

**Location Plan**

© Crown Copyright. All rights reserved. Environment Agency, 100026380, 2004

**Cross Section References**

River: DRN

Reach: 01

Chainage: 15304U

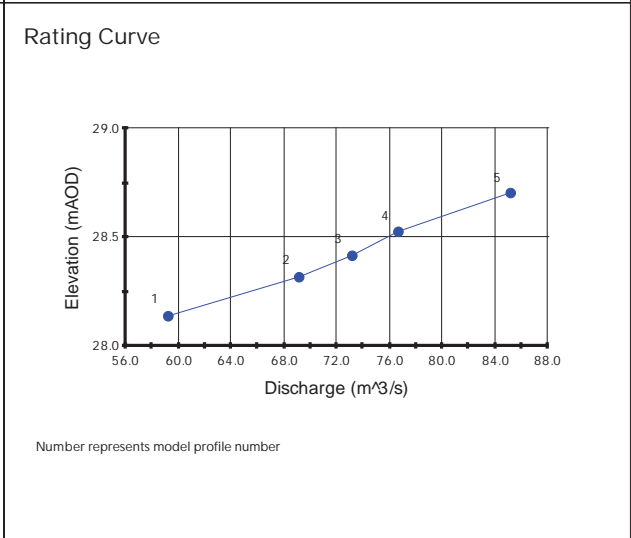
Section Type: SECTION

OS NGR: SE 41235 06743

Survey Dwg Ref: N/A

Photograph Ref: DEAR\_15304.JPG

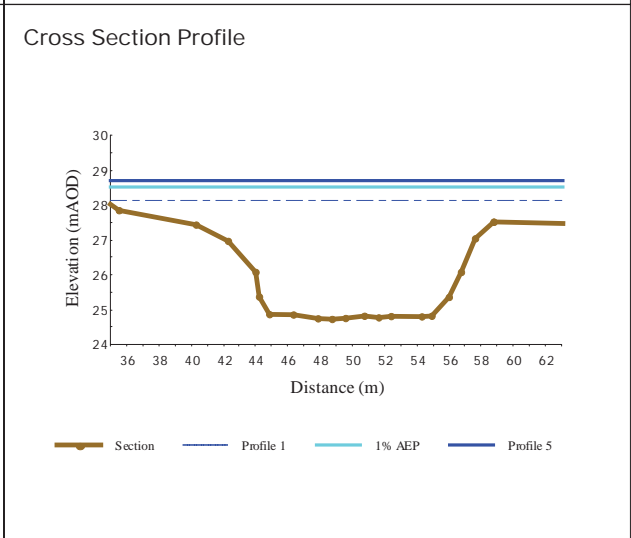
Next  
 Section D/s: 14998U  
 Section U/s: 15555



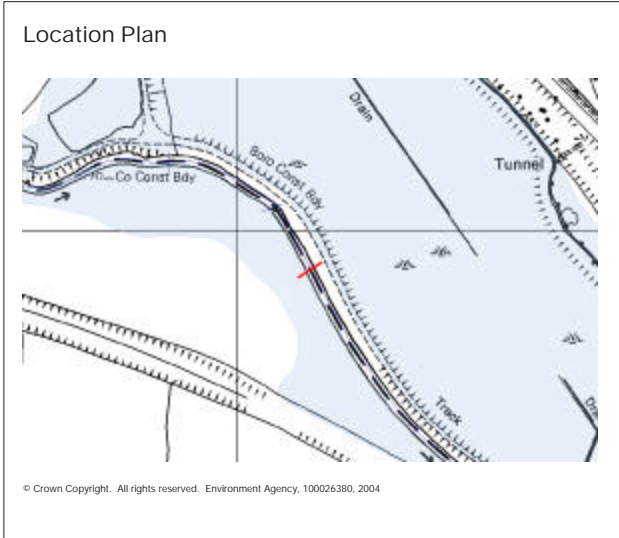
**Summary of Results**

Profile No	AEP (%)	Flow (m <sup>3</sup> /s)	Water Level (mAOD)	Velocity (m/s)
1	4.00	59.2	28.141	0.83
2	2.00	69.2	28.319	0.86
3	1.33	73.2	28.417	0.87
4	1.00	76.7	28.526	0.87
5	0.67	85.1	28.703	0.88

Level of Left Bank 27.440 mAOD  
 Level of Right Bank 27.520 mAOD  
 AEP: Annual Exceedance Probability = 1/T, where T = Return Period (Years)

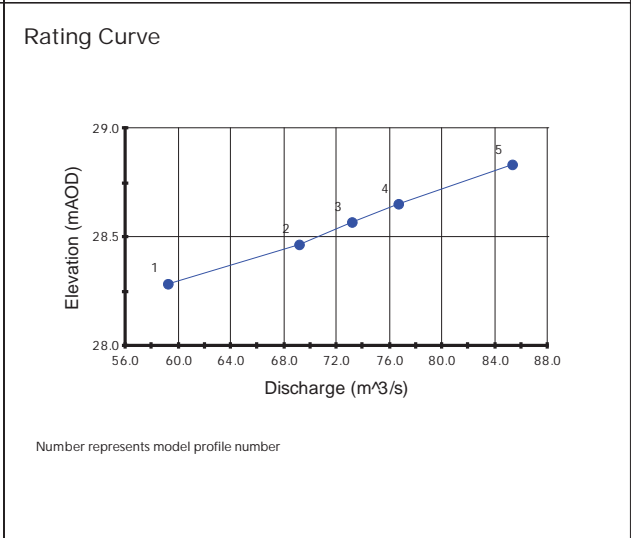


DRN: 01: CROSS SECTION NUMBER 15304U



### Cross Section References

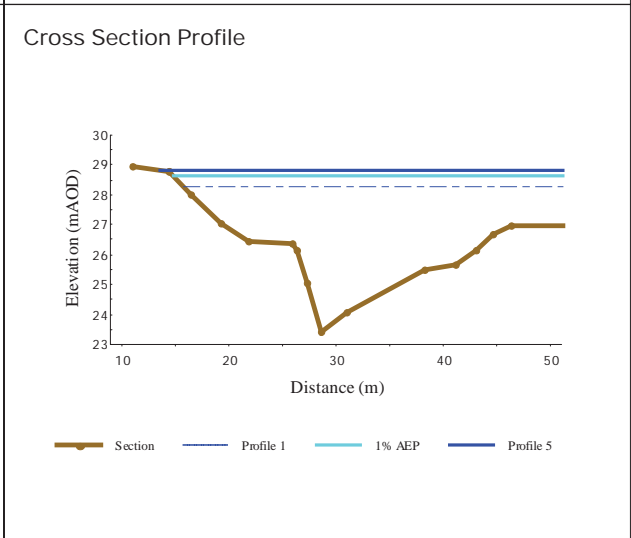
River:	DRN
Reach:	01
Chainage:	15555
Section Type:	SECTION
OS NGR:	SE 41094 06949
Survey Dwg Ref:	N/A
Photograph Ref:	DEAR_15650.JPG
Next	
Section D/s:	15304U
Section U/s:	15650U



### Summary of Results

Profile No	AEP (%)	Flow (m³/s)	Water Level (mAOD)	Velocity (m/s)
1	4.00	59.2	28.287	0.51
2	2.00	69.2	28.466	0.54
3	1.33	73.2	28.568	0.55
4	1.00	76.7	28.652	0.56
5	0.67	85.3	28.832	0.57

Level of Left Bank 28.790 mAOD  
 Level of Right Bank 26.980 mAOD  
 AEP: Annual Exceedance Probability = 1/T, where T = Return Period (Years)



DRN: 01: CROSS SECTION NUMBER 15555

# Flood Map for Park Spring Road, Houghton Main, Barnsley - Date Created: 07/11/2013 Ref: 27509



www.environment-agency.gov.uk

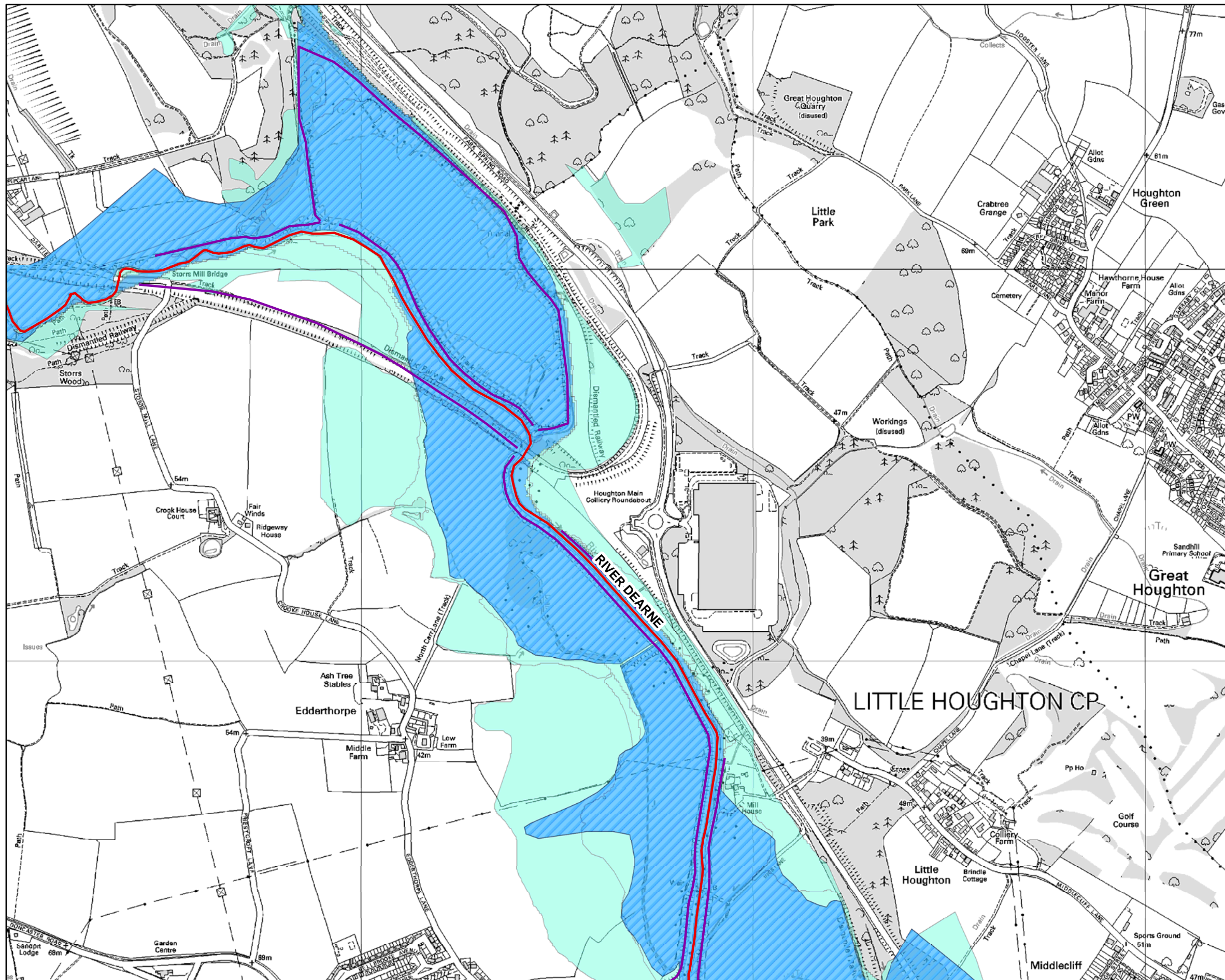
Scale: 1:10,000

when reproduced @ A3

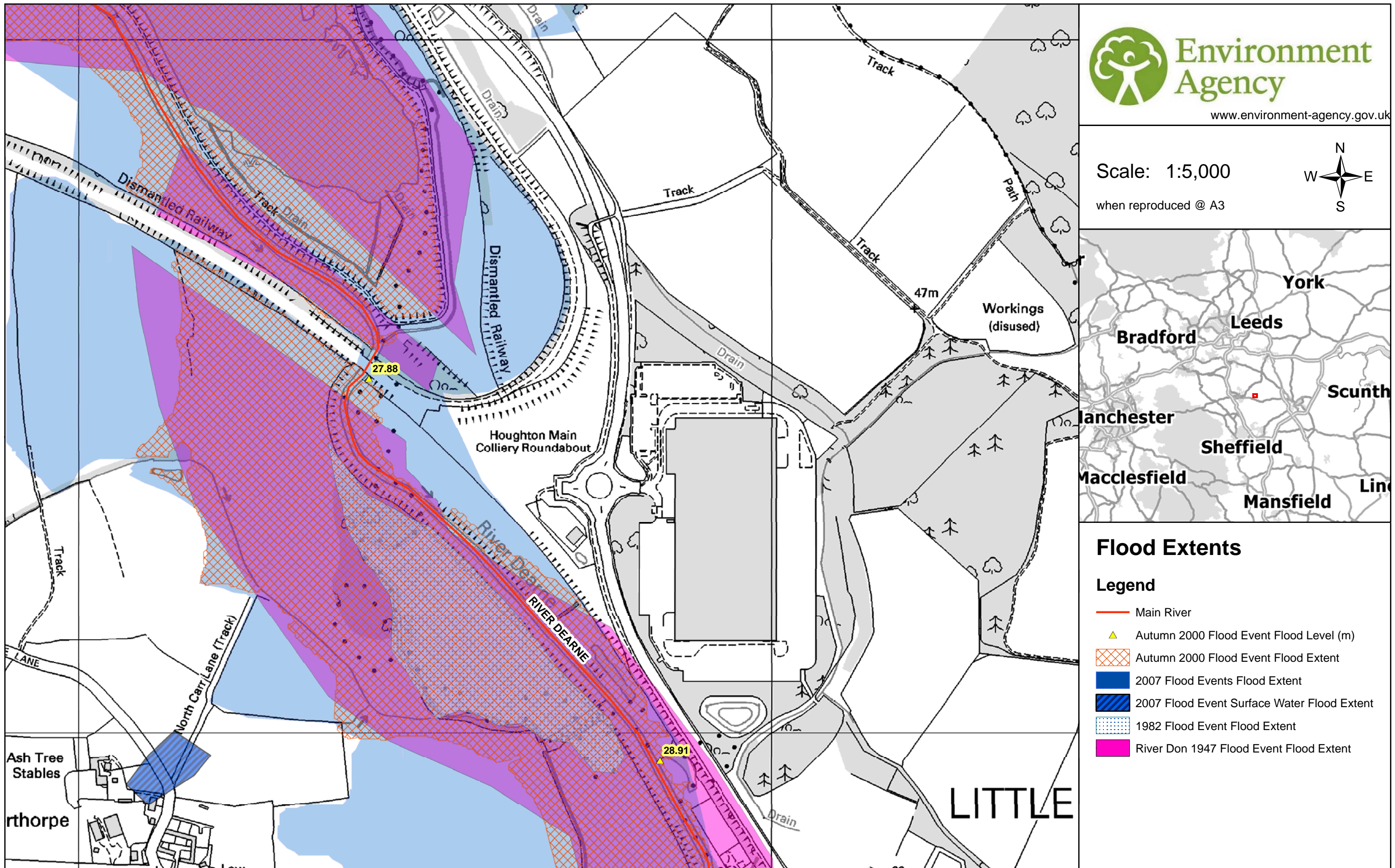


## LEGEND

- Main River
- Flood Map Flood Defences
- Flood Zone 3 (FZ3)
- Flood Zone 2 (FZ2)
- Flood Storage Areas



# Flood History Map for Park Spring Road, Houghton Main, Barnsley- dated: 07/11/2013 [Ref: 27509]



## Standard notice [not for use with Special Data, Personal Data or unlicensed 3<sup>rd</sup> party rights]



### **Information warning**

We (The Environment Agency) do not promise that the Information supplied to You will always be accurate, free from viruses and other malicious or damaging code (if electronic), complete or up to date or that the Information will provide any particular facilities or functions or be suitable for any particular purpose. You must ensure that the Information meets your needs and are entirely responsible for the consequences of using the Information. Please also note any specific information warning or guidance supplied to you.




### **Permitted use**

- The Information is protected by intellectual property rights and whilst you have certain statutory rights which include the right to read the Information, you are granted no additional use rights whatsoever unless you agree to the licence set out below.
- Commercial use of anything except EA OpenData is subject to payment of a £50 licence fee (+VAT) for each person seeking the benefit of the licence, except for use as an Environment Agency contractor or for approved media use.
- To activate this licence you do not need to contact us (unless you need to pay us a Commercial licence fee) but if you make any use in excess of your statutory rights you are deemed to accept the terms below.





### **Licence**

We grant you a worldwide, royalty-free (apart from the £50 licence fee for commercial use), perpetual, non-exclusive licence to use the Information subject to the conditions below.

#### **You are free to:**

-  copy, publish, distribute and transmit the Information
-  adapt the Information
-  exploit the Information 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 by including the following attribution statement:  
*"Contains Environment Agency information © Environment Agency and database right"*
-  ensure that you do not use the Information in a way that suggests any official status or that We endorse you or your use of the Information
-  ensure that you do not mislead others or misrepresent the Information or its source or use the Information in a way that is detrimental to the environment, including the risk of reduced future enhancement
-  ensure that your use of the Information does not breach the Data Protection Act 1998 or the Privacy and Electronic Communications (EC Directive) Regulations 2003

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

### **No warranty**

The Information is licensed 'as is' and We exclude all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law. We 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. We do not guarantee the continued supply of the Information.

### **Governing Law**

This licence is governed by the laws of England and Wales.

### **Definitions**

"Information" means the information that is 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.

"Commercial" means:

- offering a product or service containing the Information, or any adaptation of it, for a charge, or
- internal use for any purpose, or offering a product or service based on the Information for indirect commercial advantage, by an organisation that is primarily engaged in trade, commerce or a profession.

## Appendix 4 – Yorkshire Water Correspondence

---

## YORKSHIRE WATER













### PROTECTION OF MAINS AND SERVICES

1. The position of Yorkshire Water Services Ltd (YWS) apparatus shown on the existing mains record drawing(s) indicates the **general** position and nature of our apparatus and the accuracy of this information cannot be guaranteed. Any damage to YWS apparatus as a result of your works may have serious consequences and you will be held responsible for all costs incurred. Prior to commencing major works, the exact location of apparatus must be determined on site, if necessary by excavating trial holes. The actual position of such apparatus and that of service pipes which have not been indicated must be established on site by contacting the Customer Helpline (0845 124 24 24) for water and (0845 124 24 29) for sewerage.
2. The public sewer network is lawfully retained in its existing position and the sewerage undertaker is entitled to have it remain so without any disturbance. The provisions of section 159 of the Water Industry Act 1991 provides that the sewerage undertaker may "inspect, maintain, adjust, repair or alter" the network. Those rights are given to enable the sewerage undertaker to perform its statutory duties. Any development of the land or any other action that unacceptably hindered the exercise of those rights would be unlawful.
3. Ground levels over existing YWS apparatus are to be maintained. Sewers in highways will **generally** be laid to give 1200mm of cover from finished ground level working to kerb races, other permanent identification of the limits of the road or to an agreed line and level. Substantial increases or decreases to this 1200mm depth of cover will result in the sewer being re-laid at your expense.
4. If surface levels are to be decreased / increased significantly the effects on existing water supply apparatus will be carefully considered and if any alterations are necessary, the costs of the alterations will be recharged to you in full. Outlets on fire hydrants must be no more than 300mm below the new levels and all surface boxes must be adjusted as part of the scheme.
5. To enable future repair works to be carried out without hindrance; any pipe, cable, duct, etc. installed parallel to a water main or service pipe should not be installed directly over or within 300mm of a water main or service pipe or 1000mm of a waste water asset. Where a pipe, cable, duct, etc. crosses a main or service it should preferably cross perpendicular or at an angle of no less than 45° and with a minimum clearance of 150mm. These requirements apply to activities within an existing highway and are relevant to the installation of pipes, cables, ducts, etc. up to and including 250mm in diameter. Necessary protection measures for installations greater than 250mm in diameter and/or in private land will need to be agreed on an individual basis. Installations within a new development site must comply with the National Joint Utilities Group publication Volume 2: NJUG Guidelines On The Positioning Of Underground Utilities Apparatus For New Development Sites.
6. All excavation works near to YW apparatus should be by hand digging only.
7. Backfilling with a suitable material to a minimum 300mm above YW apparatus is required.
8. Adequate support must be provided where any works pass under YW apparatus.
9. Jointing chambers, lighting columns and other structures must be installed in such a way that future repair or maintenance works to YW apparatus will not be hindered.
10. Apparatus such as; railings, sign posts, etc. must not be placed in such a way that they prevent access to or full operation of controlling valves, hydrants or similar apparatus. YWS surface boxes must not be covered or buried. Any adjustment, alteration or replacement of manhole covers must be agreed on site prior to the commencement of the works with a YWS Inspector who may be contacted via our Call Centre on 0845 124 24 29.
11. Explosives shall not be used within 100 metres of any Yorkshire Water Services apparatus or installations.
12. Vibrating plant should not be used directly over any apparatus. Movement or operation by vehicles or heavy plant is not to be permitted in the immediate vicinity of YWS plant or apparatus unless there has been prior consultation and, if necessary, adequate protection provided without cost to YWS.
13. **Under no circumstances** should thrust boring or similar trenchless techniques commence until the actual position of the Company's mains/services along the proposed route have been confirmed by trial holes.
14. Any alterations to the highway should be notified following the procedures outlined in the New Road and Street Works Act 1991 Code of Practice; Measures Necessary Where Apparatus Is Affected By Major Works (Diversionsary Works).
15. You will be held responsible for any damage or loss to YWS apparatus during and after completion of work, caused by yourselves, your servant or agent. Any damage caused or observed to YWS plant or apparatus should be immediately reported to YWS. Should YW incur any costs as a result of non-compliance with the above, all costs will be rechargeable in full.
16. You should ensure that nothing is done on the site to prejudice the safety or operation of YWS employees, plant or apparatus.
17. In accordance with the New Roads and Street Works Act 1991, Chapter 22, Part 3, Section 80. The location of any identified YW asset "*which is not marked, or is wrongly marked, on the records made available*" should be communicated back to Yorkshire Water. The location of the apparatus should be identified on copies of the supplied plans which should be returned to Yorkshire Water (Asset Records Team) with photographic supporting evidence where possible.
18. The Government has decided that responsibility for private sewers serving two or more properties and lateral drains (the section of







pipe beyond the boundary of a single property, connecting it to the public sewer) will be transferred to the water companies on Oct 1 2011. Private pumping stations will also transfer during the period 1 October 2011 – 1 Oct 2016. Records of these assets may not yet be shown on the existing mains record drawing(s). If you encounter any of these assets you must inform Yorkshire Water Services Ltd (YWS).

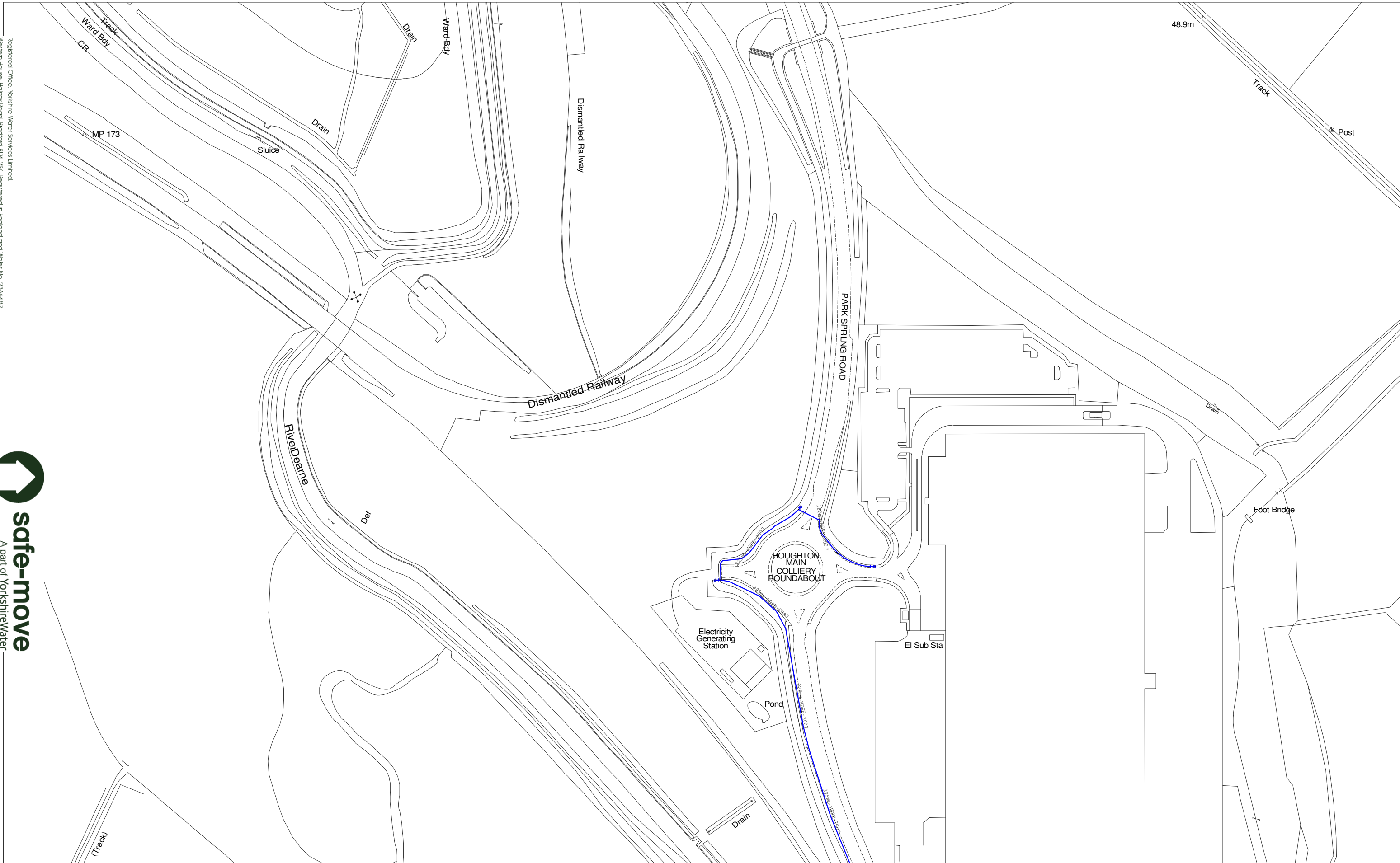
19. Please note that the information supplied on the enclosed plans is reproduced from Ordnance Survey material with the permission of the Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office, © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. Licence Number 1000019559.

## Sewer Legend

	Combined Sewer		S24 Combined Sewer
	Surface Water Sewer		S24 Surface Water Sewer
	Foul Sewer		S24 Foul Sewer
	Section 104 Sewer		Public Rising Main
	Pumping Station		Abandoned Sewer
	Public Sewage Treatment Works		Syphon Sewer & Vacuum Sewer
	+		Property Identifier


## Water Legend

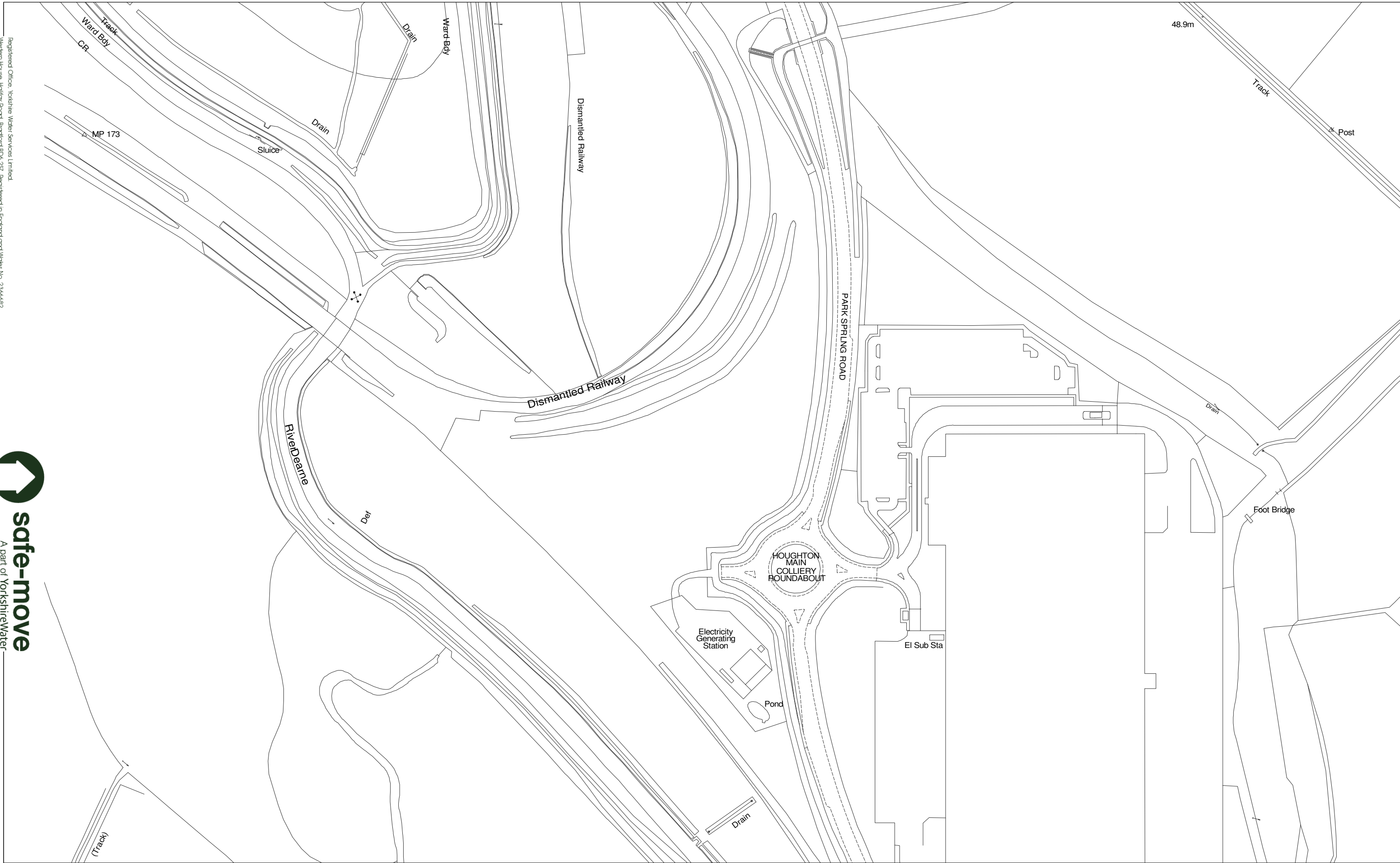
	Water Main 4" and below
	Water Main 4" and above
	Raw Water Main
	Private Water Main
	Fire Hydrant
	Pumping Station



Registered Office: Yorkshire Water Services Limited  
 Western House, Halifax Road, Bradford BD6 2ZL, Registered in England and Wales No. 2366682




441256 : 406191	Map Name : SE4106SW	Title	Partial Key	The position and depths of apparatus shown on this plan are approximate only. The exact positions and depths should be obtained by excavation trial holes.
	Yorkshire Water, PO Box 500, Halifax Road, Bradford BD6 2LZ Contact Name : Ms H Webster Contact Tel :	Notes  (Ody) COPYRIGHT STATEMENTS: Reproduced by permission of Ordnance Survey on behalf of HMSO © Crown copyright and database 2004. All rights reserved Ordnance Survey Licence number 100019559	Water mains up to 4" in diameter <span style="color: red;">—</span> Water mains over 4" in diameter <span style="color: blue;">—</span> Raw water mains <span style="color: green;">—</span> Private water mains <span style="color: yellow;">—</span> Drg No : Date Req : 20/03/2014, 09:04:53 Source : Water Network Enquiry	Scale : 1:2500 Maris No : Date Gen : 20/03/2014, 09:04:53



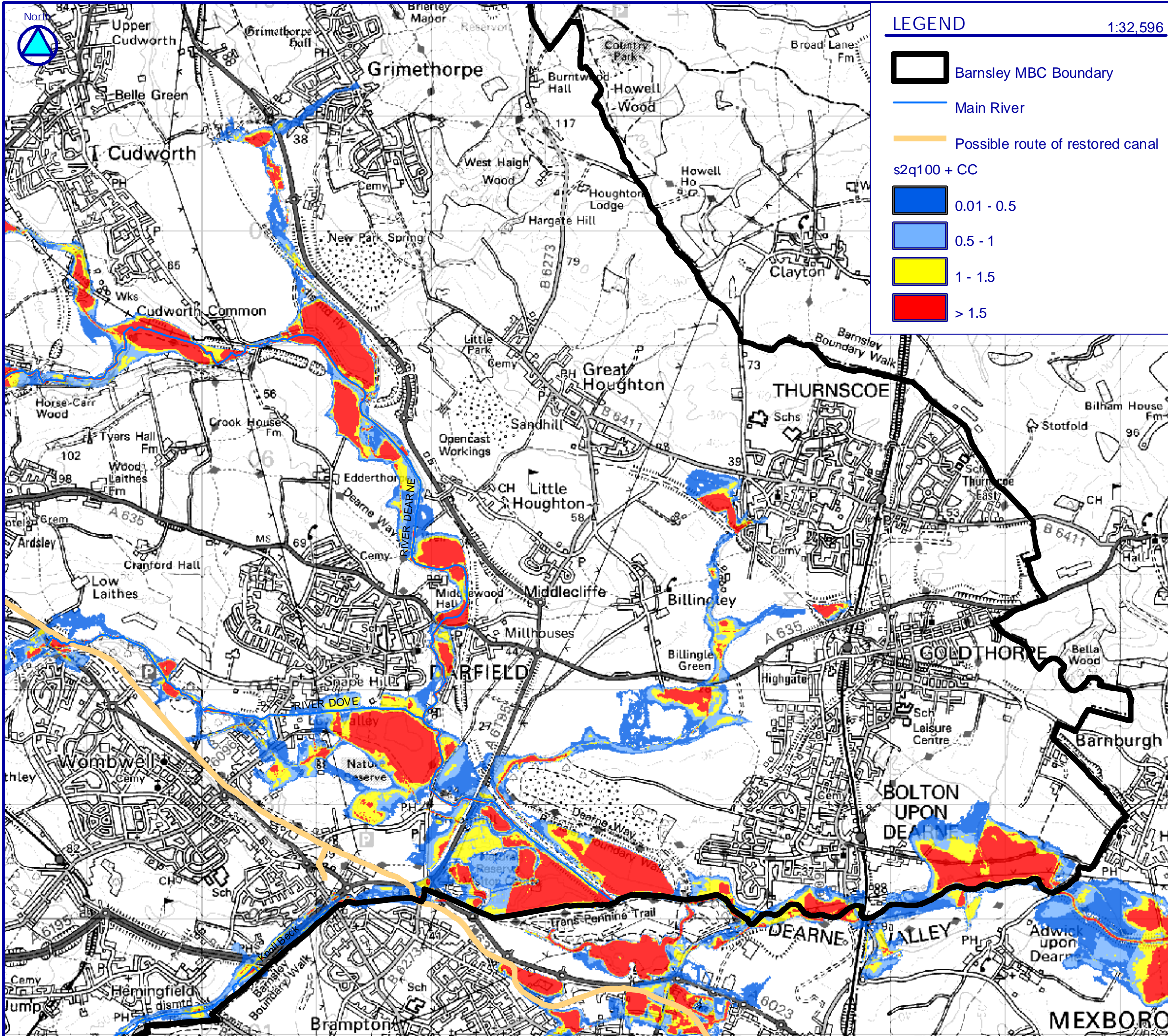
Registered Office, Yorkshire Water Services Limited  
 Western House, Halifax Road, Bradford BD6 2ZJ, Registered in England and Wales No. 2366682



<p>441256 : 406191</p>  <p>Yorkshire Water,        PO Box 500,        Halifax Road,        Bradford BD6 2LZ        Contact Name :        Ms H Webster        Contact Tel :</p>	<p>Map Name : SE4106SW</p>	<p>Title</p> <p>Notes</p> <p>(Ody) COPYRIGHT STATEMENTS: Reproduced by permission of Ordnance Survey on behalf of HMSO        © Crown copyright and database 2004. All rights reserved Ordnance Survey Licence number 100019559</p>	<p>Partial Key</p> <p>Foul Sewer = F        Combined Sewer = C        Surface Water Sewer = SW        Trade Sewer = TD        Partially Separate = PS</p> <p>Date Req : 20/03/2014, 09:05:10</p> <p>Source : Sewer Network Enquiry</p>	<p>This plan is furnished as a general guide only and no warranty as to its correctness is given or implied. This plan must not be relied upon in the event of excavations or other works made in the vicinity of public sewers. No house or property connections are shown.</p> <p>Date Gen : 20/03/2014, 09:05:12</p>
---	----------------------------	---	--	---

## Appendix 5 – SFRA Extracts

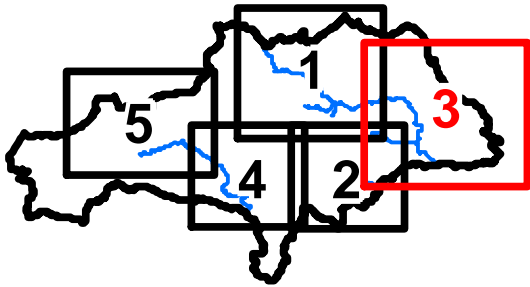
---



LEGEND 1:32,596

- Barnsley MBC Boundary
- Main River
- Possible route of restored canal
- s2q100 + CC**
- 0.01 - 0.5
- 0.5 - 1
- 1 - 1.5
- > 1.5

KEYPLAN



**Note:**  
This map shows the potential scale of flood inundation for a range of severe overtopping flood events and different standards of flood defence. They do not include the impact of a breach or failure of these defences.

Typical range of defence standards for the River Don and Deane is to protect up to a 1 in 30year (3%) return period.

s2 = 1 in 2year Standard of Defence  
q100 = 1 in 100year or 1% probability flood event.  
Climate Change scenario represents 20% increase of flood flow.

This map should be considered in support of the Environment Agency Flood Zone Maps to aid the Sequential and Exception Tests.  
It should not be considered in isolation without reference to the other SFRA Flood Risk Maps.

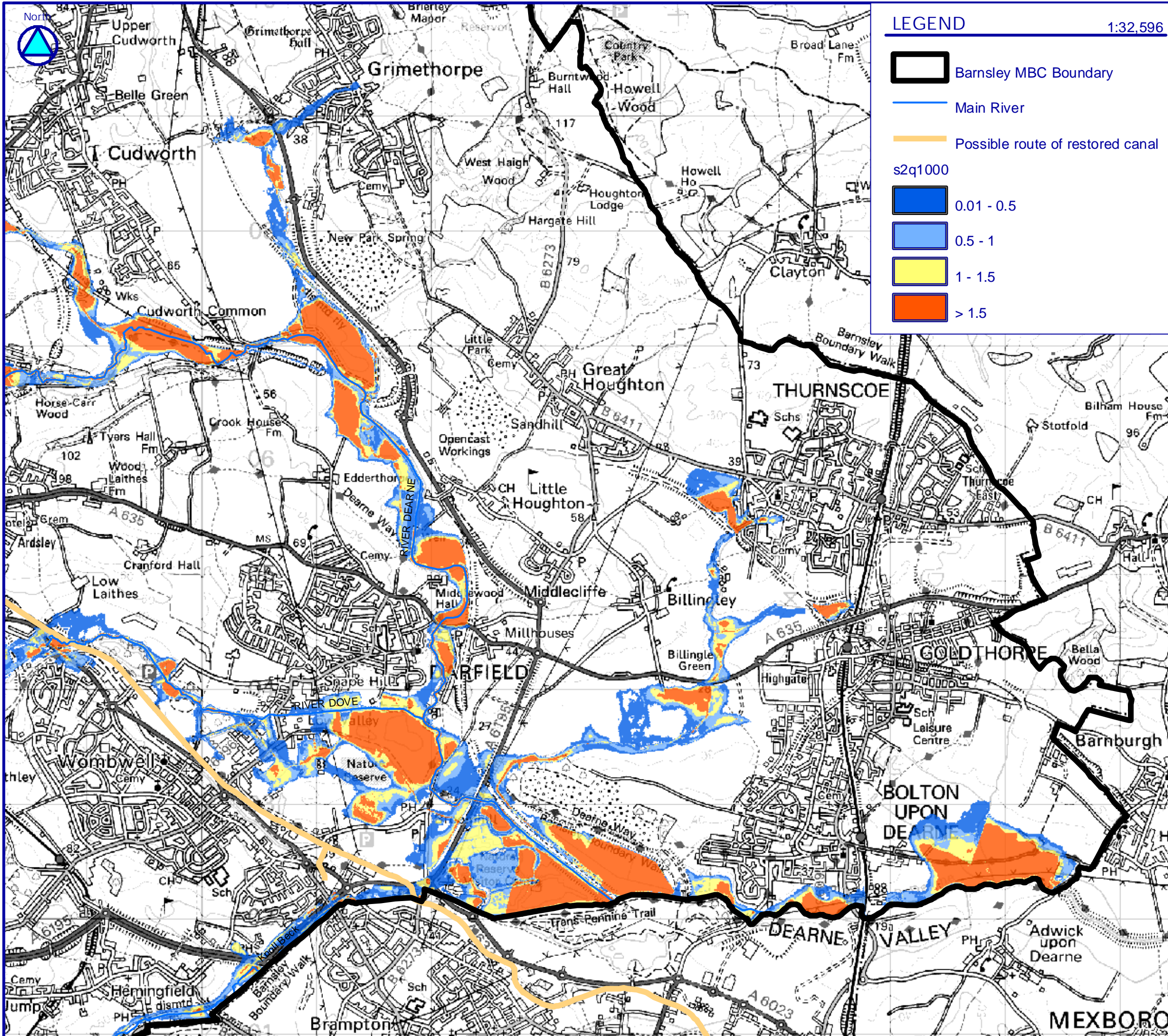
Please see the Section 6 of the SFRA for further details.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100022264 (2009)

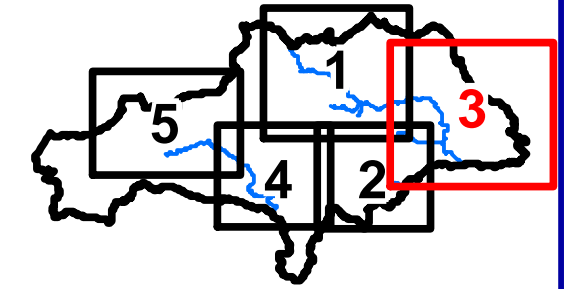


MAP H - 3

s2q100 + Climate Change



**KEYPLAN**



**Note:**  
 This map shows the potential scale of flood inundation for a range of severe overtopping flood events and different standards of flood defence. They do not include the impact of a breach or failure of these defences.

Typical range of defence standards for the River Don and Deane is to protect up to a 1 in 30year (3%) return period.

s2 = 1 in 2year Standard of Defence  
 q1000 = 1 in 1000year or 0.1% probability flood event.

This map should be considered in support of the Environment Agency Flood Zone Maps to aid the Sequential and Exception Tests. It should not be considered in isolation without reference to the other SFRA Flood Risk Maps.

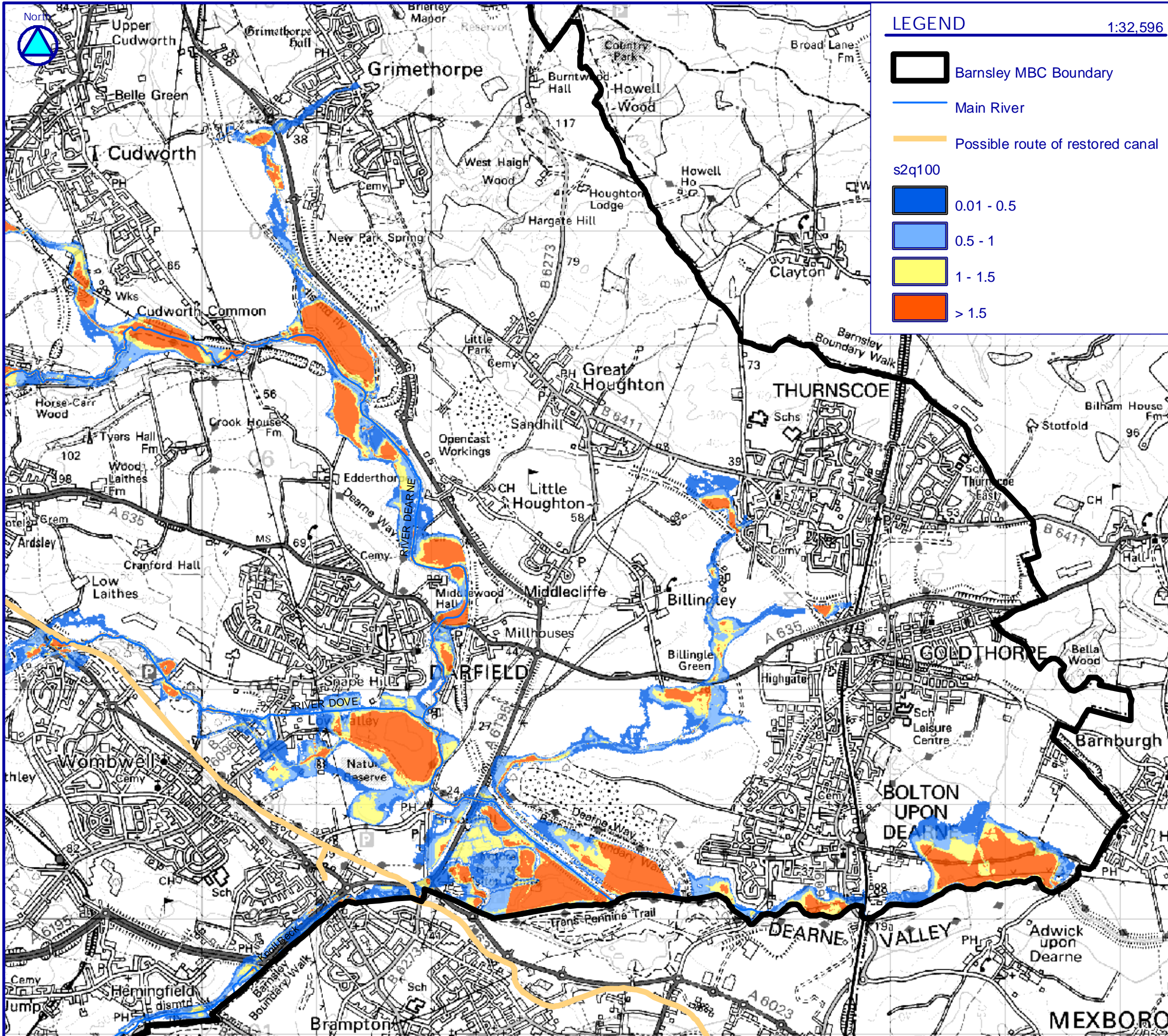
Please see the Section 6 of the SFRA for further details.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100022264 (2008)

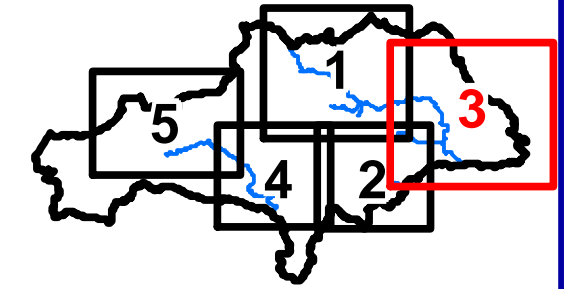


MAP E - 3

s2q1000



**KEYPLAN**



**Note:**  
 This map shows the potential scale of flood inundation for a range of severe overtopping flood events and different standards of flood defence. They do not include the impact of a breach or failure of these defences.

Typical range of defence standards for the River Don and Deane is to protect up to a 1 in 30year (3%) return period.

s2 = 1 in 2year Standard of Defence  
 q100 = 1 in 100year or 1% probability flood event.

This map should be considered in support of the Environment Agency Flood Zone Maps to aid the Sequential and Exception Tests. It should not be considered in isolation without reference to the other SFRA Flood Risk Maps.

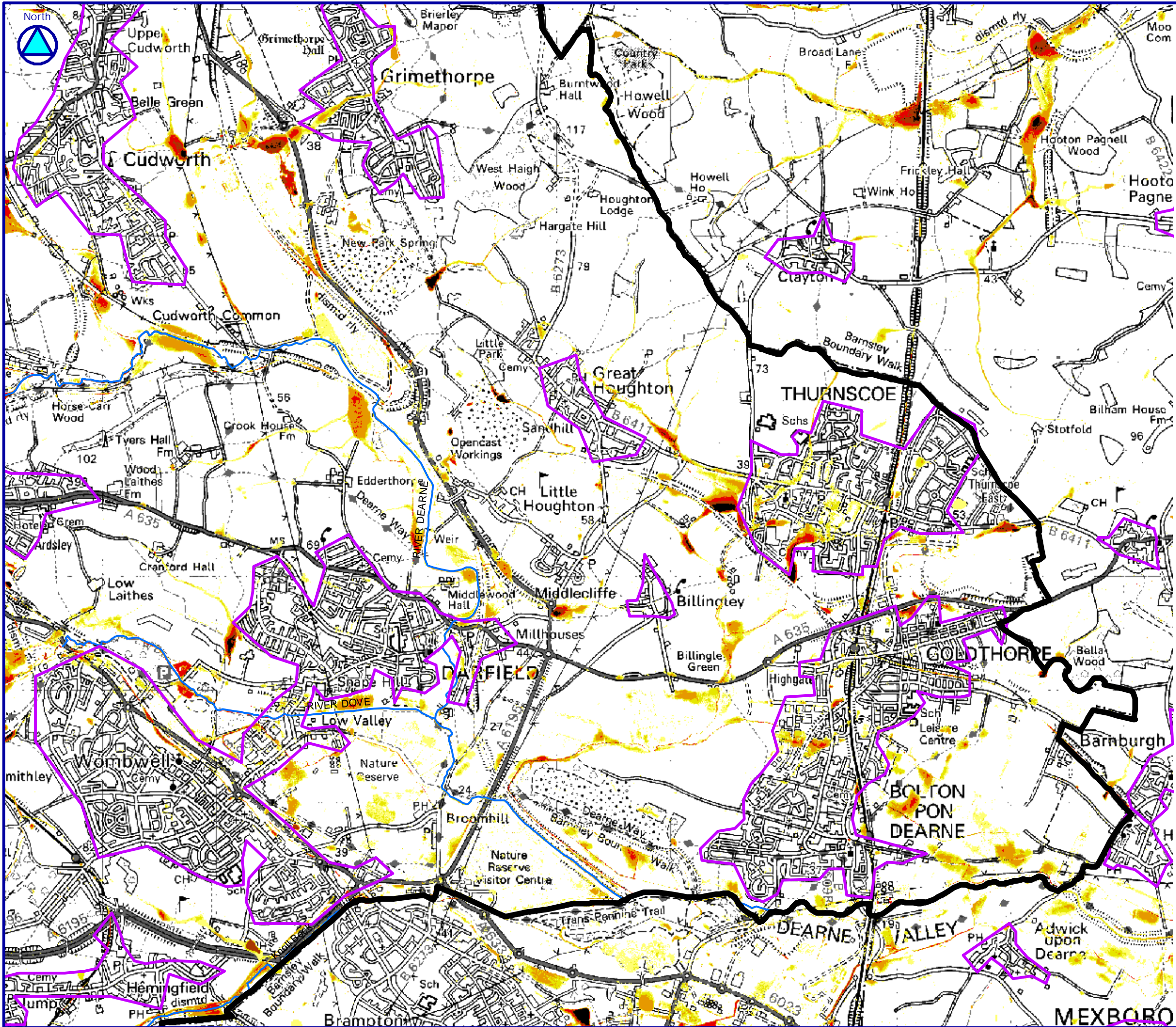
Please see the Section 6 of the SFRA for further details.

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100022264 (2008)

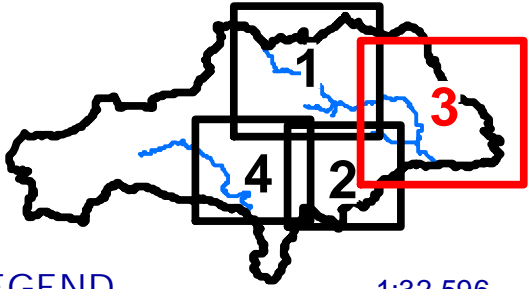


MAP D - 3

s2q100












**KEYPLAN**



**LEGEND**

1:32,596

-  Barnsley MBC Boundary
-  Urban Areas
-  Main River
- Surface Water Flooding**
- Flood Depth (m)**
-  0.15 - 0.3
-  0.3 - 0.5
-  0.5 - 1
-  1 - 1.5
-  1 - 2
-  > 2

Note:  
Please see Section 5.8 of the SFRA  
for further details.

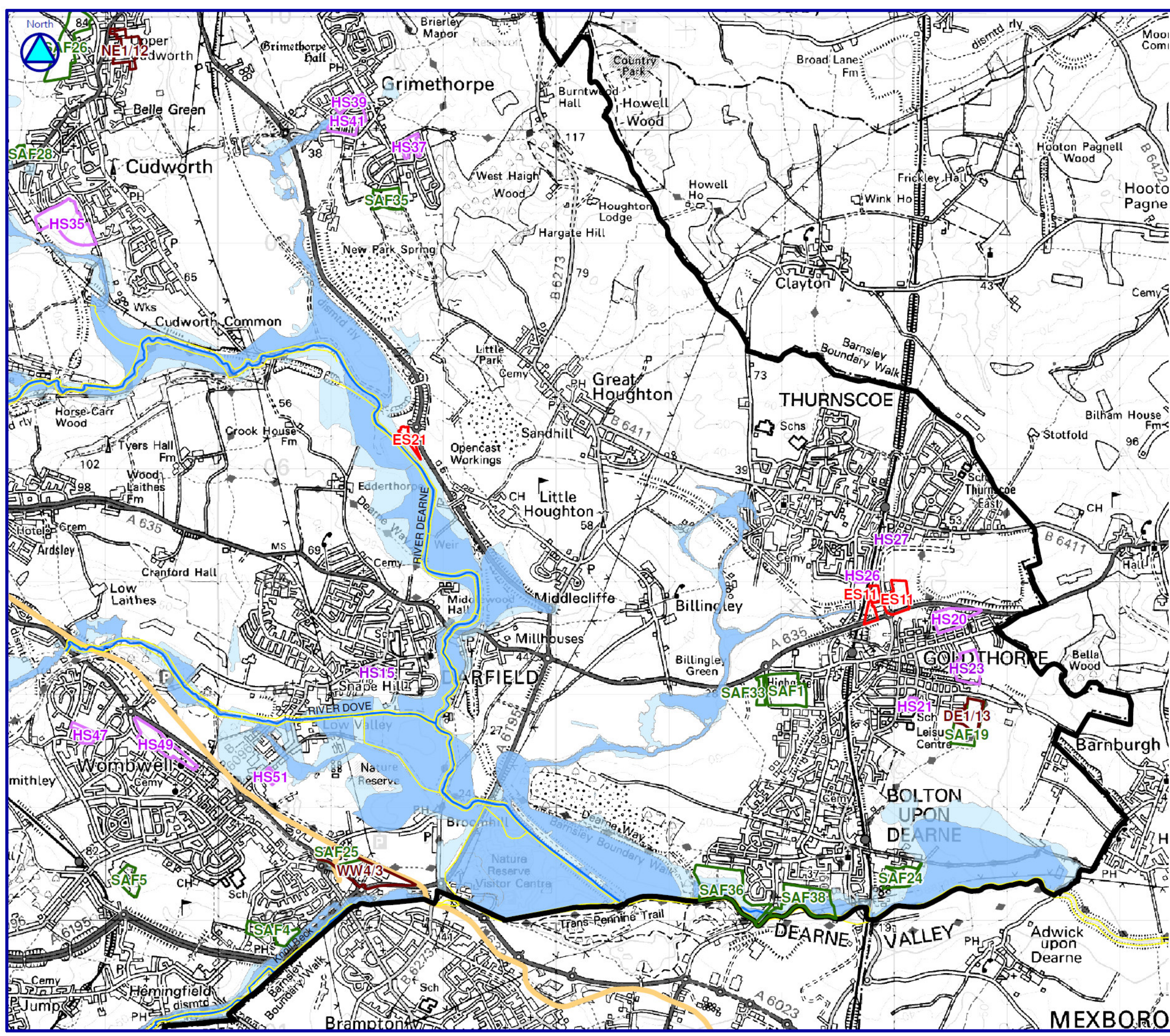
This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100022264 (2008)



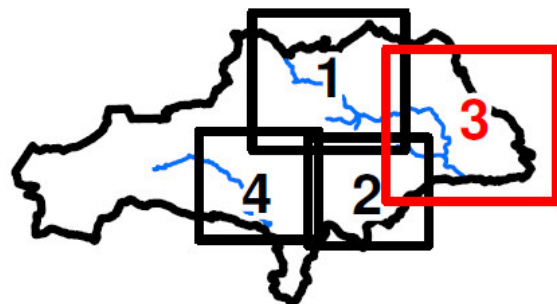
**MAP C - 3**

**PLUVIAL FLOODING CAUSED BY 100YEAR RAINSTORM**







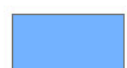
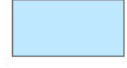


**KEYPLAN**



**LEGEND**

1:32,596

-  Barnsley MBC Boundary
-  Defence
-  Main River
-  Possible route of restored canal
-  Flood Zone 3
-  Flood Zone 2

**Proposed Development Sites**

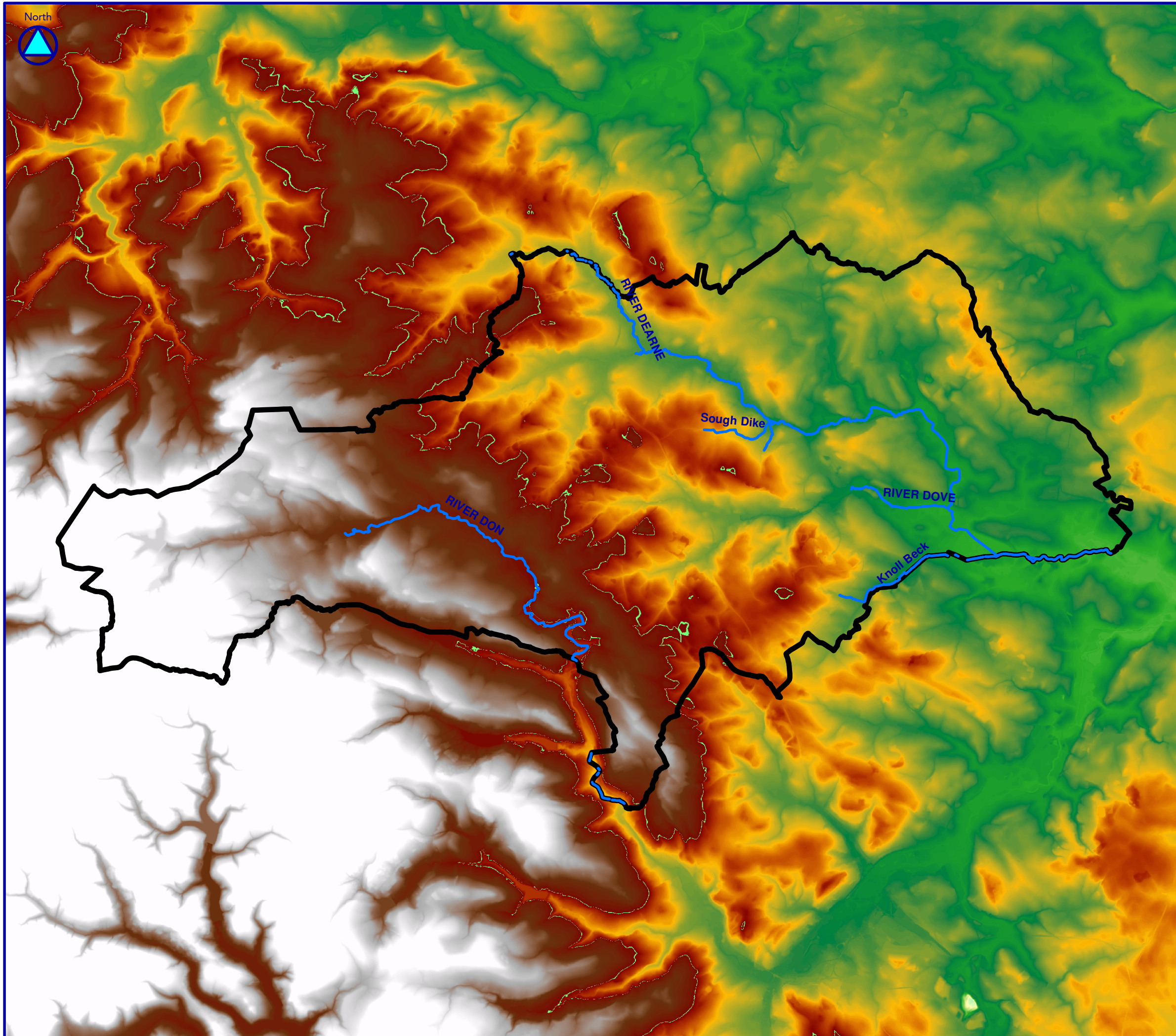
-  Employment Sites
-  Housing Sites
-  UDP Sites
-  Safeguarded Land

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100022264 (2009)







**MAP A - 3**

**PROPOSED DEVELOPMENT SITES AND FLOOD ZONES**



LEGEND

1:126,172

-  Main River
-  Barnsley MBC Boundary
- Topography (NextMap)
- Elevation (m)
  -  High : 1080.1
  -  Low : -92

This map is reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100019782 (2007)



MAP 1

STUDY AREA