

JUNE 2017

Graham Nicolls Limited

building design+technology

21 King Street Arundel
West Sussex BN18 9BJ

TO: Planning Department
Arun District Council
Civic Centre
Maltravers Road
Littlehampton

12. 06. 2017

FLOOD RISK ASSESSMENT

90/91 South Terrace. Littlehampton. Sussex
Proposed Alterations Extension and Change of Use

- 1.0 A Product 4 report attached was obtained from the Environment Agency with particular regard to this application site and location Reference SSD/5362/CW dated 24.11.2014.
- [a] Flood Map for Planning Centered on 90/91 South Terrace showing that the site is within a Flood Zone 3.
 - [b] Tuflow Modelled Extents Centered on 90/91 South Terrace.
 - [c] Tuflow Modelled Depths and Levels Centered on 90/91 South Terrace.
 - [d] Letter dated 24.11.2014 from the Environment Agency containing Supporting Information. In particular please note the paragraph headed 'Flood Defences' confirming the evidence shown on the enclosed maps and stating that the new East Bank Flood Defence Scheme has reduced the risk of flooding by an estimated 33% and improved the chances of flooding to 1 in 300 which will result in a re-calibration of the enclosed flood risk maps.
 - [e] The key element in our response to this report is to ensure that the lowest floor level which will contain habitable accommodation will be above the stated 4.95 AOD tidal level shown in the 1;200 year undefended column. This will be achieved by raising the existing floor level as shown on the application drawings.
- 1.01 The site is currently composed entirely of hard surfaces which drain to gullies and thence to the public sewer system. The proposed landscaping scheme as attached provides for small areas of planting which will provide some natural soakaway potential.
- 1.02 The site is shown as being located in a flood zone however there are no records of flooding on the site.
- 1.04 The floor level of the proposed flats will be raised to a minimum level of 5.00 AOD
- 1.05 Electricity meters will be positioned above predicted flood level.
- 12.06..2017 Graham Nicolls Limited

Graham Nicholls
Graham Nicholls Ltd
21 King Street
Arundel
West Sussex
BN10 9DJ

Our ref: SSD/5362/CW
Your ref:
Date: 24/11/2014

Dear Mr Nicholls

**Provision of Product 4 for 90-91 South Terrace, Littlehampton, West Sussex
BN17 5LJ**

Thank you for your request to use Environment Agency data. The information is attached.

If you have requested this information to help inform a development proposal, then you should note the detail in the attached advisory text on the use of Environment Agency information for Flood Risk Assessments / Flood Consequence Assessments.

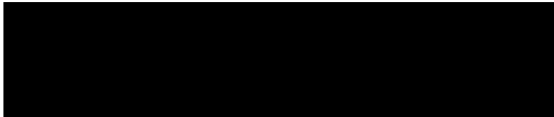
Supporting Information

The information is provided subject to the enclosed notice, which you should read.

Flood Defences

As a result of the Littlehampton Arun East Bank Tidal Walls Flood Defence Scheme the flood defences on the East Bank of the River Arun in the town of Littlehampton have been raised to 4.8mAOD. These have been designed to reduce the risk of flooding to an estimated 0.33% (1in300yr) up to the year 2110. Further details available at <http://www.environment-agency.gov.uk/homeandleisure/floods/114650.aspx>

Guildbourne House, Chatsworth Road, Worthing, West Sussex BN11 1LD



Flood History

We do not have any records of previous flood events affecting this location. However, I would suggest contacting Arun District Council for a more comprehensive flood history check.

If you have any queries or would like to discuss the content of this letter further please don't hesitate to contact me.

Yours faithfully

Jon Denman
FCRM Officer
Partnership and Strategic Overview Team – West Sussex



Enc. Detailed FRA/FCA Map, Modelled Extents and Levels

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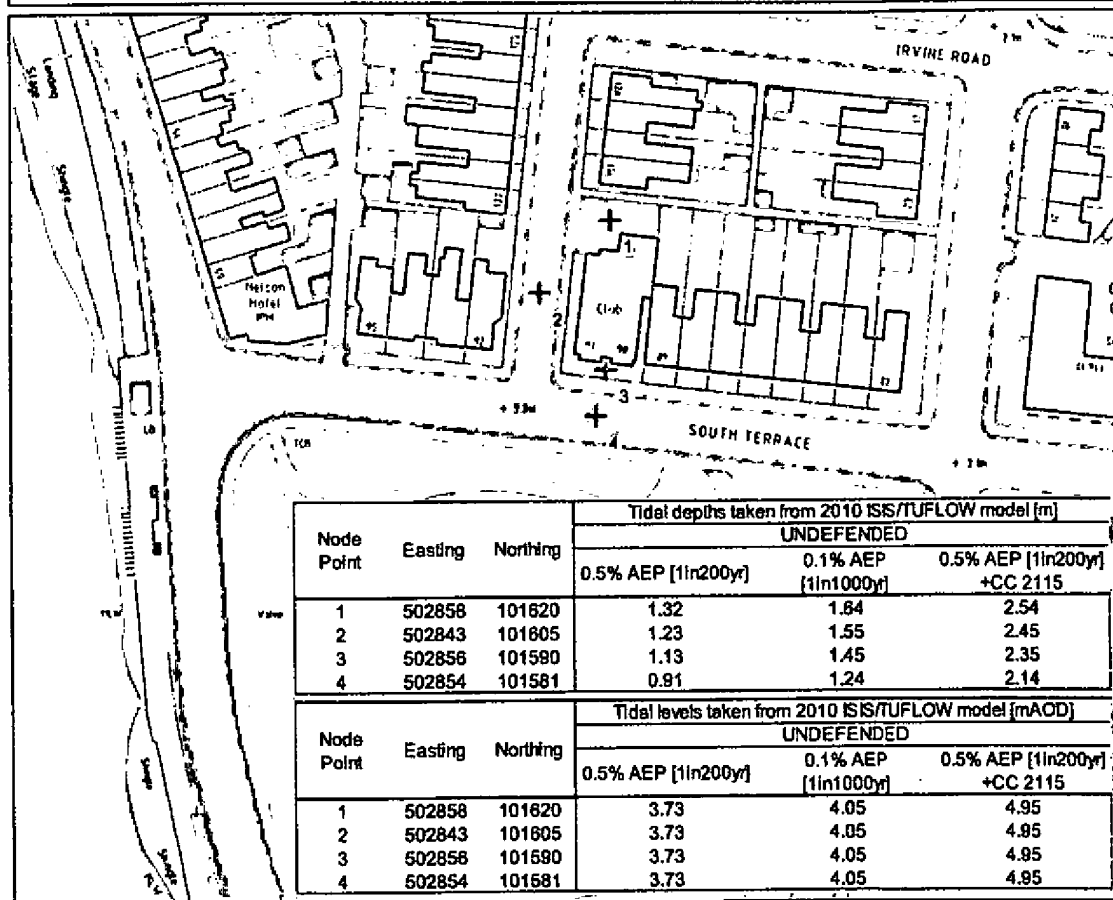
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Contact: enquiries@environment-agency.gov.uk

08708 506506

**2010 Arun to Adur TUFLOW Modelled Depths and Levels Centered on -
91+92, South Terrace, Littlehampton - Created 24/11/2014 [Ref: SSD/5362/CW]**



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Legend

+ Node Point
1

Node Point	Easting	Northing	Tidal depths taken from 2010 ISIS/TUFLOW model [m]		
			UNDEFENDED		
			0.5% AEP [1in200yr]	0.1% AEP [1in1000yr]	0.5% AEP [1in200yr] +CC 2115
1	502858	101620	1.32	1.84	2.54
2	502843	101605	1.23	1.55	2.45
3	502856	101590	1.13	1.45	2.35
4	502854	101581	0.91	1.24	2.14

Node Point	Easting	Northing	Tidal levels taken from 2010 ISIS/TUFLOW model [mAOD]		
			UNDEFENDED		
			0.5% AEP [1in200yr]	0.1% AEP [1in1000yr]	0.5% AEP [1in200yr] +CC 2115
1	502858	101620	3.73	4.05	4.95
2	502843	101605	3.73	4.05	4.95
3	502856	101590	3.73	4.05	4.95
4	502854	101581	3.73	4.05	4.95

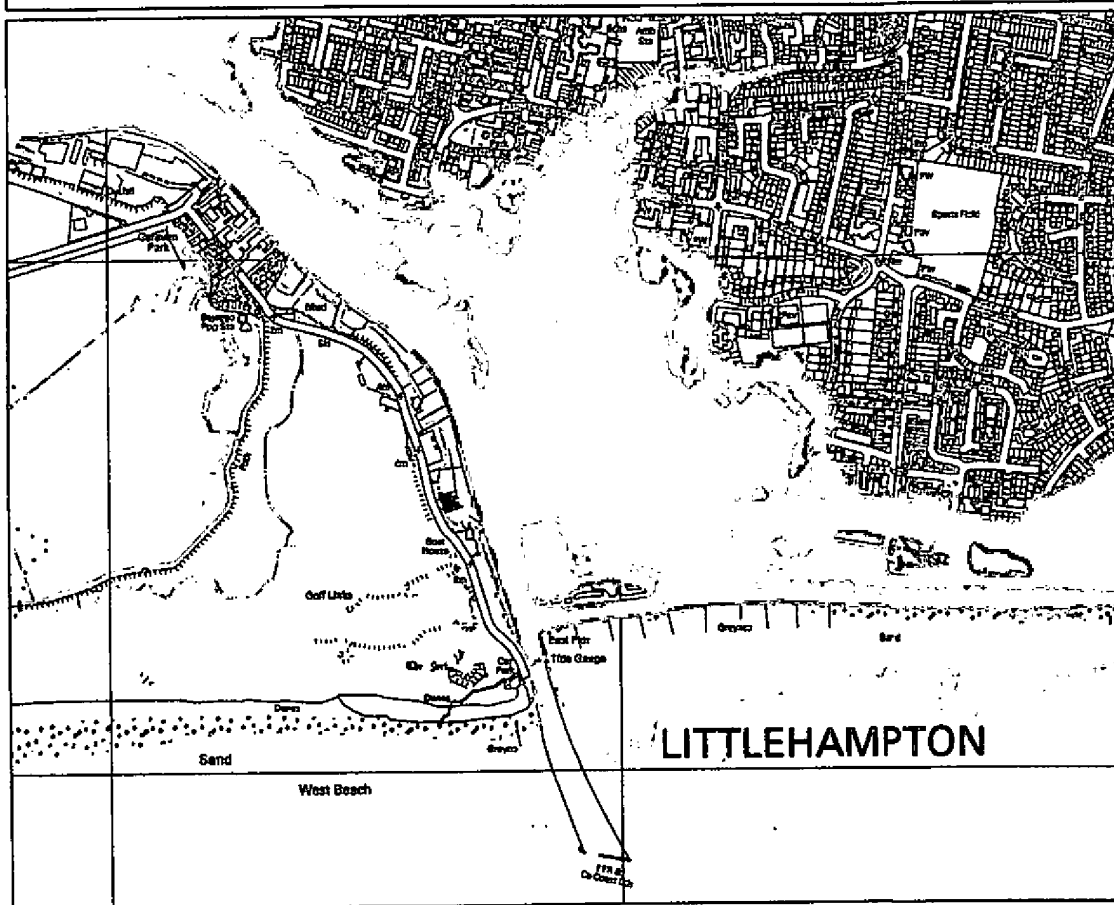
1:1,000
*when printed at A4.

0 10 20
Meters



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**2010 Arun to Adur TUFLOW Modelled Extents Centered on 90+91, South Terrace, Littlehampton -
Created 24/11/2014 [Ref: SSD/5362/CW]**



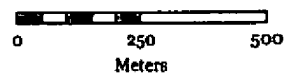
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Legend

- 0.5% AEP (1in200) Undefended
- 0.1% AEP (1in1000) Undefended
- 0.5% AEP (1in200) Und +CC (2115)

1:10,000 *

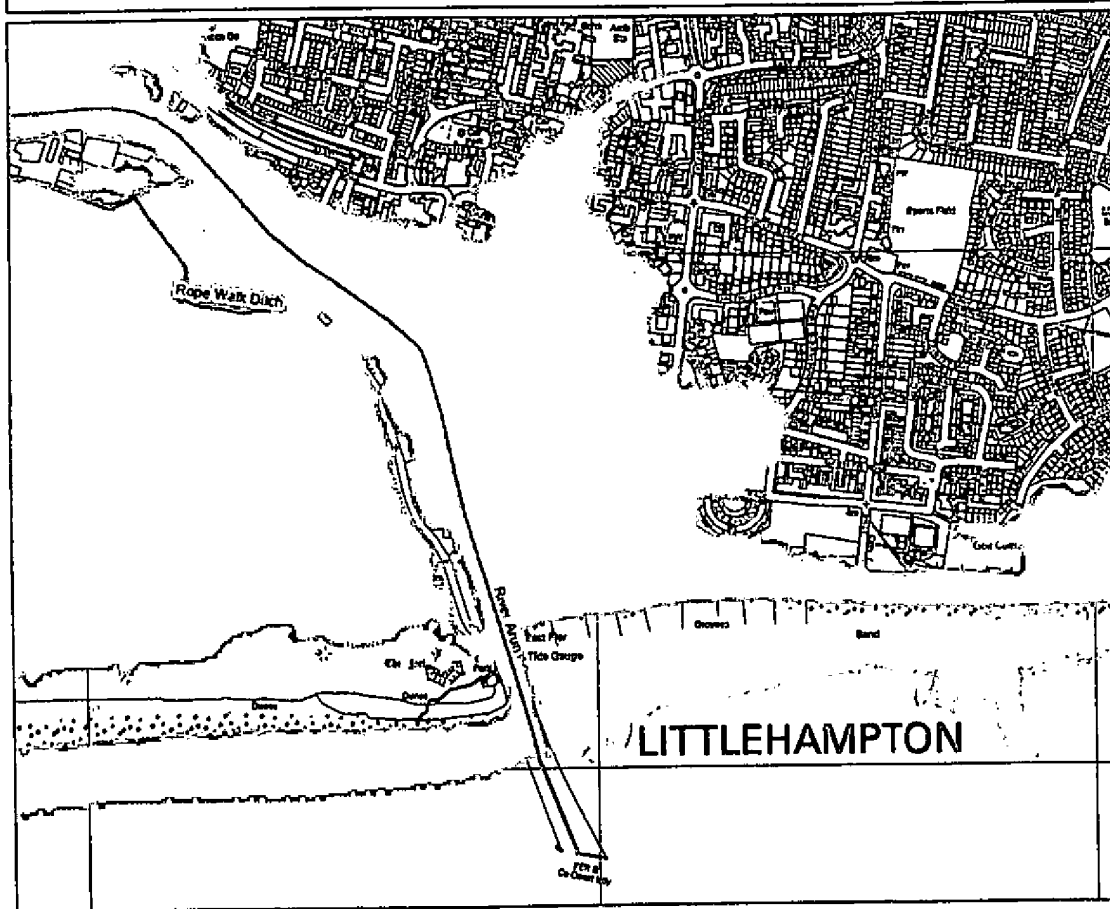
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**Flood Map for Planning Centered on
91+92, South Terrace, Littlehampton - Created 24/11/2014 [Ref: SSD/5362/CW]**



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Legend

- Main River
- 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 an 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 of the sea with up to a 1 in 1000 chance of occurring each year.

1:10,000 *

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0 130 260
Meters



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