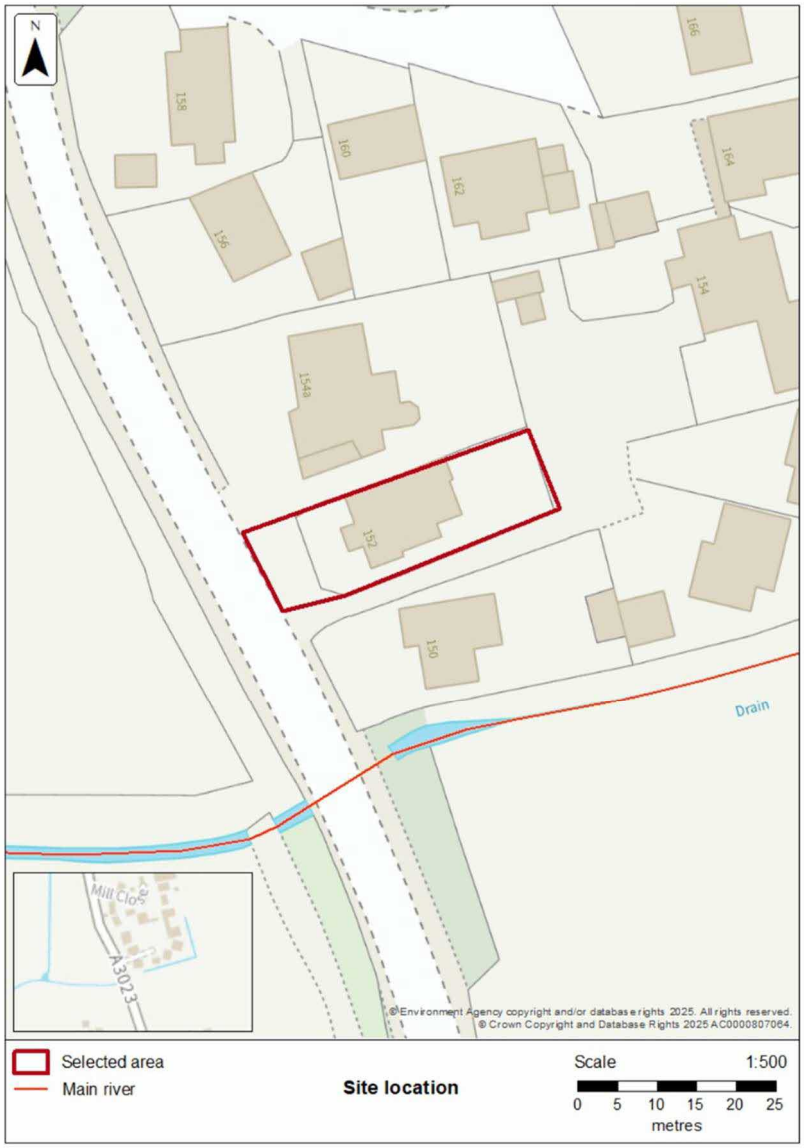
# FRA [Flood risk Assessment] for:
## 152 Havant Road, Hayling Island, PO11 0LJ

## Site details

The proposed development is located at 152 Havant road Hayling island, Hampshire, PO11 0LJ. It is currently being used as a dwelling and its
Grid reference is Eastling (x) 47188, Northling (y) 102749.

**Location of site:** 471881 / 102749 (shown as easting and northing coordinates)
**Document created on:** 6 February 2025
**This information was previously known as a product 4.**
**Customer reference number:** SSD/395700DP

Map showing the location that flood risk assessment data has been requested for.

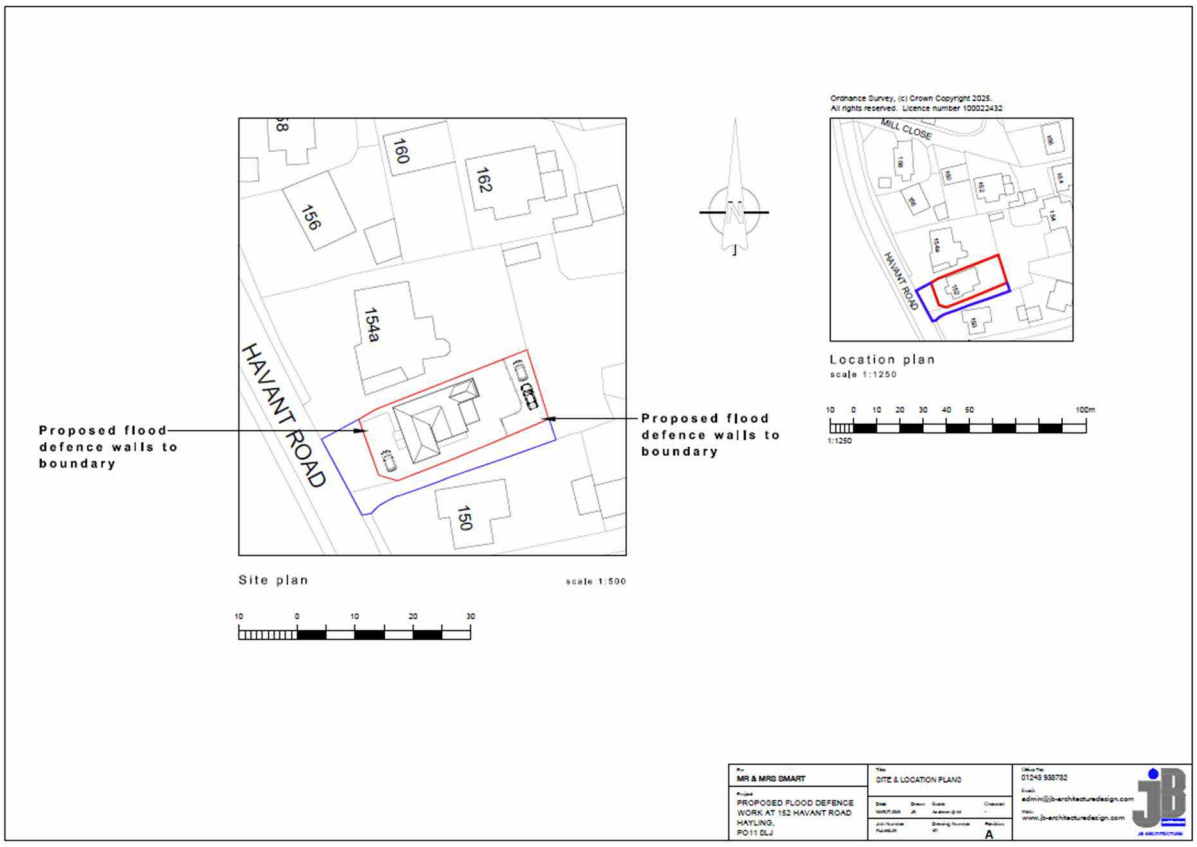


# Proposed development

The lifetime of the proposed development is assumed to be 100 years. As the development lies within flood zone 3 then the development is classified as a highly vulnerable to flood risk, therefore a flood risk assessment is required.

Proposed site plan

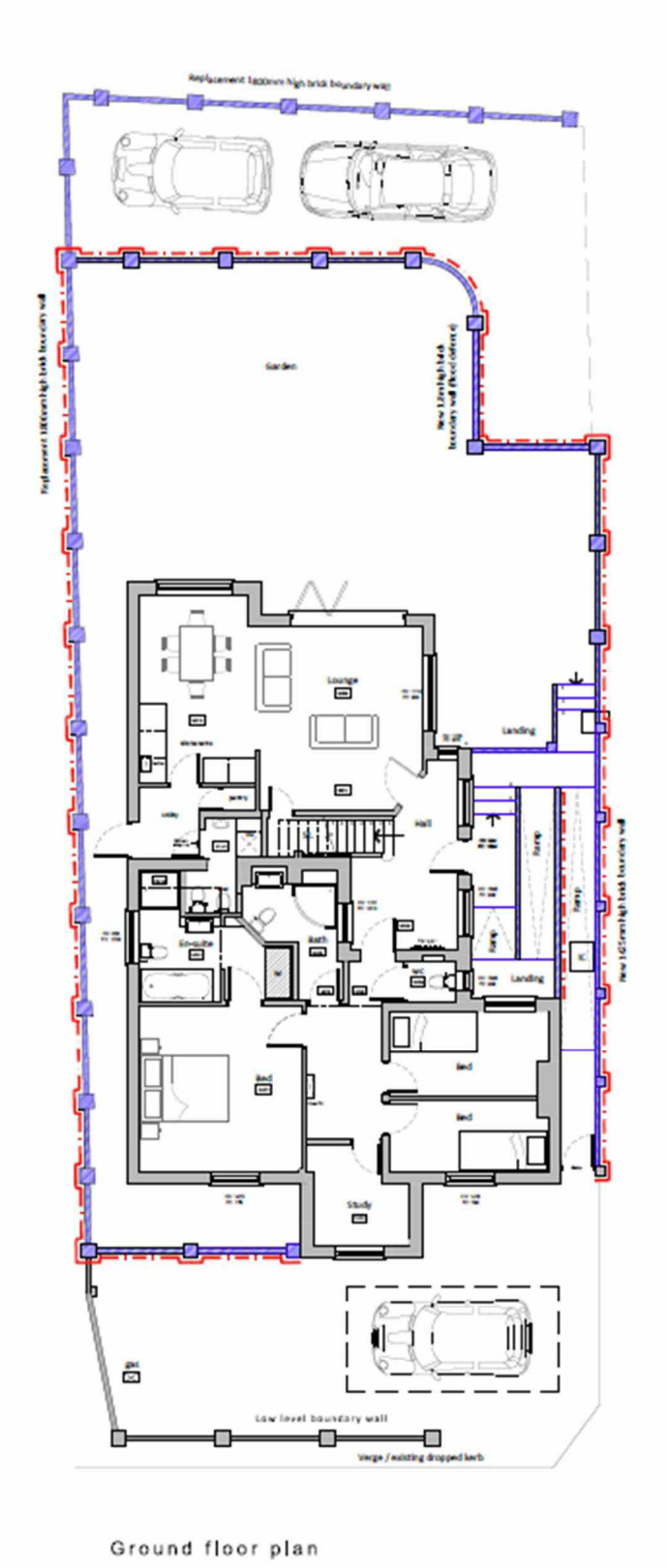
Existing location plan




The development proposal for the above site is;
To construct side and rear dormer elevations to the existing dwelling and to reinstate parking to the front of the property. *(**NB:** Already approved under application no. APP/24/00993 and currently under construction).*

The proposal also includes an improvement to flood defences by changing the parking layout at the back, so that the garden is secure and enclosed. As well as adding a ramp leading up to the front door to prevent water from entering the house in the event of a flood.

See plans below:
The proposed flood defence layout is shown in red.



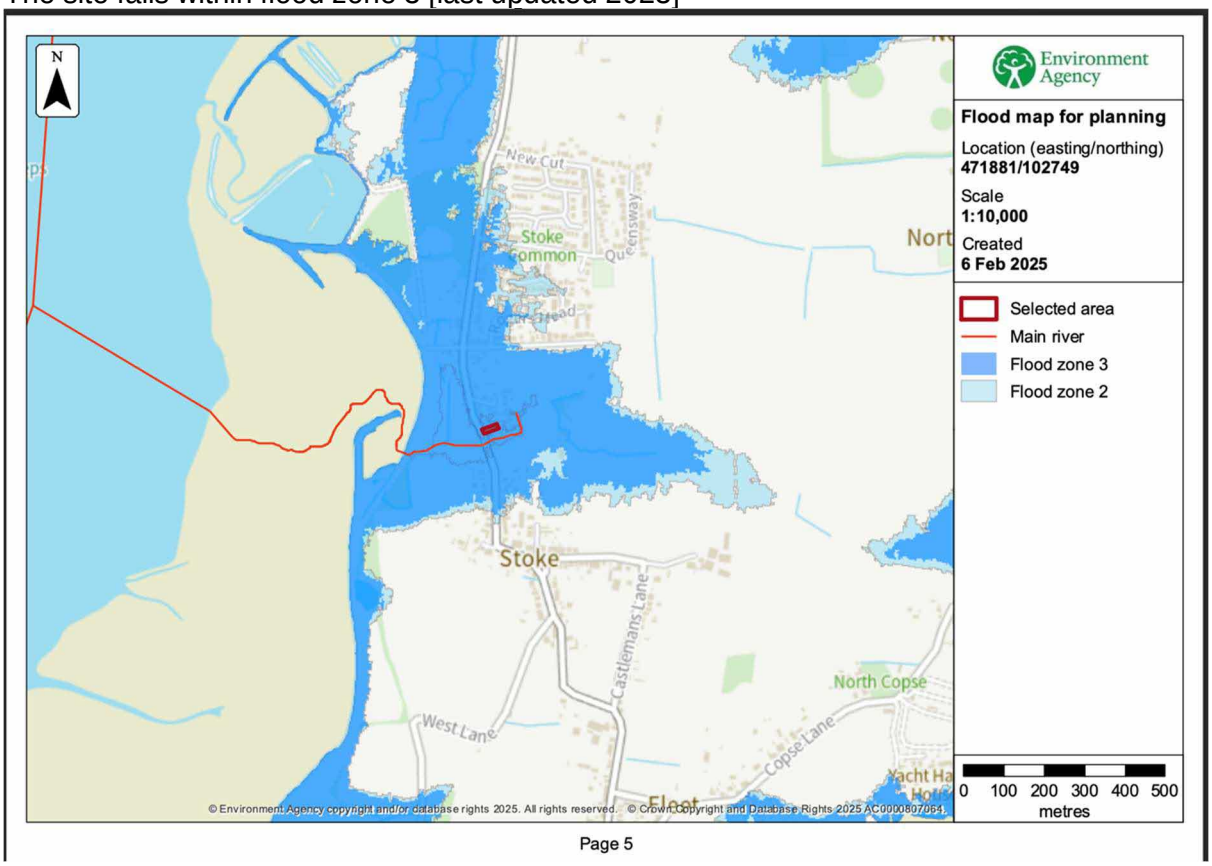

Ground floor plan

## Site specific flood hazards

Considering the specific flood hazards to the property, the mitigation measures proposed allow for the property to be resilient in the event of a 1-200 years tidal flood and a 1-1000 years flueval flood during the lifetime of the development. This also accounts for climate change over the next 100 years

## Flood map for planning.

The site falls within flood zone 3 [last updated 2023]




Page 5

Flood model data for the site suggests that; Over the lifetime of the development the probability of tidal flood occurring is between 0.1% and 1% and for a fluvial flood it is 1% or greater in any one year. This is ignoring the presence of any sea defences or considering the potential impact of climate change.

## Historical flooding

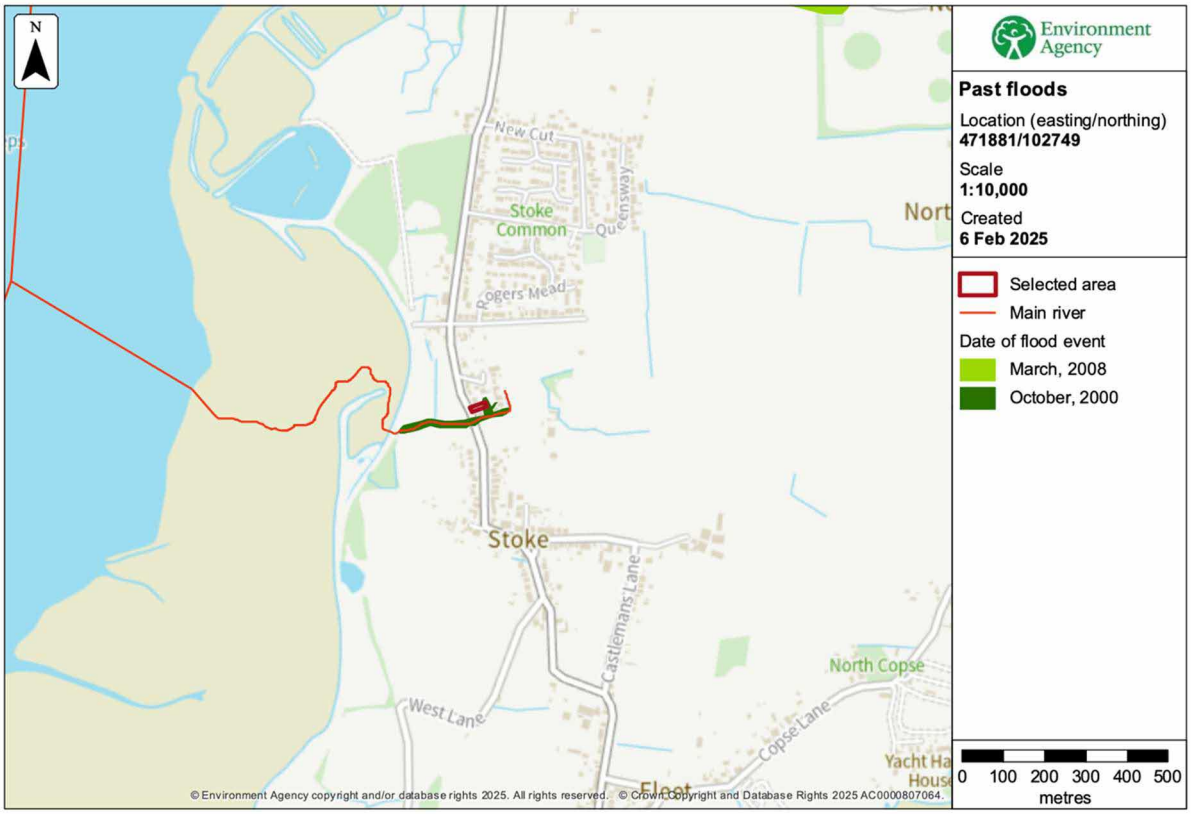
The data shows all potential sources of flooding over the lifetime of the development for 152 Havant road. Two occurrences have been recorded. Although, last year we had a third that has not yet been added to the statistics.

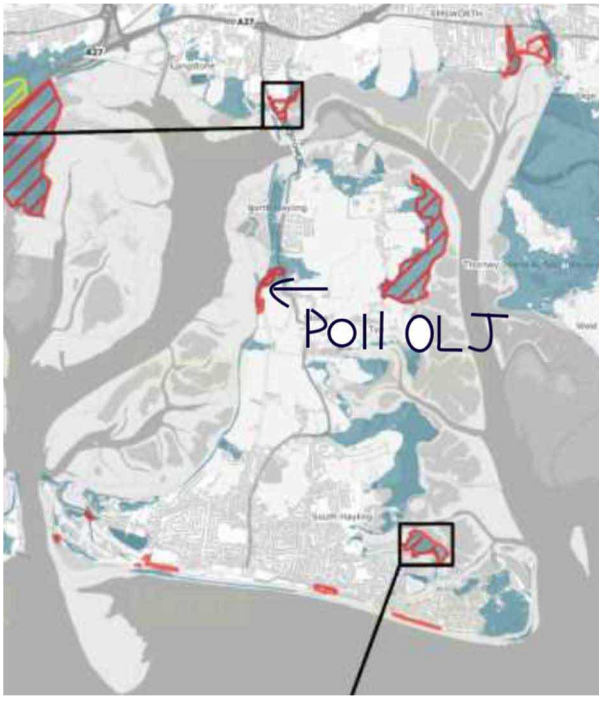
We have been informed that the earlier flooding was due to the collapsing of the drain outlet that goes into the sea. Hence the flood pattern following the line of the stream on the map.

Since the data above was collected we have had another flooding in April 2024. This was due to storm Pierrick colliding with higher than usual spring tides and partially breaking through the flood defence barrier in area 3 [see under current defences].

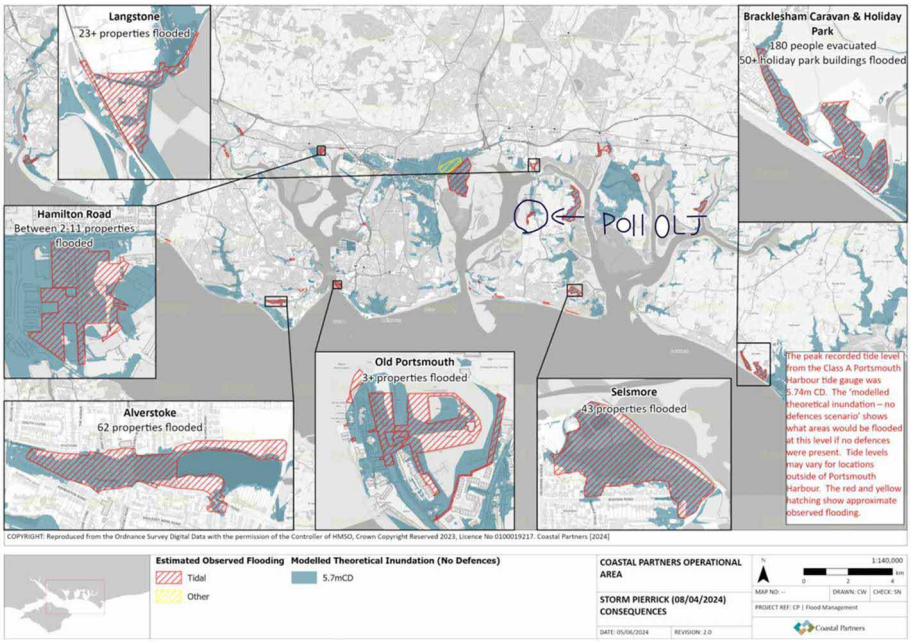
## Data on past flood events

| Start date | End date | Source of flood | Cause of flood | Affects location |
|---|---|---|---|---|
| 10 March 2008 | 10 March 2008 | sea | other | No |
| 30 October 2000 | 30 October 2000 | unknown | unknown | Yes |




Tidal flood - April 9th 2024



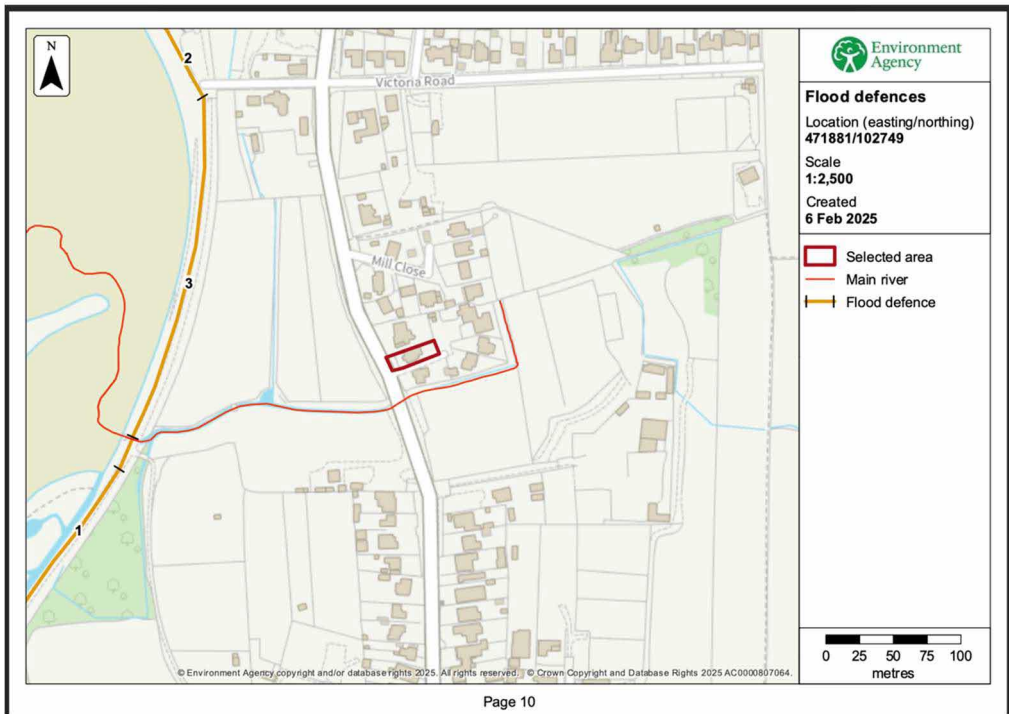

## Current flood defences

Current sea defences opposite the development site are at 3.10 mAOD (meters above ordnance datum) and at 3.2 & 2.75 either side. The highest levels recorded were last year at 3.02.

**Flood defences data**

| Label | Asset ID | Asset Type | Standard of protection (years) | Current condition | Downstream actual crest level (mAOD) | Upstream actual crest level (mAOD) | Effective crest level (mAOD) |
|---|---|---|---|---|---|---|---|
| 1 | 459619 | Embankment | | | | | 2.75 |
| 2 | 459598 | Embankment | | | | | 3.20 |
| 3 | 183342 | Embankment | 50 | | 3.74 | 4.04 | 3.10 |

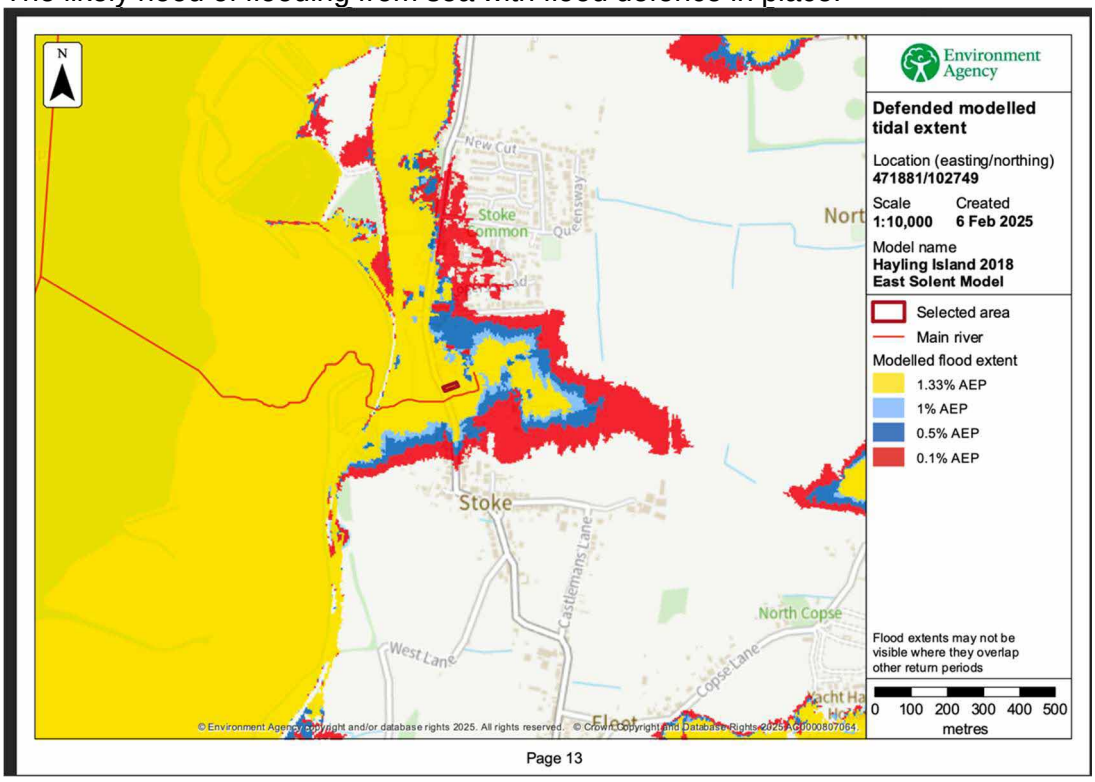
Any blank cells show where a particular value has not been recorded for an asset.



## Tidal & Fluvial flooding

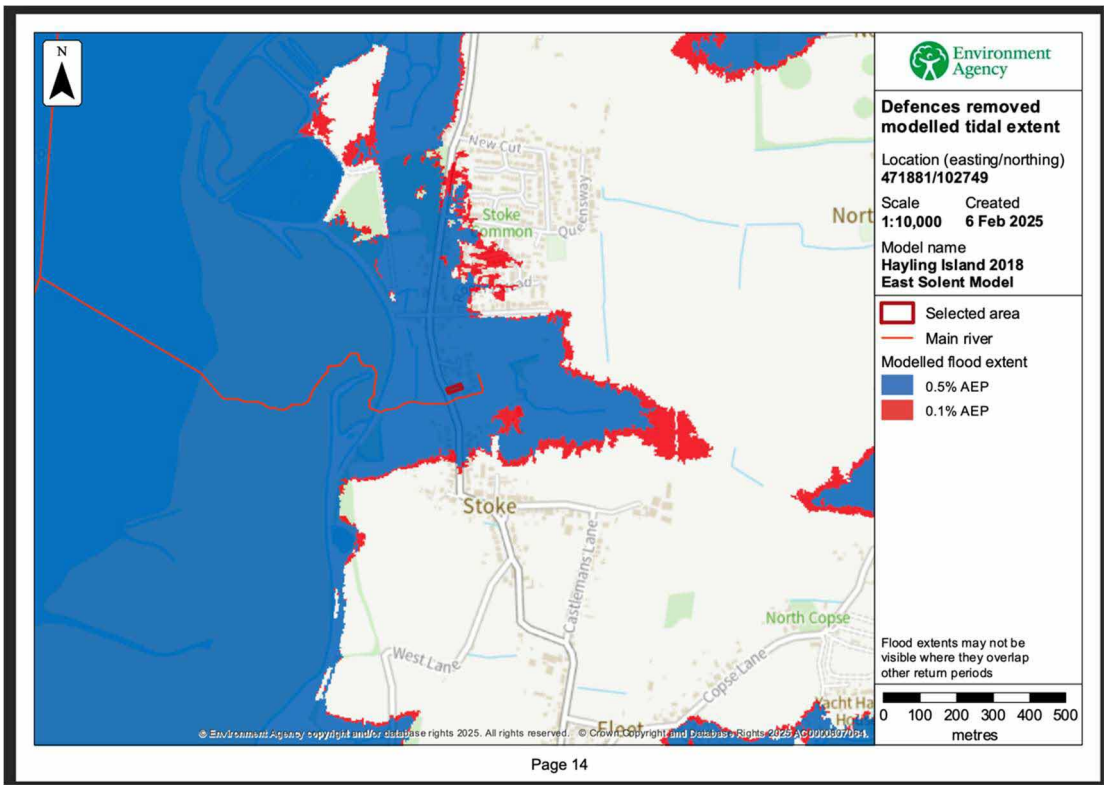
The following data shows probability of flooding at the site within a range of scenarios. The abbreviation AEP refers to - Annual Exceedance Probability

The likely hood of flooding from sea with flood defence in place.



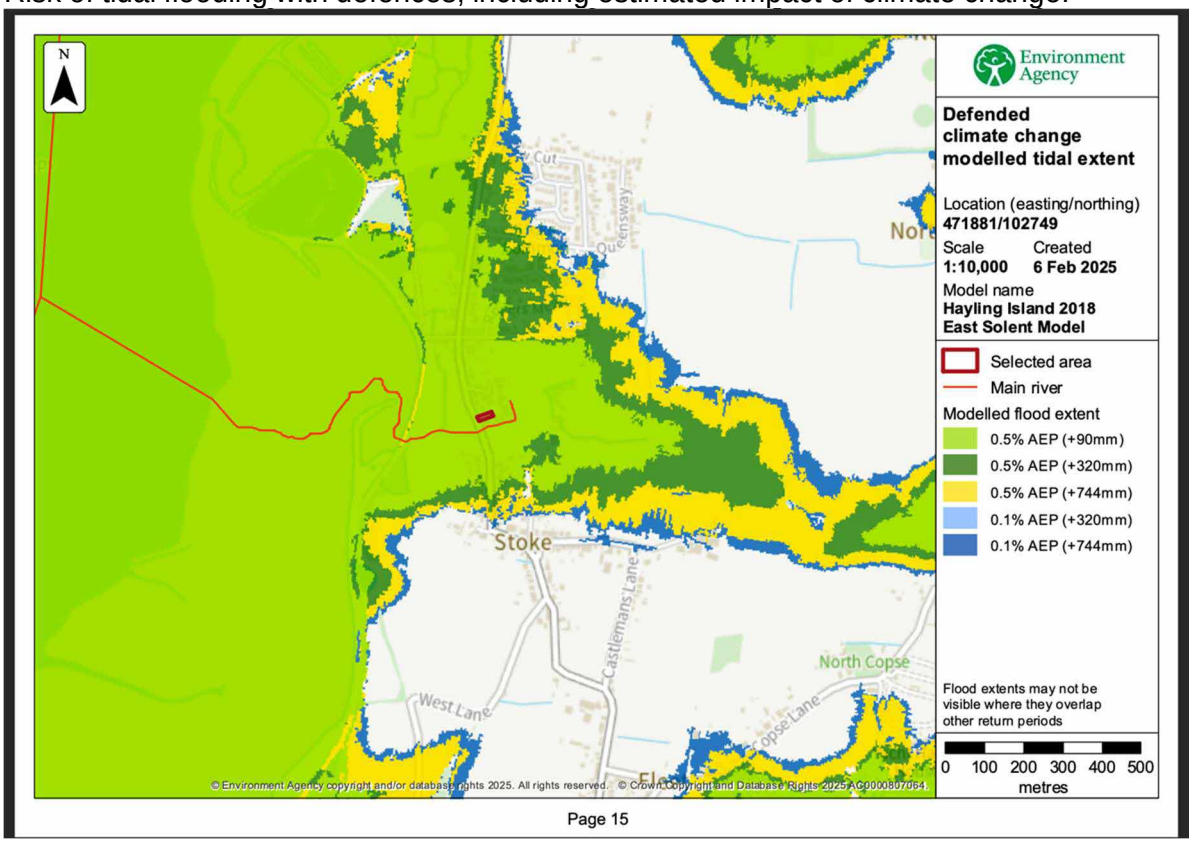



The likelihood of flooding from sea with flood defence removed.



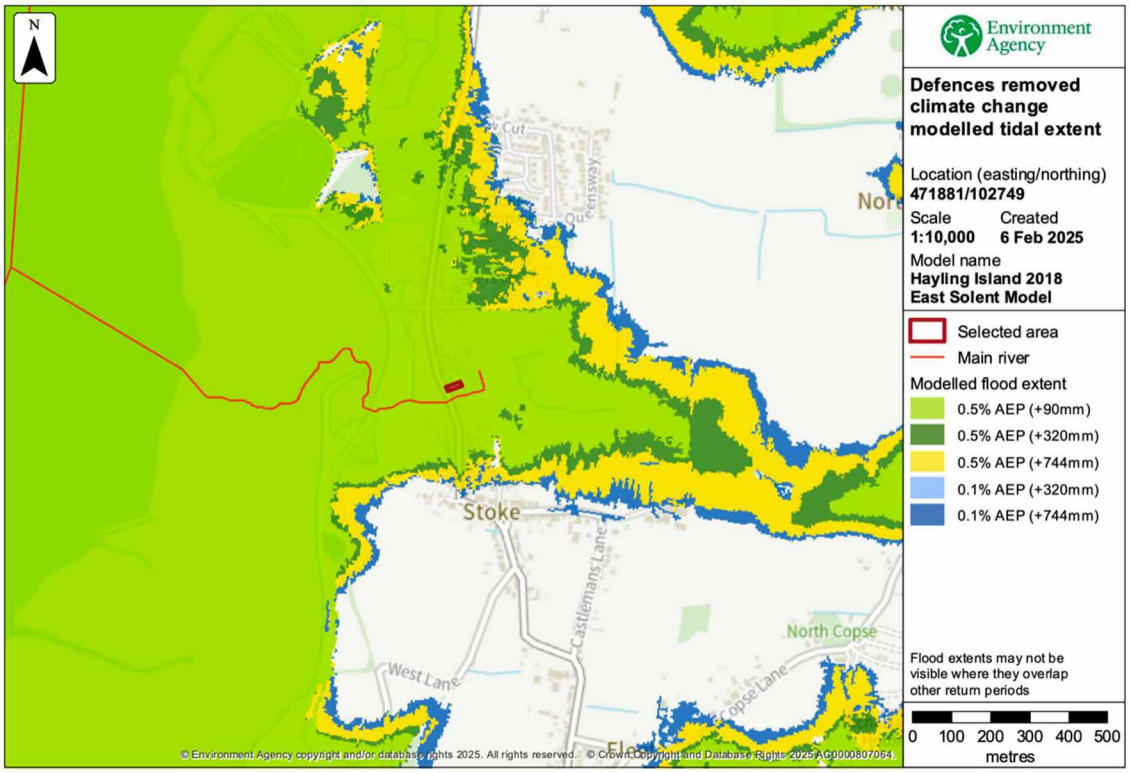

Page 14

Risk of tidal flooding with defences, including estimated impact of climate change.

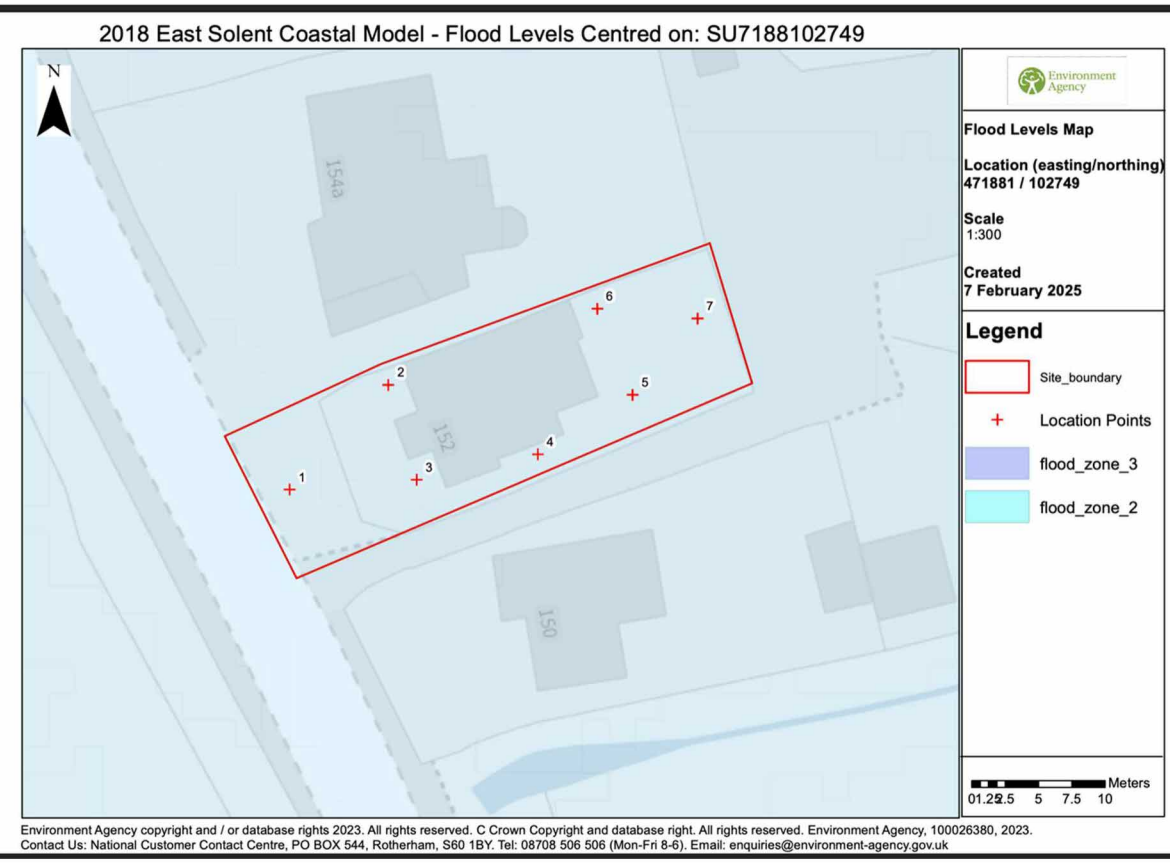



Page 15

Risk of tidal flooding with defences removed, including estimated impact of climate change.


N
Environment Agency
Defences removed climate change modelled tidal extent
Location (easting/northing)
471881/102749
Scale
1:10,000
Created
6 Feb 2025
Model name
Hayling Island 2018 East Solent Model
Selected area
Main river
Modelled flood extent
0.5% AEP (+90mm)
0.5% AEP (+320mm)
0.5% AEP (+744mm)
0.1% AEP (+320mm)
0.1% AEP (+744mm)
Flood extents may not be visible where they overlap other return periods
0 100 200 300 400 500
metres
Stoke
Castlemans Lane
North Copse
West Lane
Copse Lane
© Environment Agency copyright and/or database rights 2025. All rights reserved. © Crown Copyright and Database Rights 2025 AC0000807064.




2018 East Solent Coastal Model - Flood Levels Centred on: SU7188102749
N
Environment Agency
Flood Levels Map
Location (easting/northing)
471881 / 102749
Scale
1:300
Created
7 February 2025
Legend
Site_boundary
Location Points
flood_zone_3
flood_zone_2
Meters
0 1.2 2.5 5 7.5 10
154a
152
150
1
2
3
4
5
6
7
Environment Agency copyright and / or database rights 2023. All rights reserved. C Crown Copyright and database right. All rights reserved. Environment Agency, 100026380, 2023.
Contact Us: National Customer Contact Centre, PO BOX 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

**Water Depths & Levels for SU7188102749**

| | Water Depth (Metres) | | Water Surface Level (mAOD*) | | |
|---|---|---|---|---|---|
| Point | 0.5% Annual Probability/1 in 200 Year (Flood Zone 3) | 0.1% Annual Probability/1 in 1000 Year (Flood Zone 2) | 0.5% Annual Probability/1 in 200 Year (Flood Zone 3) | 0.1% Annual Probability/1 in 1000 Year (Flood Zone 2) | Ground Level |
| 1 | 1.25 | 1.42 | 3.34 | 3.51 | 2.09 |
| 2 | 1.20 | 1.37 | 3.34 | 3.51 | 2.14 |
| 3 | 1.29 | 1.46 | 3.34 | 3.51 | 2.05 |
| 4 | 1.21 | 1.38 | 3.34 | 3.51 | 2.13 |
| 5 | 1.23 | 1.41 | 3.33 | 3.51 | 2.10 |
| 6 | 1.22 | 1.40 | 3.33 | 3.51 | 2.11 |
| 7 | 1.22 | 1.40 | 3.33 | 3.51 | 2.11 |

* Levels in metres above Ordnance Datum Newlyn

Climate change H++ allowances
South East Higher central, cumulative rise from years 2000 to 2125 is 1.2 meters
Current ground level approx. 2.10 +1.2 Total 3.3 meters

South East upper end, cumulative rise from years 2000 to 2125 is 1.6 meters
Current ground level approx. 2.10 + 1.6. Total 3.7 meters

Data from Gov.com (see below) shows there is a high chance that flooding could occur at 600mm, both now and in the future. There is 3.3%. chance that flooding of this nature could occur, which could cause danger. As it is a tidal flood then it is likely the site will be affected for the duration of less than 6 hrs.

# Rivers and the sea: possible flood depths

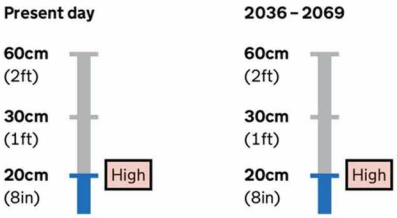
**Your selected location:** 152, Havant Road, Hayling Island, PO11 0LJ

This information tells you the flood risk of the land around a building, not the building itself.

Flooding is hard to predict and there is always a chance any flood water could be deeper than what we show.

▶ What the flood risk ratings mean

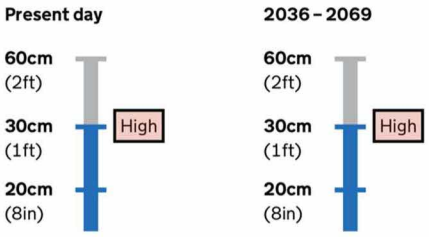
## Chance of flooding to 20cm




At this location there's a **High** chance of flooding to **20cm** (or 8 inches).

Between 2036 and 2069 this stays at a **High** chance of flooding to **20cm** (or 8 inches).

## Chance of flooding to 30cm

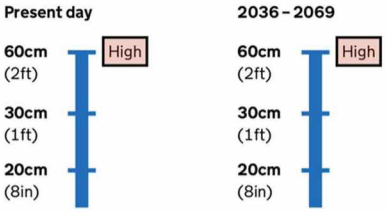



At this location there's a **High** chance of flooding to **30cm** (or 1ft)

Between 2036 and 2069 this stays at a **High** chance of flooding to **30cm** (or 1ft)

At 30cm, flood water can get into homes and buildings. Water at this level can also move a car, damage roads and cause major traffic disruption.

## Chance of flooding to 60cm




At this location there's a **High** chance of flooding to **60cm** (or 2ft)

Between 2036 and 2069 this stays at a **High** chance of flooding to **60cm** (or 2ft)

At 60cm, we expect flood water to get into homes and buildings. Water at this level can float most vehicles, including 4x4s.

Flood protection measures are usually effective up to 60cm. You should not try and keep flood water out of buildings if it's over 90cm. Water at this level can cause collapse or permanent structural damage.

## Surface water flooding

152 Havant Road has very low chance of surface water flooding each year and a low chance of flooding between 2040 and 2060. Therefore, unlikely to cause danger to anyone. If a flood event were to occur, the likely duration that flood water will affect the site will be less than 6 hrs due to its close proximity to the sea.

# Surface water: possible flood depths

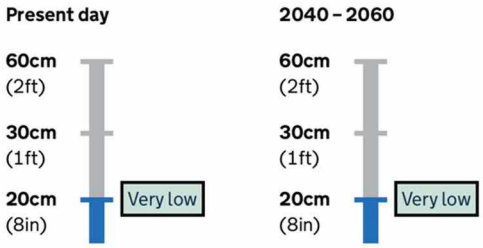
**Your selected location:** 152, Havant Road, Hayling Island, PO11 0LJ

This information tells you the flood risk of the land around a building, not the building itself.

Flooding is hard to predict and there is always a chance any flood water could be deeper than what we show.

▶ What the flood risk ratings mean

## Chance of flooding to 20cm




At this location there's a **Very low** chance of flooding to **20cm** (or 8 inches).

Between 2040 and 2060 this stays at a **Very low** chance of flooding to **20cm** (or 8 inches).

Currently surface water at the site is managed by a soak away. The proposal for future removal of surface water will be managed by a French drain that will remove water from around the perimeter of the building.

## Other flood risks

There is an unlikely risk of flooding from ground water or reservoirs at the development site

# Methods for flood risk management.

Within the proposed scheme we have incorporated both resistance and resilience measures as advised by the surveyor when being assessed for the reflood scheme. These measurements will keep the development safe from flooding over its lifetime.

## Flood control measures.

We have been advised on different measures we can take to reduce water from entering the property in the future. These have comprised of both passive and active measures. Such as: Replacing current sealants with waterproof ones. Repointing brick work in cement mortar to a minimum depth of 12mm. Have a sustainable drainage system, using back water valves in drainage systems minimising the amount of water that can enter the building. Move electric sockets to a hight no lower that 300mm above the estimated flood line and fit flood doors and barriers where needed.

Although some of these methods wet-proof the development, the proposal is to dry-proof the property so that water entering the property is eliminated altogether. The proposal is to enclose ¾ of the perimeter with a brick wall of at least 1 meter in height and then have a ramp/stairs to aid access and egress of the property. This will prevent water entering the building unless it reaches a height of 0.75. In the event of water getting to heights above 0.75 then the house will still be wet proofed, and addition the installation of French drains around the building will remove any surplus water within the flood defence boundary. Allowing for flood defence measures to be utilised throughout the lifetime of the development.

Building the wall will not impact on environmental factors such as wildlife or vegetation as it will just be replacing fences that are already there.

## Flood mitigation measures.

As the development site is in flood zone 3 we already have some mitigating measure in place. We have already subscribed to the environment agency warning flood services. We will have a flood plan in place in case the property is flooded again. Which will include things like: being in touch with a local support group or local food banks. Have quick access to essential items, such as; spare clothing, medication, important documents and necessary contact details.

Having the property protected by flood defences will enable us to have safe access and egress from and to the property via the ramp/steps leading to the front door. In the event that the flood rises higher that 0.75mtrs or the flood defence walls fail, then we can evacuate the building either by; Any of the downstair windows as they all have emergency openings or alternatively there is a veranda with patio door on the first floor that we can exit the building from.

## In Conclusion.

The data submitted indicates the current and future impact to property in the event of a 1-200 year tidal & 1-1000 year fluvial flood and the lifetime of the development.

Any questions please contact:

Octavia Smart [redacted]