

**PROPOSED DEVELOPMENT AT
27 NUTBOURNE ROAD
HAYLING ISLAND
HAMPSHIRE**

FLOOD RISK ASSESSMENT

On Behalf of: Mr and Mrs Hayward

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EG/362341/EG

28 August 2014

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INTRODUCTION

Instructions were received on 27th July 2014 to carry out a Flood Risk Assessment on the site and proposed development.

A Planning Application is being submitted in connection with the proposed development at this site. A Flood Risk Assessment in accordance with the current recommendations given in the National Planning Policy Framework, which has now superseded PPS25, has been requested in relation to the requirements of the code for sustainable homes.

Following a desk study and various discussions with local authorities and the Environment Agency, this report has been prepared to determine the risk of flooding on the site for the proposed development and to put forward recommendations to protect the development, its users and surrounding properties from any potential flood risk.

THE SITE AS EXISTING AND AS PROPOSED

Appendix A contains a location plan for the site and photographs showing existing site details. The site can be found at grid reference SZ 74222 98449. Currently the site area comprises of mainly grassed lawn areas with a gravel access road serving the 3 static temporary homes.

The proposed development involves removing the 3 static temporary homes and replacing with 2 number three bedroom single storey homes. There will also be a small hardstanding area for car parking but it is proposed to provide this area as a SUDS type of surfacing such as permeable block paving.

Appendix B provides proposed plans for the new development.

The site is to be found at the junction of Nutbourne Road and Haven Road and is generally level with no significant slope.

As we understand it there is no existing formal storm drainage on the site with the temporary static homes draining directly to ground. The foul drainage system has also not been confirmed but we believe that it must discharge into the local sewerage drainage network within Nutbourne Road.

GEOLOGY

A study was made of the local British Geological Survey map and it was found that the site is overlain by River Terrace deposits usually brickearth, sands and gravels overlaying London Clay. The findings of the map will need to be confirmed by a site investigation in due course.

POLICY BACKGROUND

The Government's sustainable development strategy makes it a requirement to assess appropriate forms of developments for areas at risk of flooding. This is to avoid any unnecessary increase in the requirement for flood defences. A requirement of the National Planning Policy Framework is that developers making planning applications on sites that are potentially at risk from flooding should consult with the Environment Agency, and where appropriate produce a flood risk assessment (FRA). The Environment Agencies flood guidance was consulted and showed that a flood risk assessment is appropriate for this site.

FLOOD RISK MAPS AND AVAILABLE INFORMATION

Appendix C contains a copy of the Environment Agency Flood Map for this area as well as the flood map from the PUSH strategic flood risk assessment. Both show that the development is within flood zone 1. Flood zone 1 indicates that this zone comprises land assessed as having a less than 1 in 1000 annual probability of flooding in any year ($<0.1\%$).

EFFECT ON EXISTING DRAINAGE STRATEGY

For developments less than 1 hectare in Flood Zone 1, the main flood risk issue to consider is usually the management of surface water run-off. Drainage from new development must not increase flood risk either on-site or elsewhere. Government policy strongly encourages a sustainable drainage system (SuDS) approach to achieve these objectives.

Currently the development consists of 3 number static temporary homes with a small shed and some small patio areas, these currently discharge their storm water straight to ground. The total area of impermeable surfaces on the site is approximately 290m², this represents the current storm water run-off from the site.

The proposed development consists of 2 No. single storey homes with a total roof area of 310m². There is also a driveway area and some small patios but these should be constructed using a permeable surfacing system such as gravel or permeable block pavements.

Therefore there is a very minor small net increase in impermeable area between the new and existing development consisting of 20m².

It is proposed to use a soakaway system on the site such as precast concrete rings or a storage crate system. Therefore in due course the soakaway system must be designed to store the run-off from the hardstanding areas on the site and ensure that the difference in volume between the existing and proposed storm water runoff can be temporarily stored to ensure that the overall discharge/run off from the site is maintained at its current level. In due course a soil infiltration test will need to be carried out on the site to enable final soakaway design, this will also need to find existing ground water levels

on the site which the soakaway design will need to consider to ensure that adequate storage volume is provided.

Any flooding near the site, as there are areas within approximately 25m of the site within flood zone 2, will be caused by the sea inundating the region of Hayling Island, therefore the effect of storm water discharge from the site is not significant to the cause of flooding. However it is proposed to limit the run-off from the site to that of the existing development as noted above.

It is believed that the existing foul water from the site discharges into the existing foul sewers within Nutbourne Road (this will need to be confirmed during the building regulation stage of the project). The existing foul water discharge from the three static homes will not significantly differ from the discharge of the proposed two number permanent homes proposed for the new development. Therefore foul water discharge will not significantly affect flooding issues of the site or nearby areas.

SEQUENTIAL TEST

The total area of the proposed development site is approximately 0.1 hectare. The EA flood risk advice was consulted for less than 1 hectare operational development in flood zone 1 with 'more vulnerability'. The following standing advice is appropriate for the development. The sequential test should be applied by the local planning authority and a flood risk assessment is required.

The sequential test for the development should be undertaken by the local planning authorities using the guidance given by the EA in their flood risk guidance document. The aim of the sequential test is to steer development towards flood zone 1. In the case of our proposed development it is already within flood zone 1 so the sequential test is passed, therefore the exception test is not necessary.

RISK ASSESSMENT

The advice from the Environment Agency was that the development lies within flood zone 1. Flood zone 1 indicates that this zone comprises land assessed as having a less than 1 in 1000 annual probability of flooding in any year (<0.1%).

The Environment Agency Flood Risk Assessment Guidance Note 1 gives guidance for developments within flood zone 1. It states that for sites of less than 1 hectare, as our site, a formal FRA will not usually be required. However in this specific case it is understood that a FRA has been requested. The guidance note goes on to say that if an FRA is requested then this is usually in relation to the management of surface water run-off.

The site is not directly at risk from fluvial or tidal flooding, as shown by the site being situated within flood zone 1 on the Environment Agency flood mapping.

Even though the site itself is within flood zone 1 so not at direct risk of flooding, access to and from the site during the predicted flood events would be to the West along Haven Road or South West along West Haye Road, this would lead any people safely away from potential flood zone 2 and 3 areas during flood events.

As noted earlier the proposed development will not present a significant effect on the storm or foul water discharge from the site so does not significantly affect the risk of flooding to the site or areas near the site.

CONCLUSIONS AND RECOMMENDATIONS

The site is within flood zone 1 so is not directly at risk from fluvial or tidal flooding.

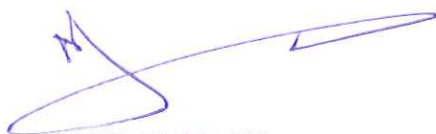
The storm water run-off from the new development will actually be only very slightly more than that of the existing. Therefore in due course the soakaway storage system for the storm water will be designed to temporarily store the runoff, and to maintain the run off to ground at the existing development discharge rate.

The foul water discharge from the site will drain directly into the existing Southern Water sewers within Nutbourne Road. This therefore will remain unaltered for that which currently occurs on the existing site, and foul water discharge levels will not significantly alter from that of the existing site.



ELVIN GOMERY
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For and On Behalf of Cowan Consultancy

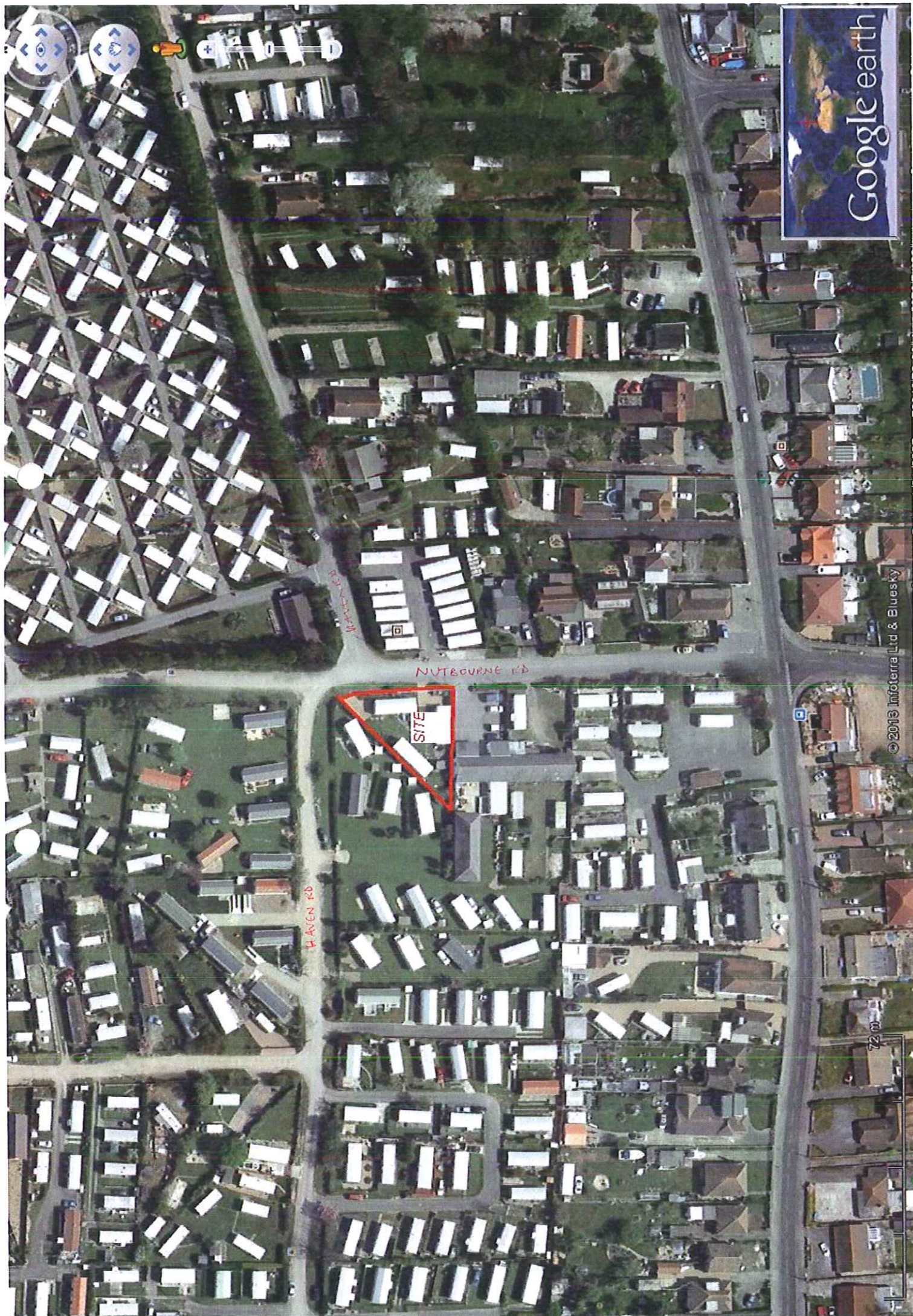


DAVID BUTTON
B.Sc. (Eng), C.Eng., M.I.C.E.

For and On Behalf of Cowan Consultancy

APPENDIX A

**LOCATION PLAN AND EXISTING
SITE DETAILS**



NUTBOURNE RD

HAVEN RD

SITE

72 m







APPENDIX B

PROPOSED DEVELOPMENT DETAILS

HAVEN ROAD

EXISTING CARAVAN

EXISTING CARAVAN

EXISTING CARAVAN

EXISTING CARAVAN

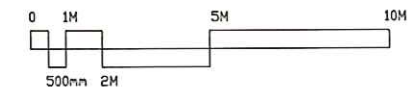
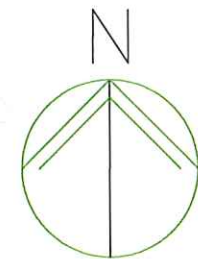
Potential noise from adjacent caravan parking ameliorated by new 1.8m high boundary brick wall and hedgerow planting

Garden

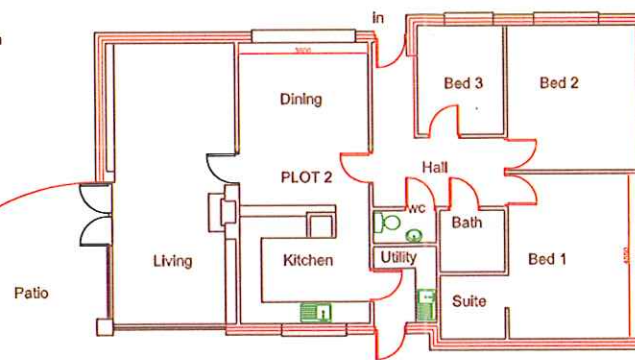
NUTBOURNE ROAD

EXISTING BUILDING

OPEN YARD



Garden



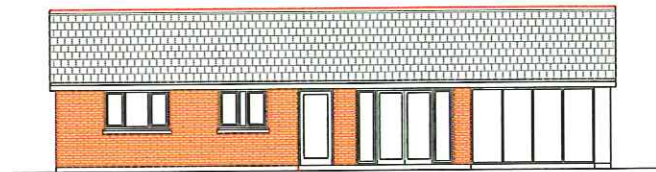
existing building (single storey)

Existing parking area

SCALE	1/100	TITLE	Proposed Dwellings	PETER GALLOWAY PARTNERSHIP
DATE	Nov... '13		27, Nutbourne Road Hayling Island	
PG	13/64/P01	DRAWING No	13/64/P01	
AUTHOR		DETAIL		
PG		Proposed Site Layout		
		TDL 08392 483153		
		E-MAIL: peter@gparchitects.co.uk		



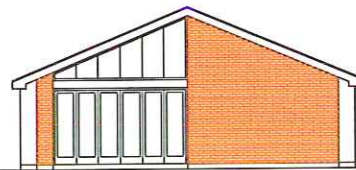
Side Elevation 1 - NORTH WEST



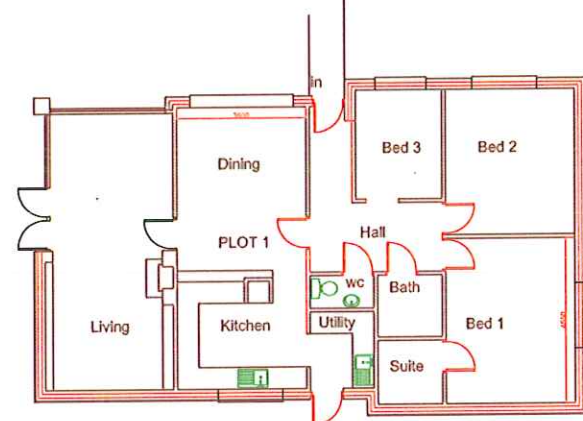
Side Elevation 2 - SOUTH EAST



End Elevation 1 - SOUTH WEST



End Elevation 1 - NORTH EAST

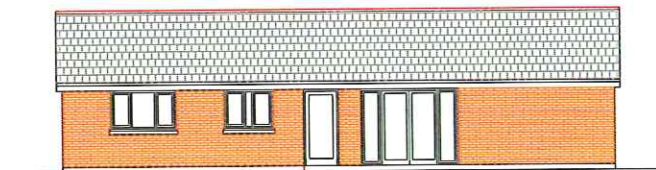


14

PLOT 1



Side Elevation 1 - SOUTH



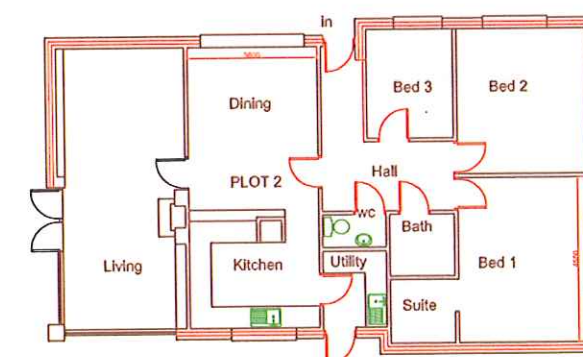
Side Elevation 2 - NORTH



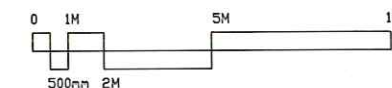
End Elevation 1 - EAST



End Elevation 1 - WEST



PLOT 2



SCALE
1/100
DATE
Nov. '13
AUTHOR
PG
TITLE
Proposed Dwellings
27, Nutbourne Road
Hayling Island
DETAIL
General Arrangement
DRAWING No
13/64/P02

PETER GALLOWAY PARTNERSHIP
HAYLING
ARCHITECTS
TEL: 02392 492152
MOB: 07809 493362
E-MAIL: peter@gallowayarchitects.co.uk



APPENDIX C

ENVIRONMENT AGENCY
FLOOD MAPS



Enter a postcode or place name:

Other topics for this area...

Other maps

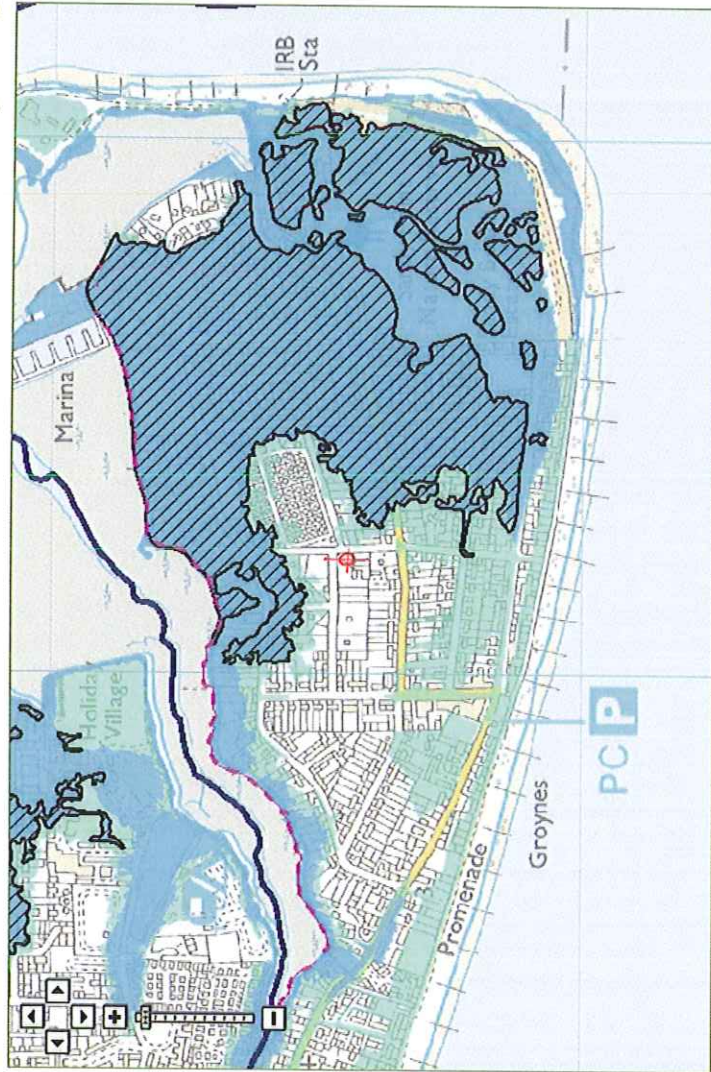
PO11 9RU at scale 1:10,000

Map legend

Click on the map to see what Flood Zone (National Planning Policy Guidance definitions) the proposed development is in.

☒ Flood Map for Planning (Rivers and Sea)

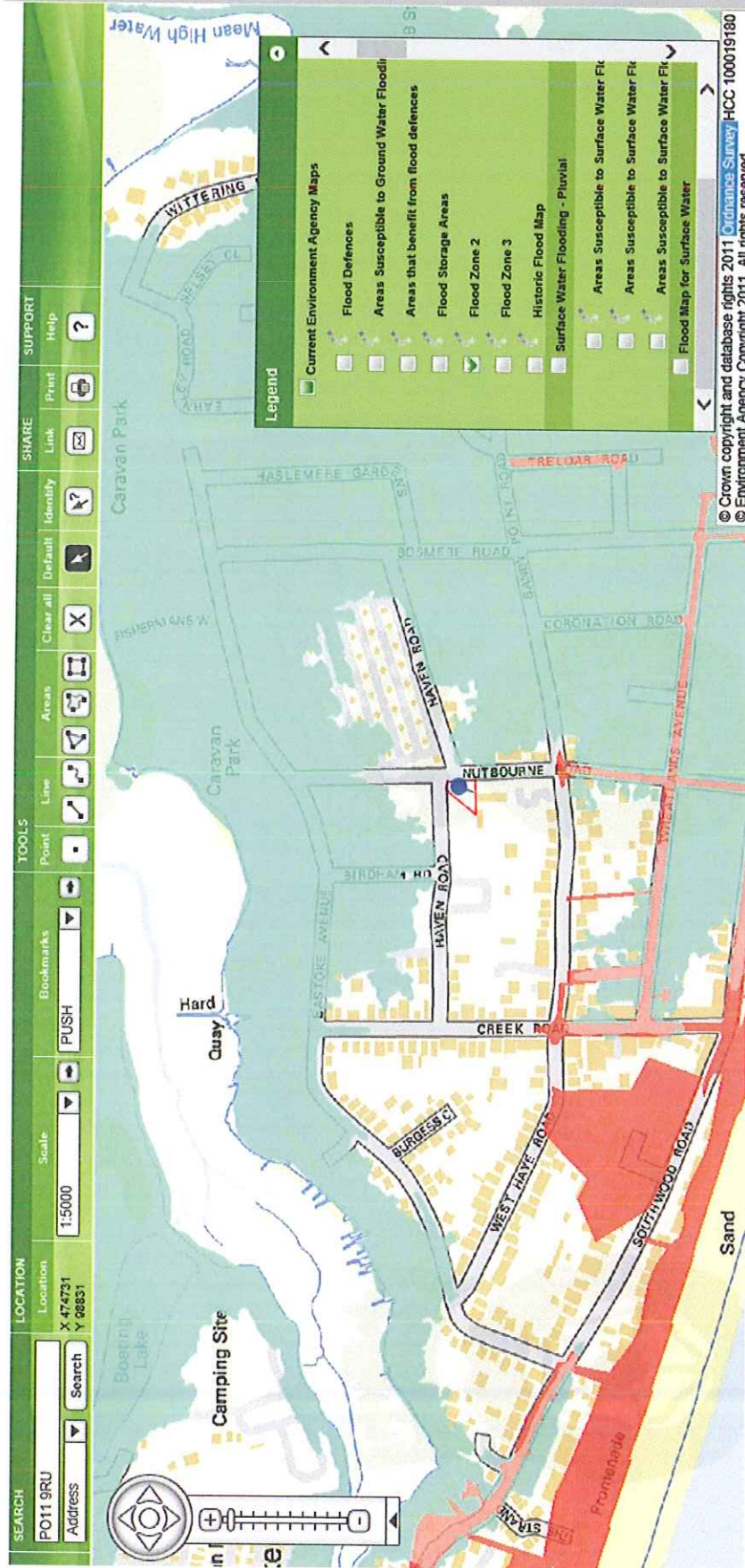
- Flood Zone 3
- Flood Zone 2
- Flood defences (Not all may be shown*)
- Areas benefiting from flood defences (Not all may be shown*)
- Main rivers



Customers in Wales - From 1 April 2013 Natural Resources Wales (NRW) has taken over the responsibilities of the Environment Agency in Wales.
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 Contains Royal Mail data © Royal Mail copyright and database right 2014.
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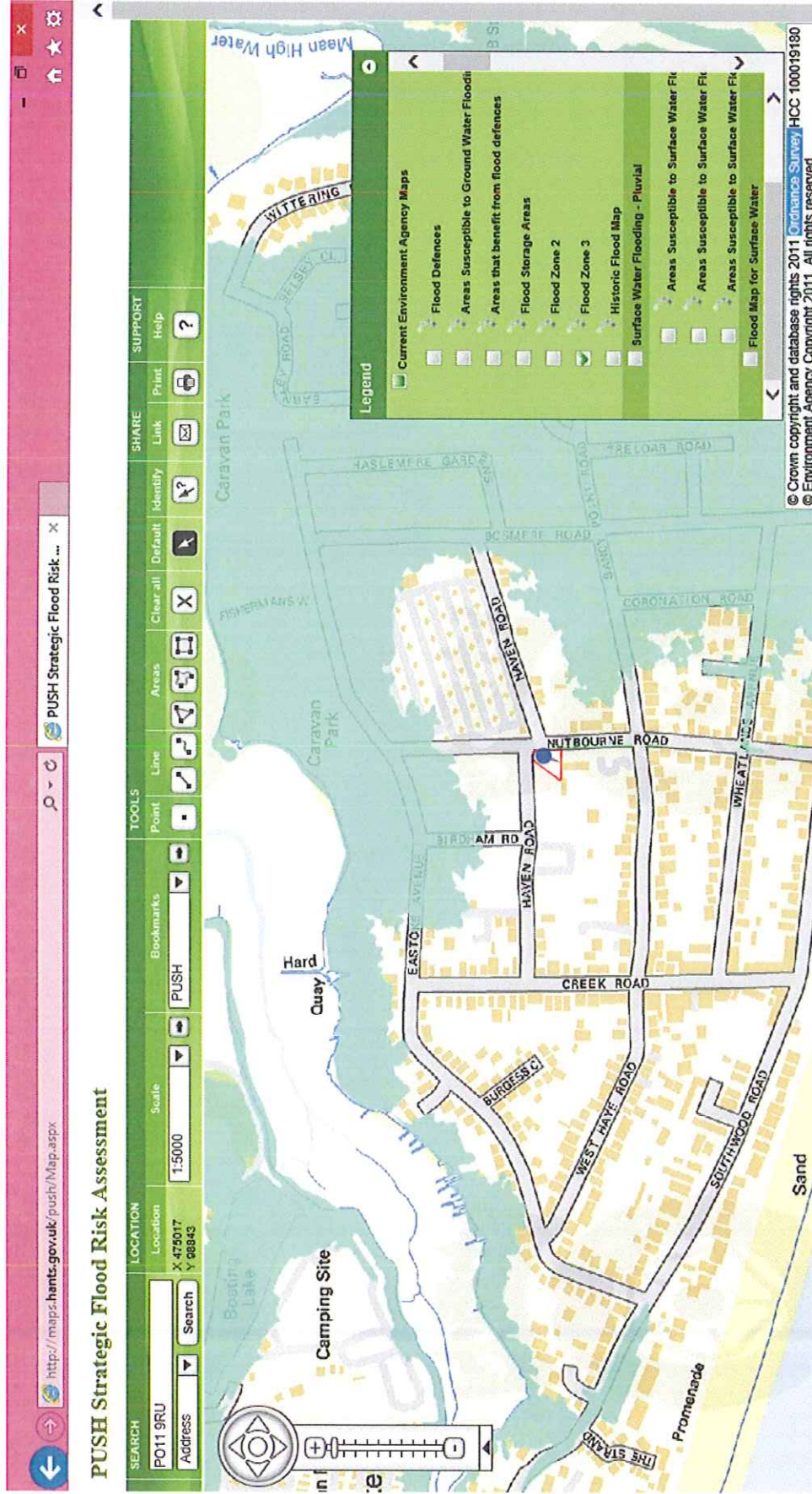
More about flooding:

PUSH Strategic Flood Risk Assessment



The reports below are all in PDF format. If you are having trouble accessing the information in these PDFs, please contact hantsweb@hants.gov.uk for assistance.

- [Final SFRA Report](#)
- [Executive Summary and Appendices](#)
 - [Executive Summary](#)
 - [Appendix A](#)
 - [Appendix B](#)
 - [Appendix C](#)
 - [Guidance Documents](#)
 - [East Hampshire Guidance](#)
 - [Eastleigh Guidance](#)
 - [Fareham Guidance](#)
- [Map Set 1A – Flood Zones](#)
- [4.2.1.2 Map Set 1B – Undefended Flood Hazard](#)
- [4.2.1.3 Map Set 1C – Indicative Areas Benefiting from Defences](#)
- [4.2.1.4 Map Set 1D – Danger to People from Breaching](#)
- [4.2.1.5 Map 1E – Climate Change Flood Outlines](#)
- [4.2.1.6 Map Set 1F – Other Sources of](#)
- [4.2.3.1 Map Set 3A – Present Day Indicative Defence Crest Levels](#)
- [4.2.3.2 Map Set 3B – Indicative Investment Indices \(Present day\)](#)
- [4.2.3.3 Map Set 3C – 2115 Indicative Defence Crest Levels](#)
- [4.2.3.4 Map Set 3D – Indicative Investment Indices \(2115\)](#)



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 - [East Hampshire Guidance](#)
 - [Eastleigh Guidance](#)
 - [Fareham Guidance](#)
- [Map Set 1A – Flood Zones](#)
- [4.2.1.2 Map Set 1B – Undefined Flood Hazard](#)
- [4.2.1.3 Map Set 1C – Indicative Areas Benefiting from Defences](#)
- [4.2.1.4 Map Set 1D – Danger to People from Breaching](#)
- [4.2.1.5 Map 1E – Climate Change Flood Outlines](#)
- [4.2.1.6 Map Set 1F – Other Sources of Flood Risk](#)
- [4.2.3.1 Map Set 3A – Present Day Indicative Defence Crest Levels](#)
- [4.2.3.2 Map Set 3B – Indicative Investment Indices \(Present day\)](#)
- [4.2.3.3 Map Set 3C – 2115 Indicative Defence Crest Levels](#)
- [4.2.3.4 Map Set 3D – Indicative Investment Indices \(2115\)](#)