Open Government Licence
for public sector information

You are encouraged to use and re-use the Information that is available under this licence freely and flexibly, with only a few conditions.

Using Information under this licence

Use of copyright and database right material expressly made available under this licence (the 'Information') indicates your acceptance of the terms and conditions below.

The Licensor grants you a worldwide, royalty-free, perpetual, non-exclusive licence to use the Information subject to the conditions below.

This licence does not affect your freedom under fair dealing or fair use or any other copyright or database right exceptions and limitations.

You are free to:

- copy, publish, distribute and transmit the Information;
- adapt the Information;
- exploit the Information commercially and non-commercially for example, by combining it with other Information, or by including it in your own product or application.

You must (where you do any of the above):

- acknowledge the source of the Information in your product or application by including or linking to any attribution statement specified by the Information Provider(s) and, where possible, provide a link to this licence;

If the Information Provider does not provide a specific attribution statement, you must use the following:

Contains public sector information licensed under the Open Government Licence v3.0.

If you are using Information from several Information Providers and listing multiple attributions is not practical in your product or application, you may include a URI or hyperlink to a resource that contains the required attribution statements.

These are important conditions of this licence and if you fail to comply with them the rights granted to you under this licence, or any similar licence granted by the Licensor, will end automatically.

Exemptions

This licence does not cover:

- personal data in the Information;
- Information that has not been accessed by way of publication or disclosure under information access legislation (including the Freedom of Information Acts for the UK and Scotland) by or with the consent of the Information Provider;
- *departmental or public sector organisation logos, crests and the Royal Arms except where they form an integral part of a document or dataset;*
- military insignia;
- third party rights the Information Provider is not authorised to license;
- other intellectual property rights, including patents, trade marks, and design rights; and
- identity documents such as the British Passport

Non-endorsement

This licence does not grant you any right to use the Information in a way that suggests any official status or that the Information Provider and/or Licensor endorse you or your use of the Information.

No warranty

The Information is licensed 'as is' and the Information Provider and/or Licensor excludes all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law.

The Information Provider and/or Licensor are not liable for any errors or omissions in the Information and shall not be liable for any loss, injury or damage of any kind caused by its use. The Information Provider does not guarantee the continued supply of the Information.

Governing Law

This licence is governed by the laws of the jurisdiction in which the Information Provider has its principal place of business, unless otherwise specified by the Information Provider.

Definitions

In this licence, the terms below have the following meanings:

'Information' means information protected by copyright or by database right (for example, literary and artistic works, content, data and source code) offered for use under the terms of this licence.

'Information Provider' means the person or organisation providing the Information under this licence.

'Licensor' means any Information Provider which has the authority to offer Information under the terms of this licence or the Keeper of Public Records, who has the authority to offer Information subject to Crown copyright and Crown database rights and Information subject to copyright and database right that has been assigned to or acquired by the Crown, under the terms of this licence.

'Use' means doing any act which is restricted by copyright or database right, whether in the original medium or in any other medium, and includes without limitation distributing, copying, adapting, modifying as may be technically necessary to use it in a different mode or format.

'You', 'you' and 'your' means the natural or legal person, or body of persons corporate or incorporate, acquiring rights in the Information (whether the Information is obtained directly from the Licensor or otherwise) under this licence.

About the Open Government Licence

The National Archives has developed this licence as a tool to enable Information Providers in the public sector to license the use and re-use of their Information under a common open licence. The National Archives invites public sector bodies owning their own copyright and database rights to permit the use of their Information under this licence.

The Keeper of the Public Records has authority to license Information subject to copyright and database right owned by the Crown. The extent of the offer to license this Information under the terms of this licence is set out in the UK Government Licensing Framework.

This is version 3.0 of the Open Government Licence. The National Archives may, from time to time, issue new versions of the Open Government Licence. If you are already using Information under a previous version of the Open Government Licence, the terms of that licence will continue to apply.

These terms are compatible with the Creative Commons Attribution License 4.0 and the Open Data Commons Attribution License, both of which license copyright and database rights. This means that when the Information is adapted and licensed under either of those licences, you automatically satisfy the conditions of the OGL when you comply with the other licence. The OGLv3.0 is Open Definition compliant.

Further context, best practice and guidance can be found in the UK Government Licensing Framework section on The National Archives website.

OGL

Go to the version 1 of the licence.
Go to the version 2 of the licence.
Go to the Welsh version of the licence.

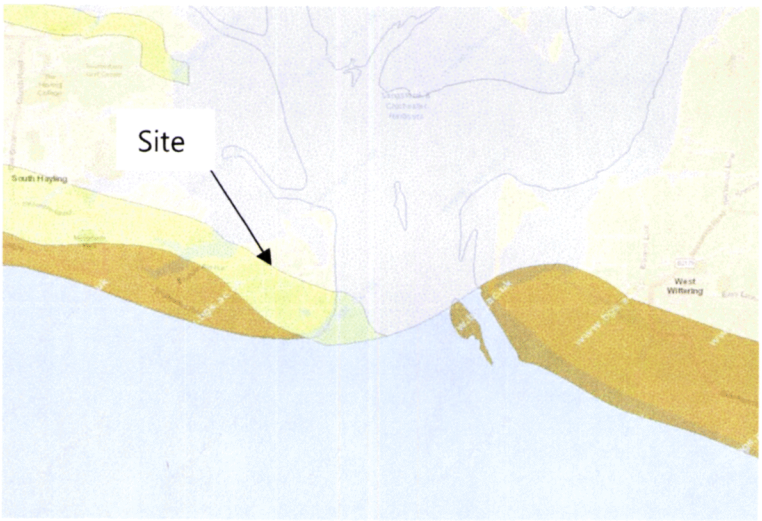
Appendix H

British Geological Survey Records



Superficial deposits

- BLOWN SAND - SAND
- BEACH AND TIDAL FLAT DEPOSITS (UNDIFFERENTIATED) - CLAY, SILT, SAND AND GRAVEL
- HEAD - CLAY, SILT, SAND AND GRAVEL
- RAISED BEACH DEPOSITS, 1 - SAND AND GRAVEL
- RAISED MARINE DEPOSITS - SAND AND GRAVEL
- RIVER TERRACE DEPOSITS (UNDIFFERENTIATED) - SAND, SILT AND CLAY
- STORM BEACH DEPOSITS - GRAVEL



Bedrock geology

- LONDON CLAY FORMATION - CLAY, SILT AND SAND
- WITTERING FORMATION - SAND, SILT AND CLAY
- BOGNOR SAND MEMBER - SAND
- EARNLEY SAND FORMATION AND MARSH FARM FORMATION (UNDIFFERENTIATED) - SAND, SILT AND CLAY
- LAMBETH GROUP - CLAY, SILT AND SAND
- PORTSMOUTH SAND MEMBER AND WHITECLIFF SAND MEMBER (UNDIFFERENTIATED) - SAND

Extract of British Geological Survey

Appendix I

Climate Change Tidal Flood Level Calculation

Sea level allowances

Source of data:
https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

Table 2: sea level allowances by river basin district for each epoch in mm for each year (based on a 1981 to 2000 baseline) – the total sea level rise for each epoch is in brackets

Area of England (Use River Basin)	2000- 2035 (mm)	2036 - 2065 (mm	2066-2095 (mm	2096-2125 (mm)
South East	5.7	8.7	11.6	13.1

Higher Central

Base Year 2018-2035 @ 5.7mm/year (18 years x5.7mm) = 102.6mm

2036-2065 @ 8.7mm/year (30 years x 8.7mm) = 261mm

2066-2095 @11.6mm/year (30 years x11.6mm) = 348mm

2096-2122 @13.1mm/year (27 years x 13.1mm) =353.7mm

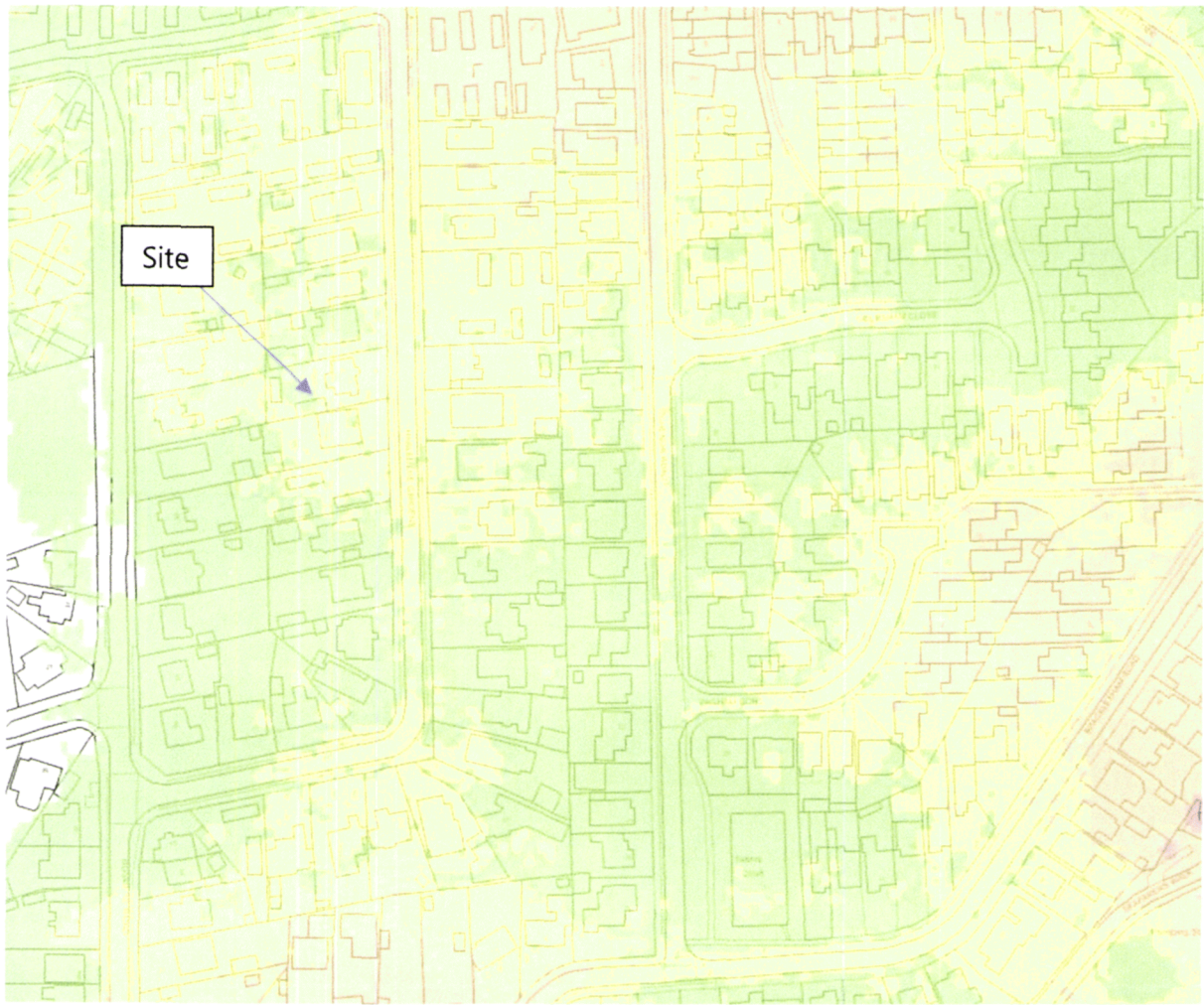
Overall total = 1065.3mm/1.065m rise

Baseline flood level (max flood level in area of proposed dwelling) present day at F0.5% (1 in 200) = 3.37m AOD and for year 2122 = 4.44m AOD

Appendix J
SFRA Extracts

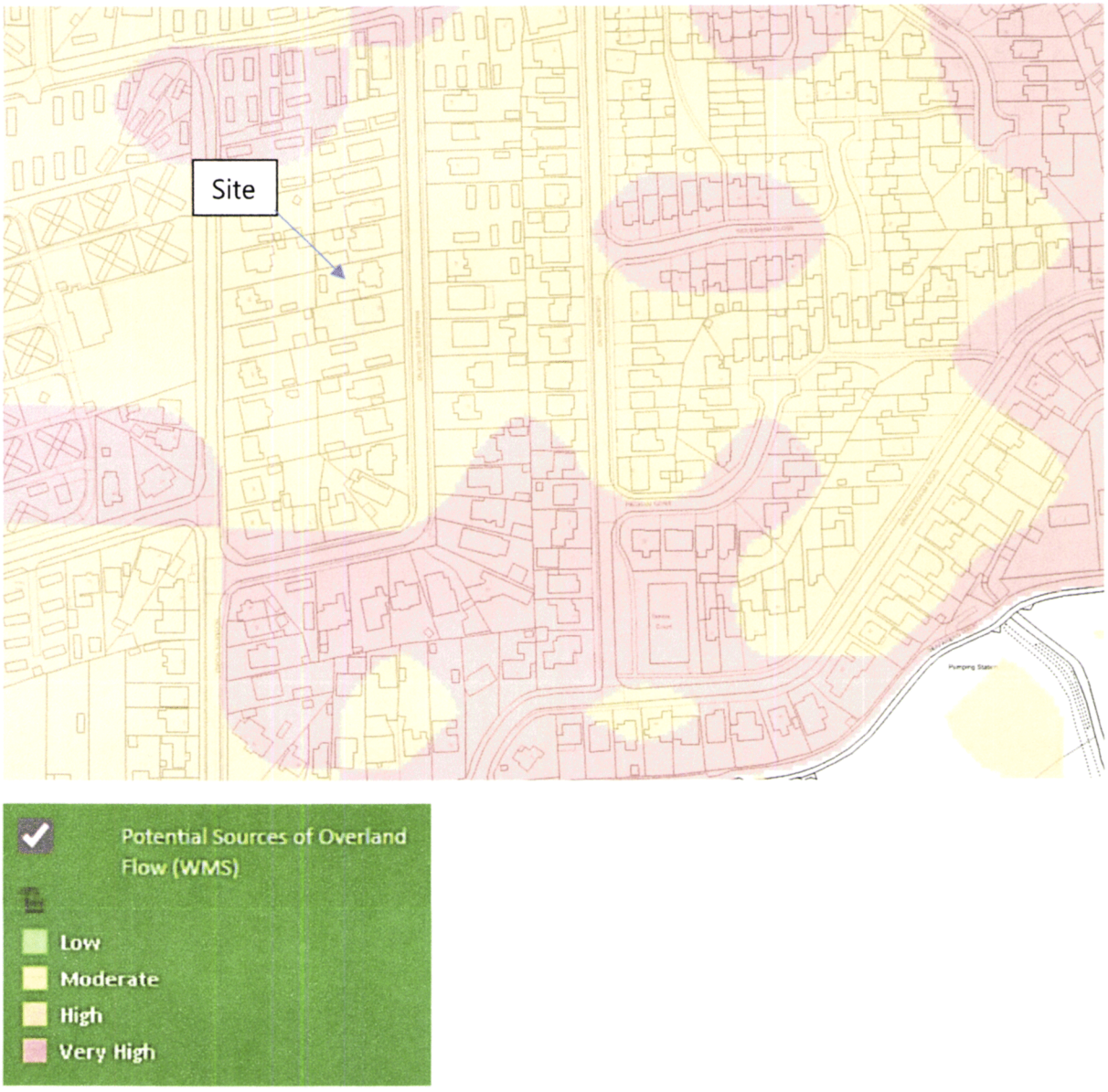
Partnership for Urban South Hampshire(PUSH) Strategic Flood Risk Assessment Map Extracts

Undefended Flood Hazard Map (1% annual probability flood event)





Surface Water Flood Map



Southern Water Recorded Flood Incidents



Source of extracts: https://pcc.dynamicmaps.co.uk/MapThatPublic/Default.aspx#

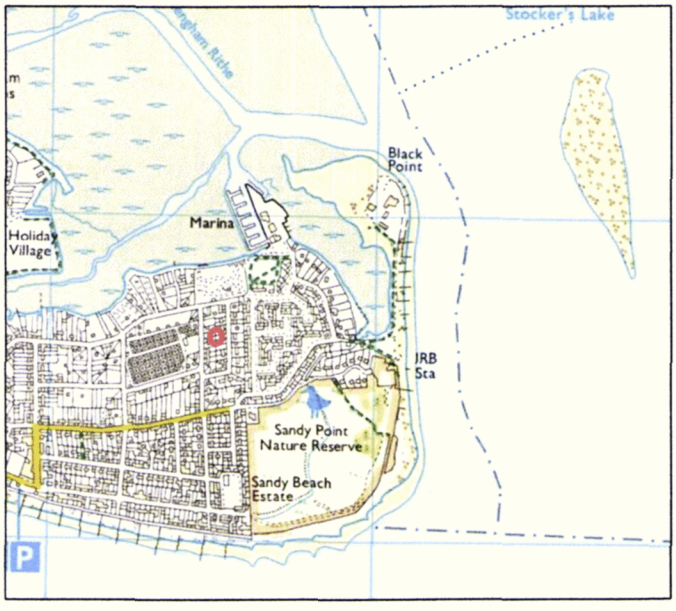
Appendix K

Flood Warning and Evacuation Plan

Flood Emergency Plan

17 Haslemere Gardens, Hayling Island

PO11 9SD



Prepared by .....

Michael Hartley

Review by .....

Tim Killingback

MH/TK/303499

February 2022

Table of Contents

1.0 Introduction 3

2.0 Summary of flood risk 3

3.0 Flood Warnings 5

4.0 Safe refuge and evacuation 7

5.0 Role of the emergency services, local authority, Environment Agency and utility companies 9

6.0 Useful contacts 12

7.0 Monitoring and review of the Plan 13

8.0 Useful information 14

1.0 Introduction

1.1 Scott White and Hookins have been commissioned by Mr Geoff Tournoff to undertake a base template for a Flood Emergency Plan for the proposed residential development at land to the rear of 17 Haslemere Gardens, Hayling Island, PO11 9SD.

1.2 This Flood Emergency Plan provides a template to be completed and implemented by the owner or landlord responsible for the proposed dwelling.

1.3 This Flood Emergency Plan should be read in conjunction with the site Flood Risk Assessment undertaken by Scott White and Hookins.

1.4 The Flood Risk Assessment identified the site is located in Flood Zone 3 as it is at high risk of tidal flooding from the sea.

1.5 A Flood Emergency Plan is a written document that gives guidance on how to respond to a flood. This template lists the steps to be taken in case of a flood and checklists of procedures that can be quickly accessed by residents during a flood. Once the plan is completed, it should be updated regularly.

1.6 The proposed development comprises the removal of an existing static mobile home and demolition of outbuildings and erection of single storey dwelling with amenity area and parking at land to rear of 17 Haslemerre Gardens. See site plan appended to this report.

2.0 Summary of flood risk

2.1 Based on the Environment Agency flood map and the available SFRA, the whole site is located within Flood Zone 3a. Flood Zone 3a indicates this area is at risk from tidal flooding with an annual exceedance probability (AEP) of 0.5% (1 in 200 years).

2.2 Other sources of flooding have also been considered, including overland flow of surface water and groundwater. The proposed development will incorporate a new drainage system which will be designed in accordance with current design guidelines and thus mitigates the risk of surface water flooding on the site. The risk of groundwater flooding is considered to be low.

2.3 The primary risk of flooding is due to tidal flooding due to the site's proximity to The Solent. The primary factors leading to tidal flooding are the long term impact of climate change, and storm surge due to extreme weather and heavy rainfall.

2.4 Due to the nature of tidal flooding, the difference between high tide and low tide is approximately 6-7 hours, however the period over which the extreme high tide is likely to occur will only be a few hours.

2.5 With reference to the site plan, the finished floor levels of the new dwelling is to be set at 3.84m AOD which is above the current 0.1% annual probability modelled flood level. In order for the dwelling to be safe over its design lifetime (up to 2122), flood resistant/resilient measures are proposed above 3.84m AOD. The existing driveway to the side of the existing property and leading to the new dwelling will be raised to the current 0.1% annual probability modelled flood level, however safe access and egress will not be available for the anticipated lifetime of the development due to the impact of climate change on sea levels.

3.0 Flood Warnings

3.1 The site is eligible to sign up to the Environment Agency 24 hour service Floodline Warnings Direct. This is a free 24 hour service that sends automated flood warnings by telephone, SMS text, email, fax or pager. The residents should contact Floodline on 0345 988 1188 to register to receive the automated flood warnings. We would recommend a number of contact details are registered to ensure any flood warnings are received and actioned in a timely manner.

3.2 Further information is available from https://www.gov.uk/sign-up-for-flood-warnings or https://check-for-flooding.service.gov.uk/ where the current flood warning status is provided in more detail by clicking on the site location within the interactive maps. You can also use a quick-dial code for Floodline (0345 988 1188) at any time to check the current flood warning status.

3.3 The Environment Agency and Floodline will use the following alerts

- Flood alert

  What it means – Flooding is possible. Be prepared

  When it's used – Two hours to two days in advance of flooding

  What to do – Be prepared to act on your flood plan
  Prepare a flood kit of essential items
  Monitor local water levels and the flood forecast on www.environment-agency.gov.uk

- Flood warning

  What it means – Flooding is expected. Immediate action required

  When it's used – Half an hour to one day in advance of flooding

  What to do – Move possessions, valuables and pets to a safe place.
  If flood protection measures are available (air bricks and flood guards to the existing dwelling at the front of the site)
  Turn off gas, electricity and water supplies if safe to do so

Consider moving any vehicles which are parked at low level on site to outside the Flood Zone.

- Severe Flood warning

  What it means – Severe flooding. Danger to life

  When it's used – When flooding poses a significant risk to life

  What to do – Stay in safe place with means of escape

  Be ready should you need to evacuate

  Co-operate with the emergency services

  Call 999 if you are in immediate danger

- Warning no longer in force – This is triggered when a previously issued flood warning is no longer applicable. If evacuation has occurred residents should check with Havant Borough Council emergency authorities that it is safe to return to the building. If flooding has occurred contact your landlord/management company for advice (if applicable), take photos of any damage and contact your insurance company.

4.0 Safe refuge and evacuation

4.1 Safe refuge

- As discussed above, for the residents of the new dwelling, the ground floor level of the building is located at or above the current flood level but below the predicted long term flood level. The dwelling is considered to be safe up to 2075, and this can be extended with the incorporation of flood resistance measures such as flood guards. Therefore, given the expected duration of an extreme flood event, it is recommended residents stay within your property but this should be reviewed in the future.
- It is recommended that a flood kit or 'grab bag' of essential items is kept onsite to support a short-term refuge and/or evacuation.

4.2 Evacuation procedure

- Whilst the proposed dwelling is considered an area of safe refuge, if you need to evacuate the building, you should follow the route indicated in Figure 1 bellow, following the arrows to the non-blue shaded area which is anticipated will be above the flood level and therefore visible. The designated route will lead to Haven Road west of the site and into an area outside the Flood Zone (see Figure 1 below).

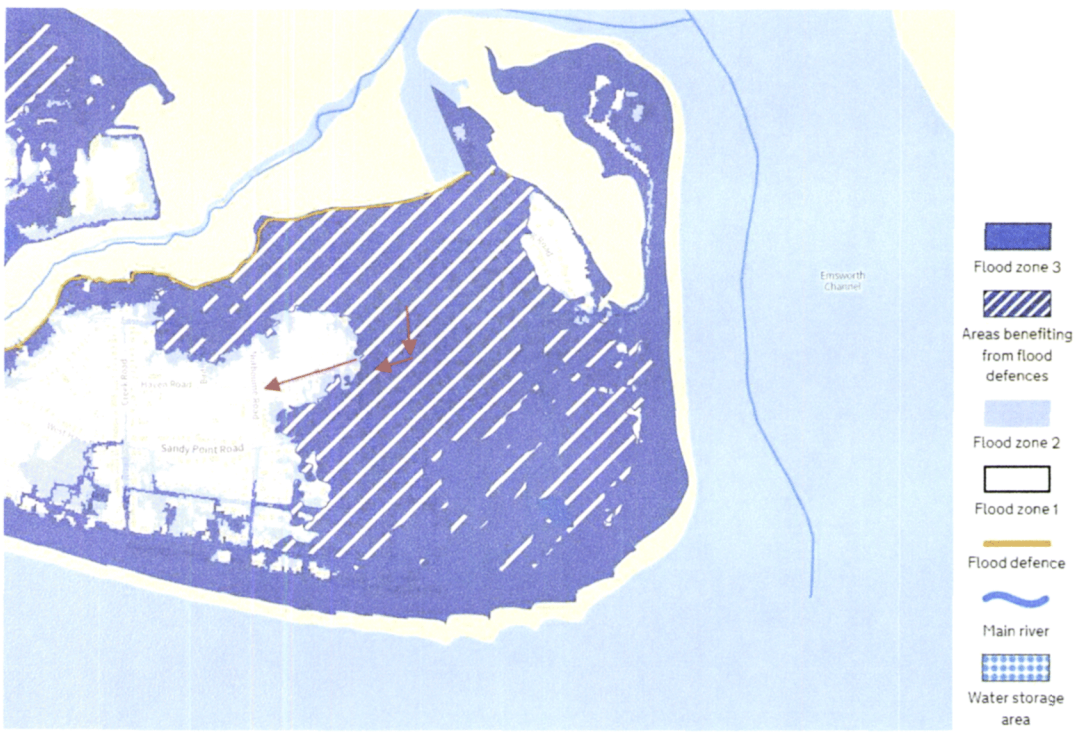


Figure 1: Proposed Flood Evacuation Route

4.3 Responding to flood warnings

- Resident should adhere to this Site Flood Plan however any guidance should be overridden by any advice given by competent authorised staff including the Emergency Services or Local Authority responders on the ground in the event of a serious flood event.

- The following table gives guidance on the location and procedure for cutting off existing services. Any additional services should be added to the list.

Service cut-off	**Location and procedure**
Electricity	
Gas	
Water	

5.0 Role of the emergency services, local authority, Environment Agency and utility companies

5.1 The response to a major flood event will involve a number of organisations working together at a local level to ensure people are kept safe, including the emergency services, local authority, the Environment Agency and utility companies. The Hampshire and Isle of Wight Local Resilience Forum (HIOW LRF) Multi Agency Flood Plan has been produced to provide relevant information and outline the response arrangements in place for a coordinated multi agency response.

5.2 The general roles of the main bodies in relation to a major flood event in Hayling Island are summarised below. It should be noted that this is a general list, and specific duties may vary between different bodies.

5.3 Hampshire Constabulary (Police):

- Overall coordination of the multi-agency response at a major flood event
- Coordinate any multi agency decision to evacuate in consultation with key partner agencies.
- Save life in cooperation with the other emergency services.

5.4 Hampshire Fire and Rescue Service:

- Assist with evacuation and coordinate search and rescue operations.
- Provide and/or obtain specialist advice and assistance where hazardous materials are involved.
- Obtain New Dimensions specialist equipment such as High Volume Pumps.
- Assist other relevant agencies, particularly the local authority, to minimise the effects of major flooding on the community.

5.5 Havant Borough Council as the Local Authority:

- Provide Rest Centre capability for flood risk affected communities and activate support staff and voluntary sector to support this.
- Provide emergency transport for people, equipment and materials, and if necessary evacuation.
- Provide advice and information to the public (websites, customer service centres, and social media) in accordance with the information provided in the HIOW LRF Multi Agency Flood Plan.
- Flood alleviation – for flood prevention, such as the placement of demountable flood barriers, clearing blocked culverts, for dealing with flooded roads and diversions and for other assistance to the public such as drying-out facilities.
- Emergency environmental health advice for action relating to environmental problems caused by flooding.
- Coordination of the voluntary response.

5.6 The Environment Agency:

- Issue flood alerts/ warnings and/or Operational Messages using their Flood Warning services to warn and inform the public and partners.
- Responsibility for maintenance and operation of Environment Agency owned flood defences. Checking defences and undertaking essential repairs and maintenance on Environment Agency owned flood defences and advise other owners on their maintenance responsibilities.
- Monitor water levels and flows, assessing the risk, clearing obstructions from known pinch points and advising the emergency services and the local authority.
- Along with partners, deploy temporary flood defences where impacts can be mitigated.
- Support the police and local authority by providing materials, equipment and manpower as far as resources and other duties permit, once own systems and flood defences are secure.

5.7 Utility Companies:

- Maintain the safety and integrity of the electricity/ gas/ water supply system.
- Liaise with partner agencies and obtain pumps to maintain the supply at key locations.
- Repair services and seek alternative means of supply during any disruption and restore supplies as soon as possible.
- Implement Business Continuity Plans.

6.0 Useful contacts

	Name / Company	Telephone number
Environment Agency Floodline		0345 988 1188
Landlord/management company		
Electricity supplier and meter number		
Gas supplier and meter number		
Water supplier and meter number		
Telephone provider		
Local authority emergency services		
Insurance company 24-hour number and policy number		
Insurance agent		
Non-emergency Police		
Non-emergency Fire Service		

7.0 Monitoring and review of the Plan

7.1 It is important that this Site Flood Plan is kept up-to-date and accurate. It is the responsibility of the Plan owner to maintain and update the Plan at least every three years, when new information becomes available or a change in circumstances that may affect it occurs.

7.2 It is the responsibility of the building owner (private ownership, landlord) to monitor, review and update the plan accordingly.

7.3 It is the responsibility of that person to ensure that all other individuals who use and reside at the dwellings are aware of the contents of the Plan and are made aware of any updates or changes.

7.4 It is the intention that this Plan is used as a basic template which can be amended or added to as necessary.

8.0 Useful information

Find out if your property is at risk of flooding – https://check-for-flooding.service.gov.uk/find-location

Sign up to receive flood warnings - https://www.gov.uk/sign-up-for-flood-warnings

Monitoring flood warnings and river levels - https://www.gov.uk/check-if-youre-at-risk-of-flooding

Make a personal flood plan https://www.gov.uk/prepare-for-a-flood/make-a-flood-plan

Preparing your property for flooding - https://www.gov.uk/government/publications/prepare-yourproperty-for-flooding

What to do before, during and after a flood - https://www.gov.uk/government/publications/floodingwhat-to-do-before-during-and-after-a-flood

Using sandbags to reduce flooding - https://www.gov.uk/government/publications/sandbags-how-touse-them-to-prepare-for-a-flood

Advice on obtaining home insurance - https://www.gov.uk/prepare-for-a-flood/get-insurance

Improving your property's flood protection - https://www.gov.uk/prepare-for-a-flood/improve-yourpropertys-flood-protection

Blue Pages - directory of businesses providing flood resistance and resilience products - http://www.bluepages.org.uk/

Hampshire and Isle of Wight Multi-Agency Flood Response Plan –
https://www.iow.gov.uk/azservices/documents/1439-iwight3-IRF-Flood-Plan-v1.1-March-2011-Plan.pdf

Direct Government Preparing for Emergencies -
https://www.gov.uk/government/policies/reducingthe-threats-of-flooding-and-coastal-change/supporting-pages/planning-for-and-dealing-with-floodemergencies

UK Resilience - http://www.cabinetoffice.gov.uk/ukresilience.aspx

Appendices

Quick Reference Guide

The following provides a simple quick reference guide which can be printed and retained by all residents.

- Environment Agency 24 hour service Floodline Warnings Direct - contact Floodline on 0345 988 1188 to register to receive the automated flood warnings.

- Quick-dial code for Floodline at any time to check the current flood warning status. Call **0345 988 1188**, **press 1** and when requested enter the code **0122124** for Itchen Estuary area.

Flood warnings

- **Flood alert**

  What it means – Flooding is possible. Be prepared

  When it's used – Two hours to two days in advance of flooding

  What to do – Be prepared to act on your flood plan

  Prepare a flood kit of essential items

  Monitor local water levels and the flood forecast on

  www.environment-agency.gov.uk

- **Flood warning**

  What it means – Flooding is expected. Immediate action required

  When it's used – *Half an hour to one day in advance of flooding*

  What to do – Move possessions, valuables and pets to a safe place.

  If flood protection measures are available (air bricks and flood guards to the existing dwelling at the front of the site)

  Turn off gas, electricity and water supplies if safe to do so

  Consider moving any vehicles which are parked at low level on site to outside the Flood Zone.

- **Severe Flood warning**

  What it means – Severe flooding. Danger to life

When it's used – When flooding poses a significant risk to life

What to do – Stay in safe place with means of escape

Be ready should you need to evacuate

Co-operate with the emergency services

Call 999 if you are in immediate danger

- ***Warning no longer in force*** – This is triggered when a previously issued flood warning is no longer applicable. If evacuation has occurred residents should check with Southampton City Council or emergency authorities that it is safe to return to the building. If flooding has occurred contact your landlord/management company for advice (if applicable), take photos of any damage and contact your insurance company.

Find out if your property is at risk of flooding - http://www.environmentagency.gov.uk/homeandleisure/floods/31650.aspx

Sign up to receive flood warnings - https://www.gov.uk/sign-up-for-flood-warnings

Monitoring flood warnings and river levels - https://www.gov.uk/check-if-youre-at-risk-of-flooding

Make a personal flood plan - https://www.gov.uk/prepare-for-a-flood/make-a-flood-plan

Flood Map for Planning (Rivers and Sea) - Centred on Haslemere Gardens, PO11 9SD - Created 6 December 2021



Environment Agency

1: 10,000

0 Metres 250

N W E S

Flood Map for Planning (Rivers & Sea)

- Defences
- Flood Storage Areas
- Areas benefiting from flood defences
- Flood Zone 3
- Flood Zone 2

Flood Map Areas (assuming no defences)

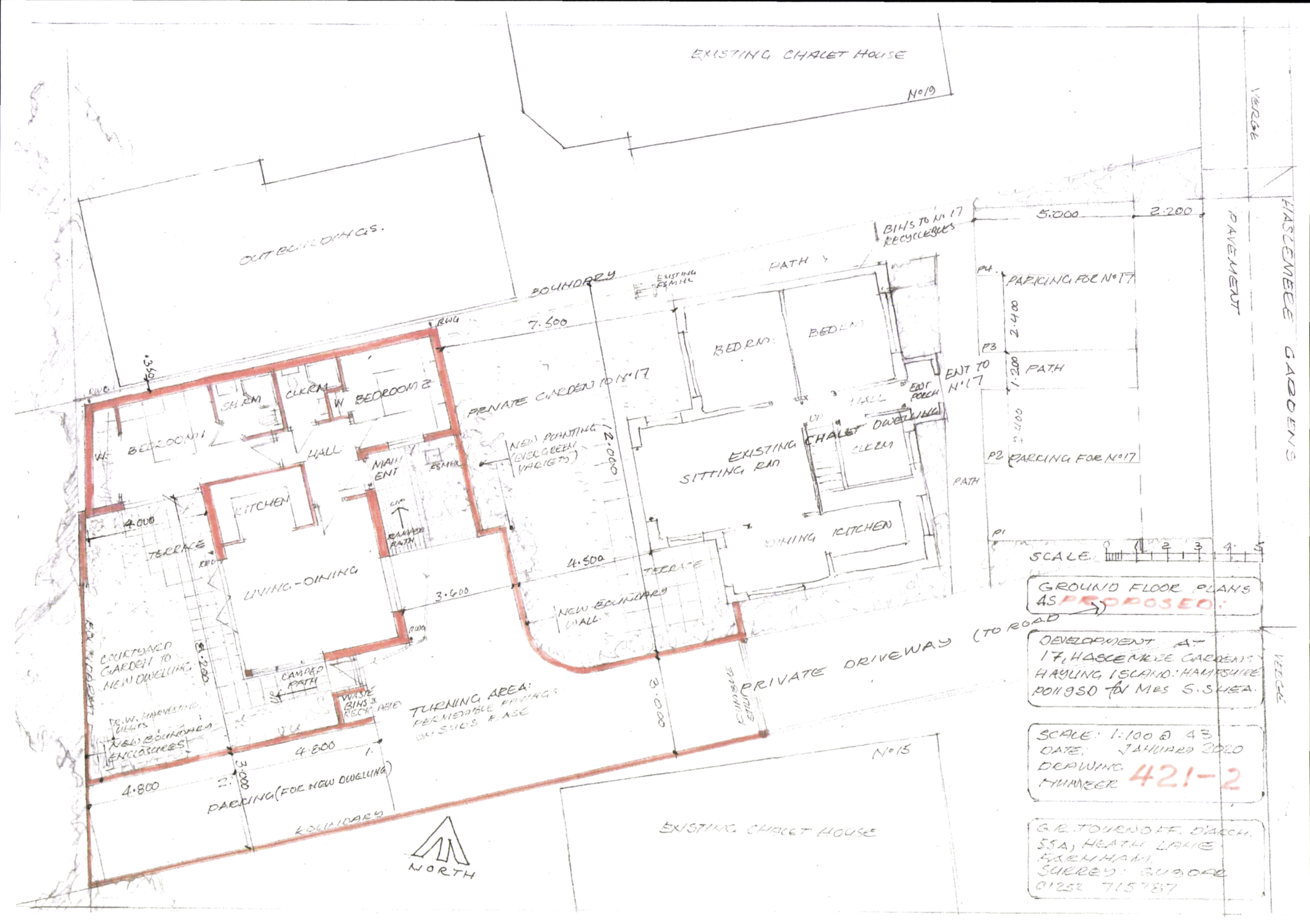
Flood Zone 3 shows the area that could be affected by flooding:

- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

Flood Zone 2 shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occuring each year.

© Crown Copyright and database rights 2021 . Ordnance Survey 100024198

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk


EXISTING CHALET HOUSE
No 19
OUTBUILDINGS.
BOUNDARY
RWG
7.500
BINS TO No 17 RECYCLABLES
PATH
EXISTING FENCE
5.000
2.200
VERGE
PAVEMENT
HASCOMBE GARDENS
PARKING FOR No 17
2.400
P3
1.200
PATH
ENT TO No 17
P2
PARKING FOR No 17
P1
SCALE
BEDRM 1
SH.RM
CLK.RM
W BEDROOM 2
HALL
MAIN ENT
ESMER
PRIVATE GARDEN TO No 17
NEW PLANTING (EVERGREEN VARIETY)
12.000
BEDRM
BEDRM
EXISTING SITTING RM
CHALET DWELLING
UP
CLK.RM
HALL
ENT PORCH
PATH
KITCHEN
DINING
KITCHEN
4.000
TERRACE
LIVING - DINING
RAMPED PATH
4.500
TERRACE
3.600
NEW BOUNDARY WALL
COURTYARD GARDEN TO NEW DWELLING
RWG
CAMBER PATH
WASTE BINS & RECYCLABLE
TURNING AREA: PERMEABLE PAVING ON SUDS BASE
PRIVATE DRIVEWAY (TO ROAD)
CHANNEL STRIP
VERGE
D.W. HARVESTING TANKS
NEW BOUNDARY EXCAVATIONS
4.800
3.000
4.800
2.
PARKING (FOR NEW DWELLING)
BOUNDARY
NORTH
No 15
EXISTING CHALET HOUSE
GROUND FLOOR PLANS AS PROPOSED:
DEVELOPMENT AT 17, HASCOMBE GARDENS HAYLING ISLAND HAMPSHIRE PO11 9SD for Mrs S. SHEA.
SCALE: 1:100 @ A3
DATE: JANUARY 2020
DRAWING NUMBER 421-2
G.R. TOURNOFF DIARCH. 55A, HEATH LANE FARNHAM SURREY GU9 0AE 01252 715787