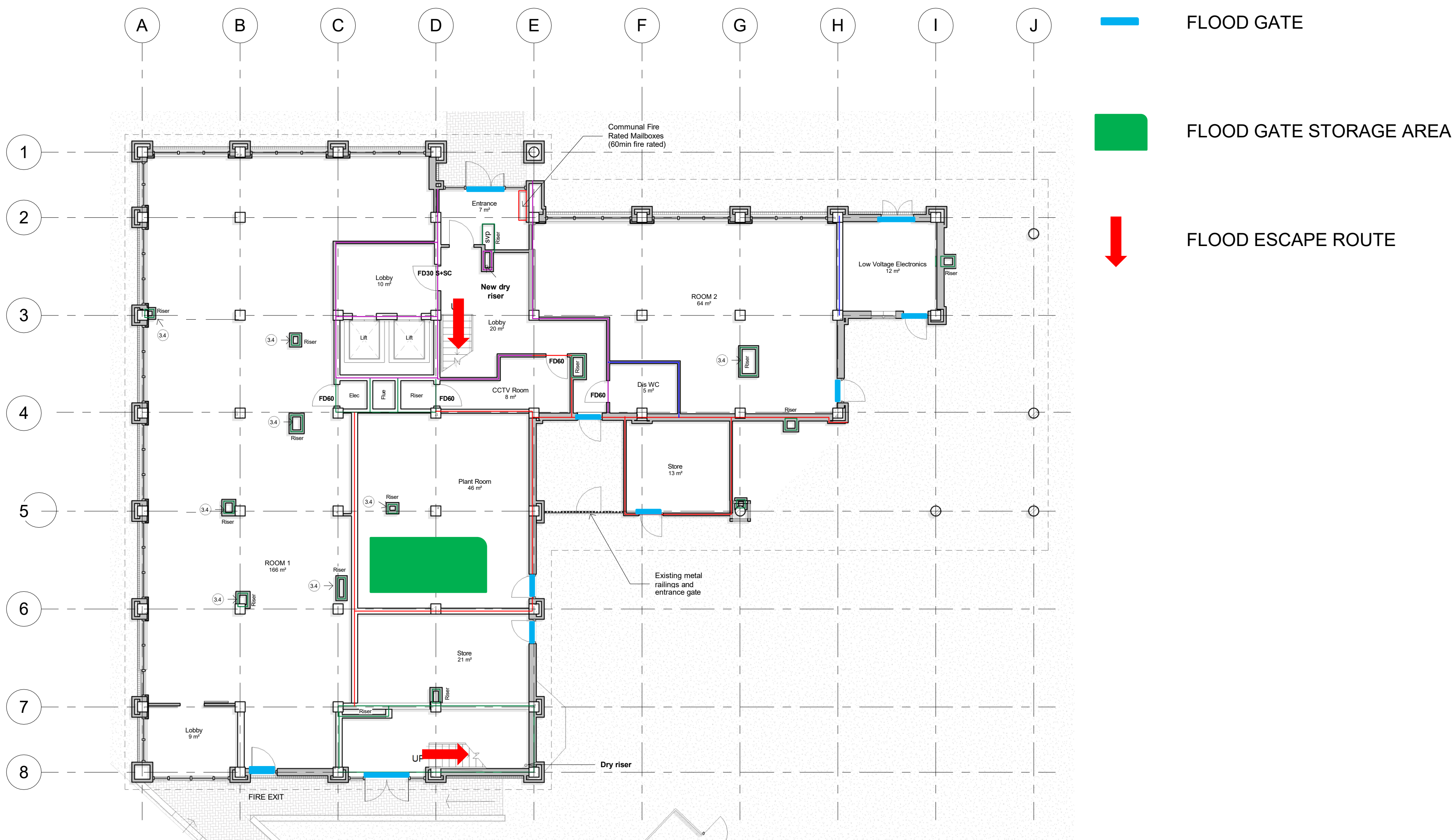
Any remedial work which may be required to square and even the surfaces to help achieve a tight seal, can usually be undertaken by a competent DIYer.

All Floodgates are 68cm (2'3") high – research shows that above this level, water pressure on the outer walls can be powerful enough to cause structural damage.

A single Floodgate provides superior protection than over 50 sandbags yet it weighs less than one! A Floodgate is also a lot easier to store and is completely reusable.

Floodgates have been independently tried and tested to BS1 PAS1188-1:2014.





GA Ground Floor Plan/Footprint of premises – The building is shown above with arrows for emergency and where the flood gates are to be placed
1 : 100

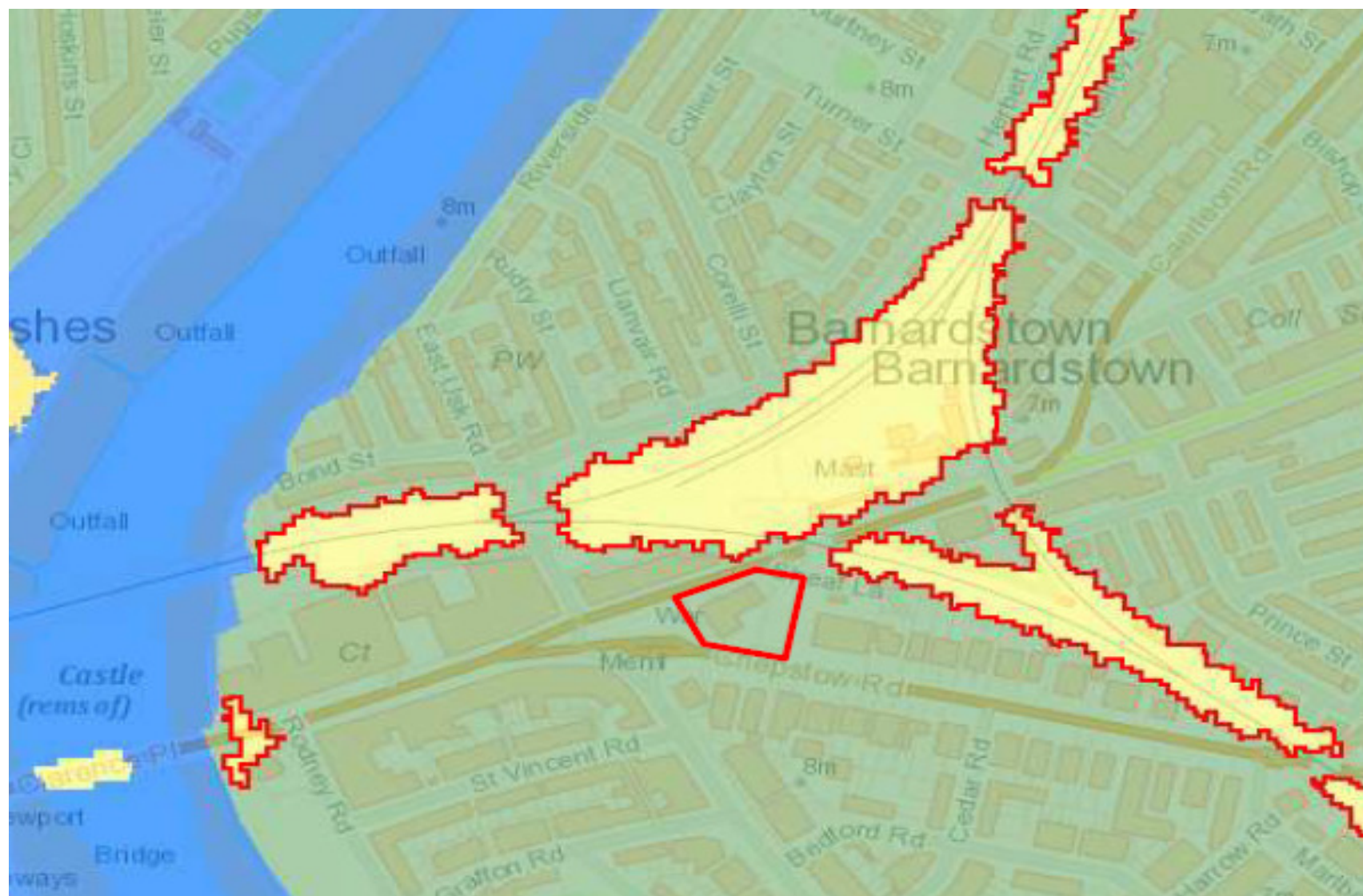
7.0 Flood Risk Exposure

Historical Flood Data: (Attach Flood Risk Map as Appendix 1 to Annex A).

The River Usk is the main source of flooding to this site

Flood Risk Source:	Description of risk	Estimated Flood Depth	Frequency / Probability
Fluvial: The River Usk	The Usk is defended and the site is at low risk from river flooding from either a 1 in 200 or 1 in 1000 year event.	9.69m above ordnance datum – The FFL of the ground floor is 7.45m = 2.24m depth of flood water.	The 2115 future forecast 1 in 1000 year storm event
Tidal:	Low risk due to the river defences	300mm	Low risk due to the river defences
Ground Water	Very low risk	Very low risk	Very low risk
Surface Water	Very low risk	Very low risk	Very low risk
Reservoirs	Llandegfedd reservoir is some 10km north of the site but should it fail will affect the site.	300mm	Very low risk

8.0 Flood Risk Map – Site shown straight red line and green denotes low risk of flooding from sea



9.0 Actions during a flood

Never walk through floodwater. It can sweep you off your feet, lift cars and carry other objects.

Floodwater is often contaminated and it can hide dangers like open manholes.

It is always best to stay away from flood impacted areas.

Do

- Record the location and contact details of all volunteers during activities
- Remain in clear view of others and wear high visibility clothing
- Be aware of hazards caused by high wind speeds, for example falling roof tiles or debris by the coast
- Keep away from floodwater. Wash your hands thoroughly if you touch it

Do not

- Do not carry out any duties as a community volunteer if it is not safe to do so
- Do not work alone, you should always work in pairs or small groups
- Do not stand on or near anything that could get damaged or collapse, for example bridges or riverbanks
- Do not walk or drive through floodwater and avoid being cut off by floodwater
- **Do not attempt to unblock drains, remove drain covers or unblock culverts**

What to do if you are about to flood

- Get your flood kit.
- Prepare to move people and pets in your property to a safe place.
- Move important, sentimental and valuable items.
- Move or weigh down any large or loose items outside or in your garden.
- Put flood gates and other protection equipment in place.
- Turn off gas, electricity, and water.
- Do not touch plugs and other sources of electricity when standing in flood water.
- Move your car to higher ground or outside the flood risk area

Help stop water entering your property

- Block water entering through doors and windows with pillowcases or plastic bags filled with soil or heavy objects.
- Cover airbricks and vents.
- Block sinks, baths and toilets and weigh down with heavy objects.
- Unplug washing machines and dishwashers and disconnect them from the water supply.
- Block water inlet pipes with towels or cloths.

List actions your community could take after a flood.

Here are some examples:

- If your property floods, and you own your property, you should contact your household insurance provider as early as possible. If you rent your home, you should contact your landlord or letting agent. You should also contact your contents insurance provider, as soon as possible
- Take photographs if you are able to do so, so you are able to show what has happened
- Once floodwater has receded each member of the flood group should record their experience of the flood
- Share flood observations with NRW and NCC
- Review effectiveness of the flood evacuation plan

10.0 Evacuation

The decision to evacuate, or take shelter within your premises, will be made by your **flood lead (See front for name and number)** and having due regard to the advice/warnings and instructions of the emergency services.

The decision to evacuate must be made to allow sufficient time to conduct the evacuation before flooding occurs. Flood waters contain hidden dangers and will impede if not prevent a safe evacuation.

Your consideration should include:

- Identification of a venue suitable for the number and vulnerability of your residents
- Access to that venue
- Availability of transport to effect the evacuation
- Staff to control the evacuation and manage the place of refuge and
- Resources to support the needs of residents for up to 7days.

You should not assume that the emergency services will be able to assist you with the evacuation.

Their focus will be directed to those in greatest need.

Where evacuation is not a feasible option you must demonstrate the means of securing their safety and continuing to provide all necessary support within your premises.

In extremis, where your identified solutions are not available, support may be offered by Newport City Council.

11.0 Warning & informing

All residents should sign up to the Flood Warning Direct. You can do this by the following link:

<https://naturalresources.wales/flooding/sign-up-to-receive-flood-warnings/?lang=en>

then pressing the green 'sign for flood warning' link as below

3. What is our flood warning service?

7. How we process your data

4. If you live outside our flood warning areas

Sign up for flood warnings

You'll need:

- the address or location you are registering for
- a phone number you can be contacted on day or night
- an email address

The service is free.

[Sign up for flood warnings >](#)

Or you can sign up by calling the 24-hour Floodline service:

- Telephone: **0345 988 1188**
- Type talk: **0345 602 6340**

[Find out about call charges on gov.uk](#)

Update your details or cancel flood warnings

If you have signed up for flood warnings you can [sign in to your account](#) or call floodline to:

then sign up for the flood warnings by giving postcode NE19 8EA and your email address.

Finally, always keep copies of this FWEP should be accessible to all residents and visitors.

12.0 Familiarisation

The successful implementation of this plan is dependent on all relevant staff and residents being familiar with its content and to have rehearsed, where possible, the procedures contained within the FWEP.

The flood lead should organise these rehearsals.

This plan will be practised / rehearsed every year as carried out by the flood lead.

Flood gates should be placed as a dry run to flooding at least once a year.

Make all known where the flood gates are kept.

Ensure they are maintained and ready for use.

13.0 Recovery

After the trauma of the flood subsides, sit down with a friend or family member and make a list of what the flood has done to your home.

Consider the following:-

- Any loss of building
- Loss of utilities
- Loss of / damage to equipment
- Contamination and cleaning

Keep your insurance contact details to hand by filling them in below

Insurance Company name –

Telephone number –

14.0 Flood Warning Activation Procedures

		What you can do
	What it means - Flooding is possible. Be prepared. When it's used - Two hours to two days in advance of flooding.	Keep an emergency crate in your home for you and your family for at least 7 days containing:- • Drinking water • Food • Batteries Monitor <u>local water levels</u> and the flood forecast on our website.
	What it means - Flooding is expected. Immediate action required. When it's used - ½ an hour to one day in advance of flooding.	Move family, pets and valuables to a safe place. Turn off gas, electricity and water supplies if safe to do so. Put <u>flood protection equipment</u> in place.
	What it means - Severe flooding. Danger to life. When it's used - When flooding poses a significant threat to life.	Stay in a safe place with a means of escape. Be ready should you need to evacuate from your home. Co-operate with the emergency services. Call 999 if you are in immediate danger.
EA Flood Warnings No longer in force	What it means - No further flooding is currently expected in your area. When it's used - When river or sea conditions begin to return to normal.	Be careful. Flood water may still be around for several days. If you've been flooded, ring your insurance company as soon as possible.
Meteorological Office Weather Warnings	Warnings of heavy rainfall. Warnings of severe winter weather e.g. hail, snow, freezing rain.	Consider the impact of this type of weather – e.g. this could lead to surface water flooding, ground water flooding, increased river and sea levels.

Appendix A - Caerleon Road Flood Defence Update

Caerleon Road Flood Defence update

To mitigate against flooding at very high tides, Natural Resources Wales (NRW) has arranged to install, on a temporary basis during the few hours around the peak tide times, a flood defence barrier across Caerleon Road. During the implementation of this barrier, there will be road closures and traffic diversions in place.

Communication of road closures

NRW will communicate potential road closures through the flood alert and warning information on the NRW flood warnings website:

<https://naturalresources.wales/flooding/check-flood-warnings/?lang=en>

The flood alerts will alert people to the potential for Caerleon Road to be closed; these are usually issued 6 to 8 hours ahead of the high tide, with the flood warnings confirming the likely closures within 2 to 3 hours of the high tide.

NRW will work with Newport City Council to give as much prior notice as possible so that the traffic management, road closures and diversionary signage can be installed providing alternative routes for road users during the high tide event. Roads will reopen as soon as possible following the demounting of the barrier system near the river bridge.

Communication of the road closures will be displayed on Newport City Council's website in advance of the implementation of the flood defences.

Flood Defences

The flood defences that span Caerleon Road are deployed when we are forecasting a tidal level of 8.0 metres or higher at the Newport tidal gauge. The defences need to be erected before the tides begin to flood the fields on the left bank and the road will typically be closed over an hour ahead of the peak level and remain closed for an hour afterwards. The closure would be implemented south of the junction between Caerleon Road and New Road. The defences will be removed as soon as water recedes and no longer reaches the foot of the defence.

High Tides and River Levels

The following levels highlight the most likely times and dates for road closures in 2024. All the highlighted dates would require an additional storm surge (see below for explanation) in the region of half a metre and for the surge to coincide with the high tide period.

We recommend that you retain this leaflet for reference purposes.

Newport gauge - Astronomical Peaks Greater than 7.0 Metres

Date	Time (GMT)	Newport (Gwent)
11/02/2024	08:09	7.14
11/02/2024	20:33	7
12/02/2024	08:53	7.37
12/02/2024	21:14	7.07
13/02/2024	09:34	7.31
13/02/2024	21:54	6.82
14/02/2024	10:14	6.89
10/03/2024	07:06	7
10/02/2024	19:30	6.99
11/03/2024	07:50	7.43
11/03/2024	20:12	7.28
12/03/2024	08:31	7.59
12/03/2024	20:51	7.3
13/03/2024	09:10	7.43
13/03/2024	21:27	6.99
14/03/2024	09:48	6.9
08/04/2024	06:41	6.99
08/04/2024	19:05	6.96
09/04/2024	07:25	7.3
09/04/2024	19:45	7.17
10/04/2024	08:05	7.35
10/04/2024	20:23	7.15
11/04/2024	08:44	7.13
11/04/2024	21:00	6.83
24/07/2024	21:27	6.8
20/08/2024	19:45	7.04
21/08/2024	08:08	6.89
21/08/2024	20:27	7.32
22/08/2024	08:48	7.04
22/08/2024	21:08	7.35
23/08/2024	09:28	6.91
23/08/2024	21:48	7.04
17/09/2024	18:38	6.97
18/09/2024	07:03	6.92
18/09/2024	19:23	7.42
19/09/2024	07:45	7.23
19/09/2024	20:04	7.6
20/09/2024	08:24	7.29
20/09/2024	20:44	7.5
21/09/2024	09:02	7.07

21/09/2024	21:23	7.05
16/10/2024	18:12	7
17/10/2024	06:36	6.93
17/10/2024	18:57	7.35
18/10/2024	07:18	7.18
18/10/2024	19:39	7.43
19/10/2024	07:57	7.2
19/10/2024	20:19	7.25
20/10/2024	08:36	6.96
16/11/2024	19:15	6.84

Nb all times are GMT – do not account for BST.
Orange shading indicates Flood Alerts likely as a minimum.

High storm surges are associated with areas of low pressure that bring poor weather typically over winter months. The main cause of a storm surge is high winds pushing the sea water towards the coast, causing it to pile up there. There is also a smaller contribution from the low pressure at the centre of the storm "pulling" the water level up, by about 1 cm for every 1 millibar change in pressure.

The diagram below shows the difference surge can make to the tide:



Storm surge occurs near high tide



Storm surge occurs near low tide

Past Events

In the past there have been many significant tidal surges, which have not coincided with high tides and as such have not caused significant issues for the coastal area in South Wales. However, any of the surges below on top of a 7 metre tide would be likely to cause significant disruption and flood related issues.

Top 10 Surges in last 15 years

<i>Date</i>	<i>Surge (m)</i>
1997/02/24 20:45	1.747
2006/12/03 05:15	1.545
1998/01/04 11:15	1.468
1995/02/16 19:45	1.463
2005/01/08 04:45	1.180
2004/10/20 23:30	1.176
1999/01/03 07:45	1.116
1997/02/19 18:00	1.086
1996/10/28 20:15	1.075
1997/12/25 15:30	1.074

Going Forward

Tide times can be predicted in advance; therefore, this document will be provided annually highlighting the most likely times and dates for road closures. We recommend you keep hold of each document for reference.

Further information

Newport City Council: civil.contingencies@newport.gov.uk

Natural Resources Wales: Warning.Informing_South@cyfoethnaturiolcymru.gov.uk