

## HOLCOMBE MILL, RAMSBOTTOM

FLOOD PLAN

Final Report v1.0

**November 2020**

|               |                                                                     |
|---------------|---------------------------------------------------------------------|
| Report Title  | <b>Holcombe Mill, Ramsbottom</b><br>Flood Plan<br>Final Report v1.0 |
| Client        | Eccleston Homes Ltd                                                 |
| Date of issue | 18 November 2020                                                    |

|                             |                                                             |
|-----------------------------|-------------------------------------------------------------|
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## 1 INTRODUCTION

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### 1.1 Purpose of Report

Weetwood Services Ltd ('Weetwood') has been instructed by Eccleston Homes Ltd to prepare a Flood Plan for Holcombe Mill, Ramsbottom.

The aim of the Flood Plan is to ensure that occupants and visitors at the site are aware of the flood risk, the procedures that should be followed in the event that flooding is expected or has occurred and to reduce the risk to property and life.

### 1.2 Structure of the Report

The report is structured as follows:

- |                  |                                                                                                                                                                                                                                                                                        |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Section 1</b> | Introduction and report structure                                                                                                                                                                                                                                                      |
| <b>Section 2</b> | Provides background information relating to the site and the potential risk of flooding                                                                                                                                                                                                |
| <b>Section 3</b> | Summarises the roles and responsibilities for flood response and management                                                                                                                                                                                                            |
| <b>Section 4</b> | Describes the flood warning codes used by the Environment Agency when issuing flood warnings                                                                                                                                                                                           |
| <b>Section 5</b> | Sets out the actions that should be taken by the Flood Plan Coordinator and nominated residents in the event that a Flood Alert or Flood Warning is issued by the Environment Agency, the recommended evacuation route, re-occupation process, and general advice regarding floodwater |

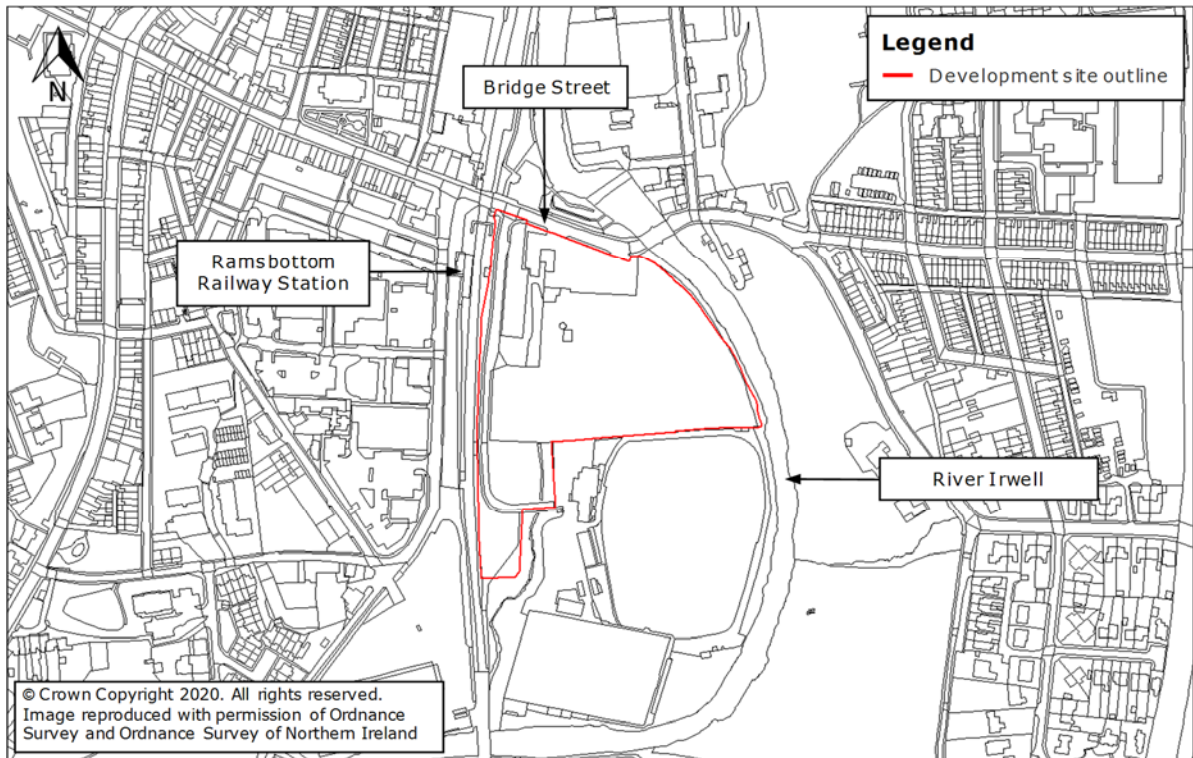
### 1.3 Relevant Documents

The Flood Plan has been informed by the Weetwood Flood Risk Assessment (August 2020) that accompanied the planning application at the site (application ref: 65844).

## 2 SITE DETAILS

### 2.1 Site Location

The site is located south of Bridge Street and west of the River Irwell, at Ordnance Survey National Grid Reference SD 793 167, as shown in **Figure 1**. Access and egress is provided via Bridge Street along the sites northern boundary.



**Figure 1: Site Location**

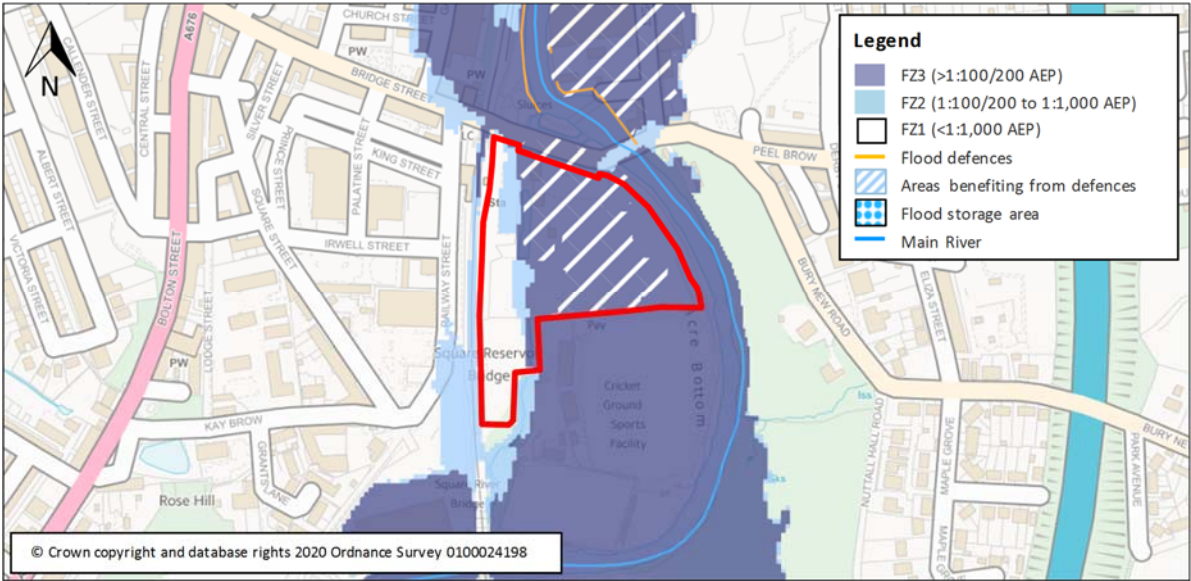
### 2.2 Flood Risk

The Flood Map for Planning (**Figure 2**) shows a large portion of the site to be located in flood zone 3 and flood zone 2, with land along the sites western boundary shown to be located in flood zone 1.

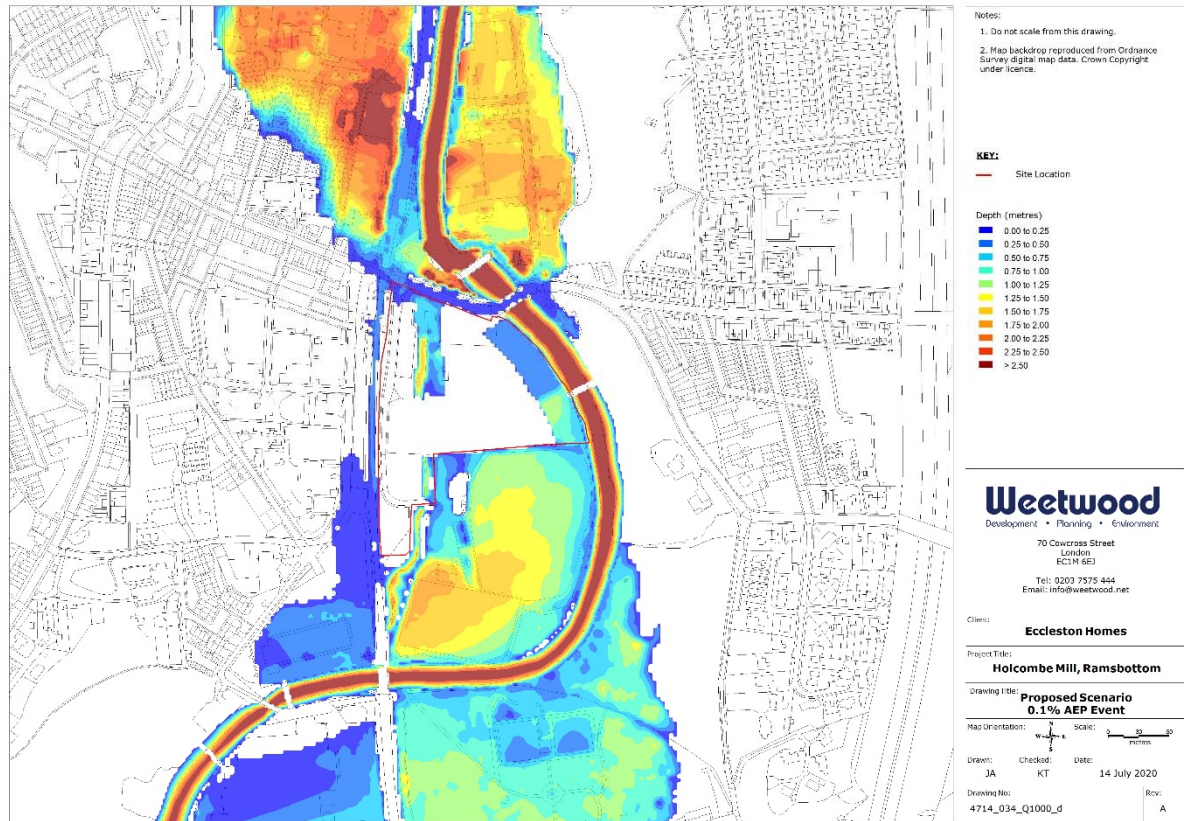
The zones shown on the Flood Map for Planning do not take account of the flood mitigation measures incorporated into the design of the site, which are summarised as follows:

- Site access roads raised above the peak 1 in 1,000 annual probability event flood levels;
- New residential development plots raised above the peak 1 in 100 plus climate change (70% allowance) annual probability event flood levels;
- Finished floor levels of the newly constructed residential dwellings set 0.15 m above peak 1 in 100 plus climate change (70% allowance) annual probability event flood levels;
- Finished floor levels of the residential dwellings within the refurbished buildings raised above the peak 1 in 100 plus climate change (35% allowance) annual probability event flood levels.

The modelled flood extent and depths at the developed site in a 1 in 1,000 annual probability event is presented by **Figure 3**. Flooding from the River Irwell is shown to occur along the eastern boundary of the site and in the vicinity of the mill pond, with a flood depth of 0.32 m predicted within the refurbished residential dwellings.



**Figure 2: Flood Map for Planning**  
Source: gov.uk website; Accessed: 9 November 2020



**Figure 3: Proposed Scenario – 1 in 1,000 Annual Probability Event**

The other potential sources of flood risk to the site, as assessed within the Flood Risk Assessment, are detailed in **Table 1**.

**Table 1: Potential Sources of Flood Risk**

|                                                        |                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Surface Water</b>                                   | The Flood Risk from Surface Water map indicates that the majority of the site is at a very low risk of flooding. Areas of high risk generally appear to be restricted to the pond and channel associated with the mill race.                                                                                                                                |
| <b>Reservoirs, Canals and other artificial sources</b> | The Flood Risk from Reservoirs map indicates that the site may be at risk from reservoir flooding. However, all large reservoirs are regularly inspected by reservoir panel engineers with essential safety work carries out. As detailed on the gov.uk website, reservoir flooding is therefore extremely unlikely to occur.                               |
| <b>Groundwater</b>                                     | According to the British Geological Survey Groundwater Flooding Hazard map the susceptibility to groundwater flooding at the site is moderate to significant. However, the intrusive ground investigation found groundwater to be a minimum of 2.6 m below ground level. On this basis, the risk of groundwater flooding at the site is assessed to be low. |

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## 3 PLANNING AND PROCEDURES

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### 3.1 Roles and Responsibilities

Details regarding the roles and responsibilities of the emergency responders are provided in **Appendix A**. The responsibility for flood preparedness and response rests with a Flood Plan Coordinator (the Site Management Company) and a nominated resident within each household.

The general responsibilities of the Flood Plan Coordinator and nominated residents are as follows:

- Register with the Environment Agency Floodline service.
- Prepare a flood kit including key documents, torch, mobile phone, waterproof clothing, and first aid kit. This should be stored in a safe place and periodically checked.

The responsibilities specific to the Flood Plan Coordinator are as follows:

- Ensure that the nominated resident for each dwelling has been provided with a copy of the Flood Plan and understands their role during a flood event.
- Review the Flood Plan quarterly to ensure details are up to date. This should specifically include a review of the flood checklist (**Appendix B**) to ensure that all details are correct, particularly contact names and telephone numbers.

The actions to be taken by the Flood Plan Coordinator and the nominated residents when a flood is expected are outlined in **Section 5**.

### 3.2 Signing up to Receive Flood Warnings

The Flood Plan Coordinator and nominated resident for each dwelling should sign up to receive flood warnings from the Environment Agency via its Floodline service (<https://www.gov.uk/sign-up-for-flood-warnings> or 0345 988 1188).

It is recommended that the Flood Plan Coordinator and nominated resident also downloads Flood Alert, a flood warning application for smartphones which provides real time updates on flood warnings.

Current flood warning information is provided at <https://www.gov.uk/check-flood-risk>. The site also provides a live flood warning map and five day flood forecast information.

### 3.3 Reviewing and Updating the Plan

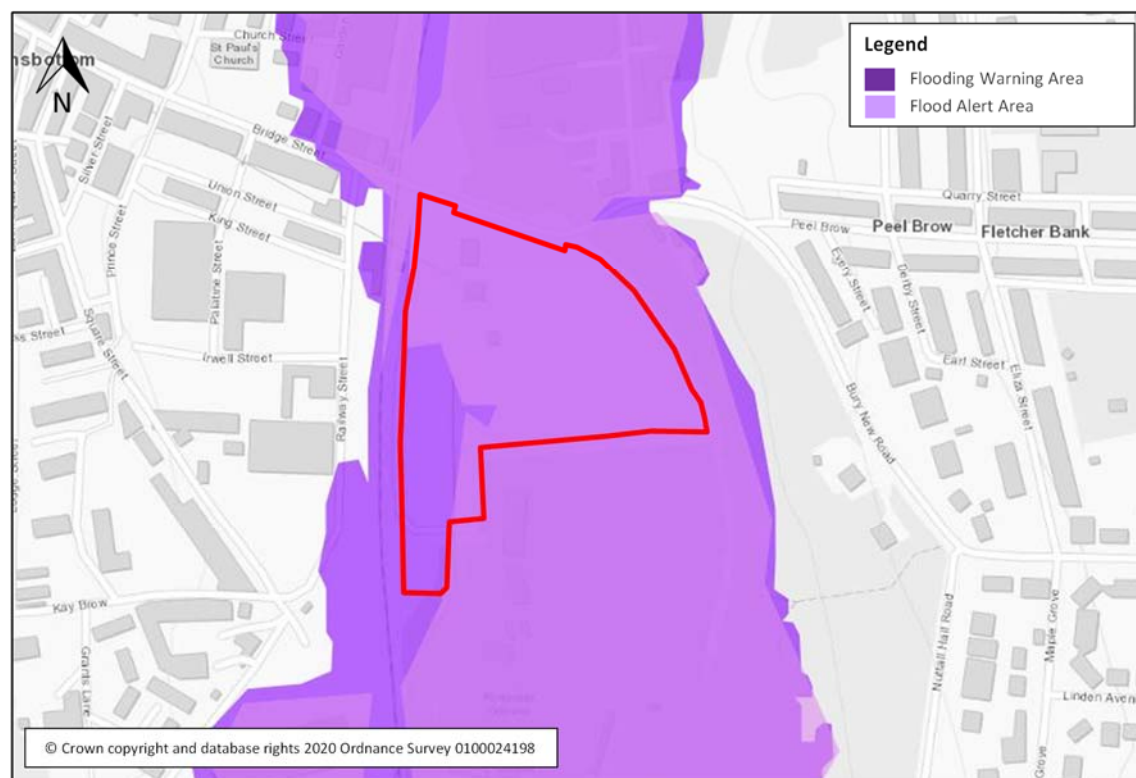
Aside from the routine checking undertaken by the Flood Plan Coordinator, it is recommended that the Flood Plan is independently reviewed annually to ensure that the plan is effective and to provide any updates to the procedures which may be required, for example due to changes in the Environment Agency's flood warning procedures for the local area.

## 4 FLOOD WARNINGS

### 4.1 Environment Agency Flood Alert and Flood Warning Areas

Flood Alerts are issued for large areas of floodplain and can cover an entire river catchment. They provide an early notification of possible flooding. Flood Warnings are targeted at specific communities at risk.

The site is included within an Environment Agency flood alert area and flood warning area (**Figure 4**).



**Figure 4: Flood Alert and Warning Areas**

Source: gov.uk website; Accessed: 9 November 2020

### 4.2 Environment Agency Flood Warning Codes

If flooding is forecast, the Environment Agency issues warnings using the set of codes presented in **Table 2** and summarised below.

The specific actions that the Flood Plan Coordinator and nominated residents should undertake in the event that an alert or warning is received are set out in **Section 5** of this document.

#### 4.2.1 Flood Alert (Flooding is Possible – Be Prepared)

A Flood Alert is 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.

#### 4.2.2 Flood Warning (Flooding is Expected – Act Now)

A Flood Warning is issued when flooding of homes and businesses, rail infrastructure and roads is forecast. Flood Warnings cover smaller geographical areas.

#### 4.2.3 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.

#### 4.2.4 Warning No Longer in Force (No Further Flooding Expected)

The Environment Agency uses a Warnings No Longer in Force code when a Flood Warning or Severe Flood Warning is no longer in force. The Warnings No Longer in Force code is issued when the risk of flooding has passed, and when river 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.

**Table 2: Flood Warning Codes**

| Code                                                                                | Meaning                                                  |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|
|   | Flooding is possible<br><i>Be prepared</i>               |
|  | Flooding is expected<br><i>Immediate action required</i> |
|  | Severe flooding<br><i>Danger to life</i>                 |
|  | No further flooding in your area is currently expected   |

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## 5 RESPONSE TO FLOOD WARNING AND FLOODING

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The following procedures should only be followed if it is safe to do so. At no time should the Flood Plan Coordinator or nominated residents put their life or anyone else's life at risk. Advice provided by emergency responders including the emergency services, Environment Agency and Bury Metropolitan Borough Council should be adhered to.

### 5.1 Flood Plan Coordinator

The Flood Plan Coordinator's response to the EA flood warning codes received via Floodline is set out below.

**If a FLOOD ALERT is received**, the Flood Plan Coordinator should, if possible:

1. Monitor the river level.
2. Monitor the Environment Agency's website.
3. Get the flood kit.

**If a FLOOD WARNING is received**, the Flood Plan Coordinator should, if possible:

1. Liaise with emergency responders.
2. Continue to monitor local conditions.
3. If on-site, evacuate the site (refer to **Section 5.3**).
4. Call 999 if in immediate danger.

**If a SEVERE FLOOD WARNING is received**, the Flood Plan Coordinator should:

5. If on-site, take refuge within the residential blocks.
6. Call 999 if in immediate danger.

### 5.2 Nominated Residents

Nominated resident's response to the EA flood warning codes received via Floodline is set out below.

**If a FLOOD ALERT is received**, the nominated residents should:

1. Monitor the river level.
2. Monitor the Environment Agency's website.
3. Get the flood kit.

**If a FLOOD WARNING is received**, the nominated residents should:

1. Advise residents / visitors that flooding is forecast and to await further instructions.
2. Continue to monitor the river level.
3. Liaise with the Environment Agency and emergency responders.
4. Turn off gas, electricity and water services at the mains if safe to do so.
5. Evacuate the site and ensure that other residents / visitors evacuate the site via the designated evacuation route (refer to **Section 5.3**) if advised to do so by emergency responders.
6. Call 999 if in immediate danger.

**If a SEVERE FLOOD WARNING is received**, all residents/visitors should:

1. Take refuge and ensure that other residents / visitors take refuge.
2. Call 999 if in immediate danger.
3. No evacuation should take place when flooding has occurred or is imminent unless advised otherwise by emergency responders.



- Stay away from power lines - electrical current can travel through water.
- Look before you step - after a flood, the ground and floors can be covered with debris, which may include broken bottles, sharp objects and nails. Floors and stairs covered with mud and debris can be slippery.
- Avoid contact with floodwater.

## APPENDIX A

### Roles and Responsibilities of Relevant Agencies

#### Environment Agency

- Issues flood warnings for flooding from rivers, the 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 own structures;
- Responds to pollution incidents;
- Advises on waste disposal issues.

#### Bury Metropolitan Borough Council

- Co-ordinates emergency arrangements;
- Maintains safe conditions on the roads;
- Puts flood warning signs on the highway;
- Organises road closures and traffic diversions;
- Clears blockages on highway drainage systems;
- May take action to protect property from flooding by water from the highway where there is a failure of the highway drainage system.

#### Lead Local Flood Authority (Bury Metropolitan Borough Council)

- Leads the co-ordination 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 in its area;
- Investigates flooding incidents in its area.

#### Greater Manchester Police

- Takes an overall co-ordination role during an incident.

#### Greater Manchester Fire & Rescue Service

- Responds to all emergency incidents as required;
- Assists the public where a need is identified and the use of Fire Service personnel and equipment is required.

#### United Utilities

- Clears blockages in public sewers;
- May take action to protect property from flooding by water from the public water mains or discharges from the public sewerage systems.

#### Electricity, Gas and Telecommunication Companies

- Attends to emergencies relating to its service at properties where life is at risk as a result of flooding;
- Attends to flooding emergencies at its own serviced installations.

## **APPENDIX B**

### **Flood Checklist**

## Flood Checklist

Address:

Date:

### PART 1 – CONTACT DETAILS

#### Flood Plan Coordinator(s)

| Name | Contact Number(s) | Other Information |
|------|-------------------|-------------------|
|      |                   |                   |
|      |                   |                   |

#### Nominated Residents for Each Dwelling

| Name | Contact Number(s) | Other Information |
|------|-------------------|-------------------|
|      |                   |                   |
|      |                   |                   |
|      |                   |                   |
|      |                   |                   |
|      |                   |                   |

#### Category 1 Responders

| Responder                                       | Telephone     |
|-------------------------------------------------|---------------|
| Bury Metropolitan Borough Council               | 0161 253 5000 |
| Greater Manchester Police (non-emergency calls) | 101           |
| Greater Manchester Fire & Rescue Service        | 0800 555 815  |
| Floodline                                       | 0345 988 1188 |

#### 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 C**

### **Flood Warning Notice**

# FLOOD WARNINGS

## Holcombe Mill, Ramsbottom

This site lies within an area at risk of flooding. If flooding is expected, the Environment Agency will issue a flood warning. The sites **Flood Plan Coordinator** or a **nominated resident** will advise which of the following flood warning codes has been issued and how to proceed. Listen for announcements and obey instructions.

### Flood Warning Information

- **Call Floodline** on 0345 988 1188
- **Download** the Flood Alert app
- **Visit** [www.gov.uk/check-if-youre-at-risk-of-flooding](http://www.gov.uk/check-if-youre-at-risk-of-flooding)

### Site Contact

#### Flood Plan Coordinator

Name:

Telephone:



Flooding is possible - be prepared.

Listen to instructions from the sites nominated residents.

Prepare your belongings to leave the site if necessary.



Flooding is expected - immediate action required.

Continue to listen to instructions from the sites nominated residents and evacuate the site if advised and safe to do so.

Call 999 if in immediate danger.



Severe flooding – danger to life.

Take refuge within a building. No evacuation should take place when flooding has occurred or is imminent unless advised otherwise by emergency responders.

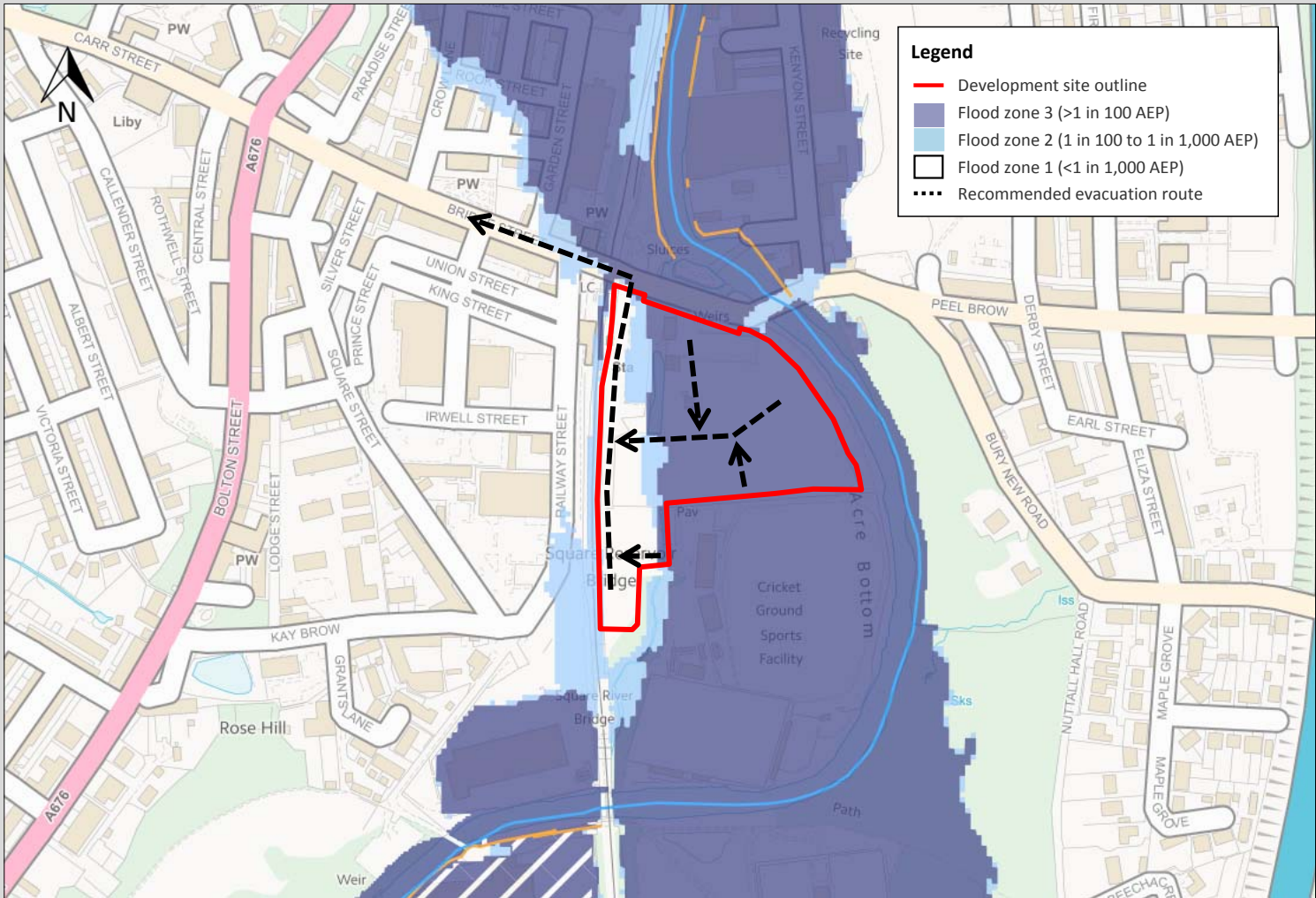
Call 999 if in immediate danger.



No further flooding is currently expected in your area.

Be careful, areas of flood water may still be present on site.

### Recommended Evacuation Route



### General Advice

- Always follow the advice of the Emergency Services
- Don't walk through flowing water – hallow fast moving water can knock you off your feet.
- If you have to walk in standing water, use a pole or stick to ensure that you do not step into deep water, open manholes or ditches
- Don't drive through flooded areas – half a metre of floodwater can carry a car away
- Stay away from power lines – electrical current can travel through water
- Look before you step - after a flood the ground and floors can be covered with debris, which may include sharp objects. Floors and stairs covered with mud and debris can be slippery.

This is a summary of the information contained in the Flood Plan (November 2020).

Delivering client focussed services from offices in Leeds, London and Mold

Flood Risk Assessments  
Flood Consequences Assessments  
Surface Water Drainage  
Foul Water Drainage  
Environmental Impact Assessments  
River Realignment and Restoration  
Water Framework Directive Assessments  
Environmental Permit and Land Drainage Applications  
Sequential, Justification and Exception Tests  
Utility Assessments  
Expert Witness and Planning Appeals  
Discharge of Planning Conditions

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