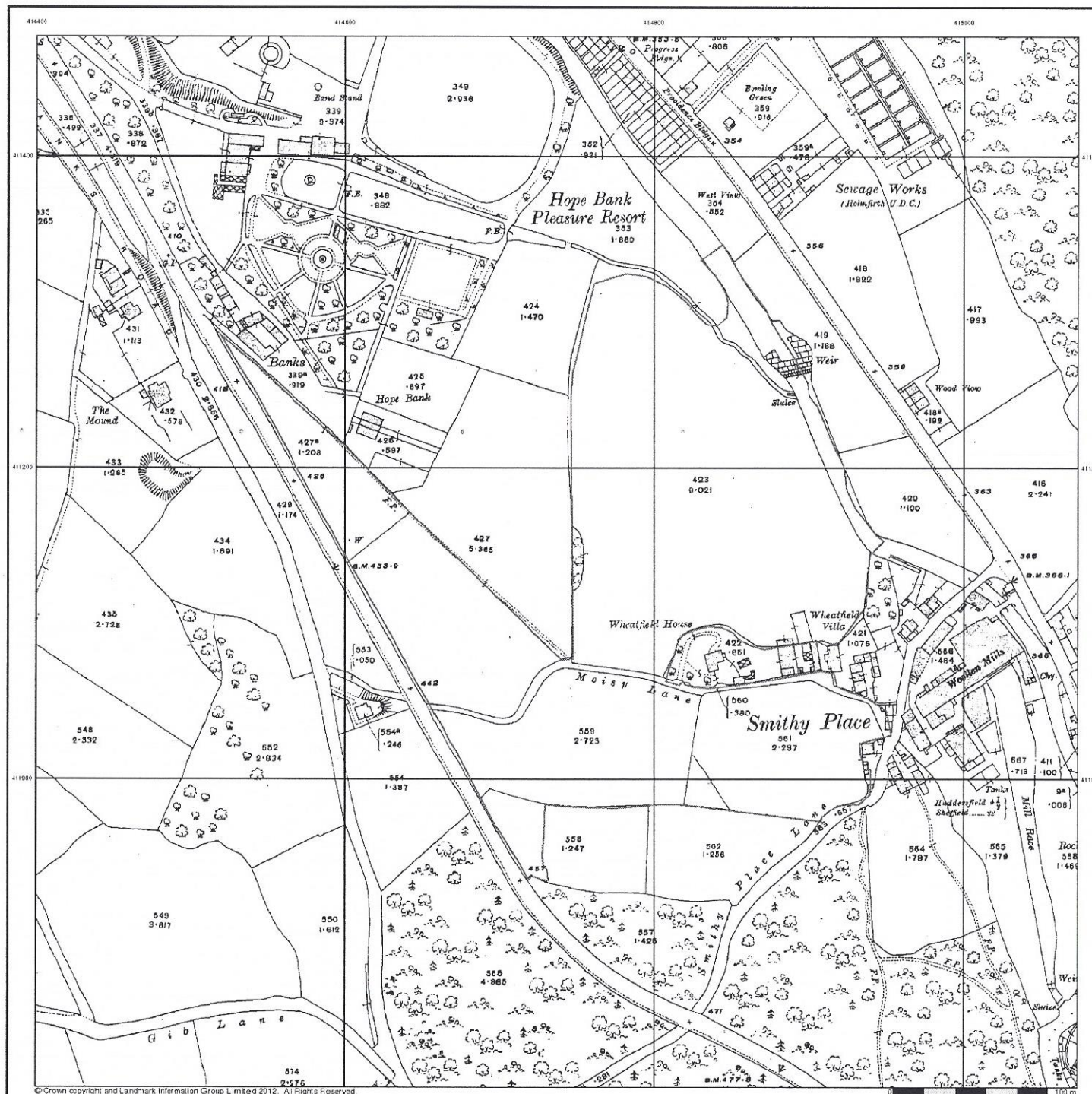


A P P E N D I X C

HISTORICAL MAPS



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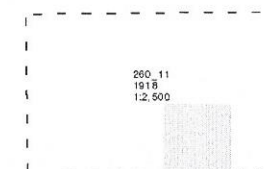
ARP GEOTECHNICAL LIMITED
CHARTERED CONSULTING ENGINEERS

Yorkshire
Published 1918

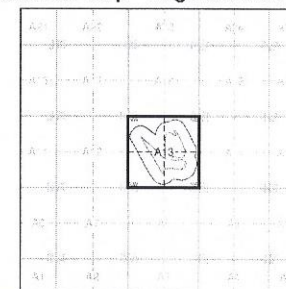
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

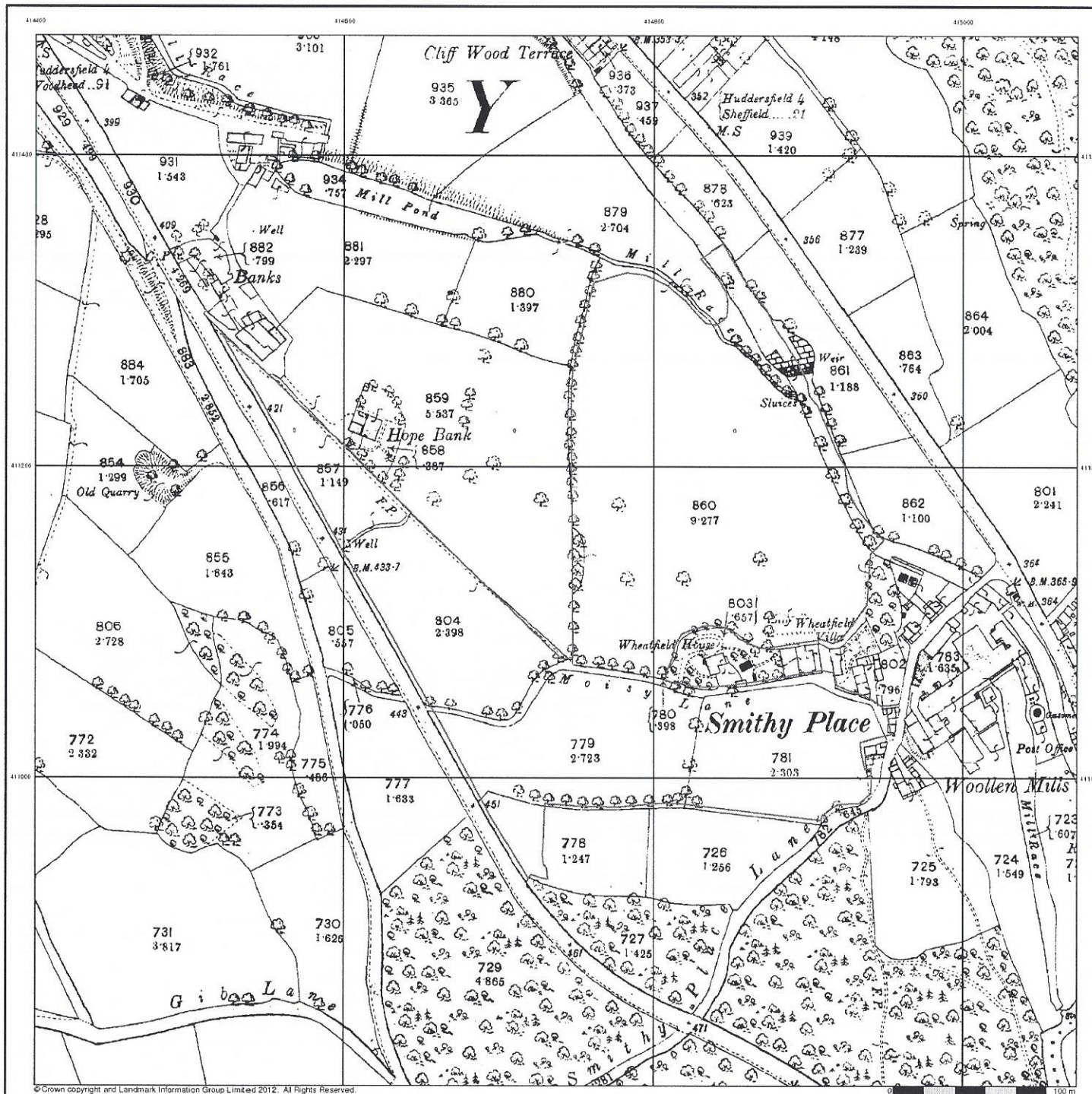
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Customer Ref: MLR/07
National Grid Reference: 414750, 411150
Slice: A
Site Area (Ha): 7.51
Search Buffer (m): 100

Site Details

Land off Woodhead Rd, Brockholes, HOLMFIRTH, HD9 6PR



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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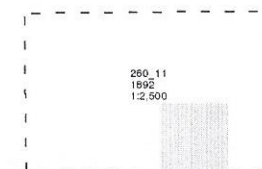
ARP GEOTECHNICAL LIMITED
CHARTERED CONSULTING ENGINEERS

Yorkshire
Published 1892

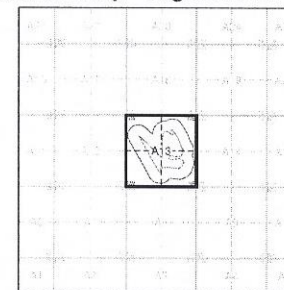
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A P P E N D I X D

ENVIRONMENT AGENCY CONSULTATION

Allan Poyser

From: Beech, Cheryl <Cheryl.Beech@environment-agency.gov.uk>
Sent: Thursday 8 August, 2013 3:13 pm
To: Allan Poyser
Subject: Your Enquiry: RFI/2013/26629
Attachments: Standard_Notice sept 2012.pdf; Flood Map.pdf; Model Results.pdf; Node Location Map.pdf; NPPF TG Climate Change extract.pdf; VAT Receipt.pdf

Our Ref: RFI/2013/26629

Your Ref:

Dear Allan

Provision of Product 4 for Woodhead Road, Brockholes, Holmfirth

Thank you for your request of 25 July 2013 to use Environment Agency data, Product 4, in the development of the above site. 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.

Supporting Information

The Flood Map

Please see the enclosed extract from the Flood Map.

The Flood Map provides information on flooding from rivers and the sea for England and Wales. The Flood Map also has information on flood defences and the areas benefiting from those flood defences.

The Flood Map shows the following:

1. Flood Zone 3 (dark blue area on the enclosed map): natural flood plain area that could be affected by flooding from rivers and/or the sea – not taking into account the presence of any flood defences
 - For flooding from rivers the map indicates the extent of a flood with a 1% (1 in 100) chance of happening each year;
 - For flooding from the sea the map shows the extent of a flood with a 0.5% (1 in 200) chance of happening each year.
2. Flood Zone 2 (light blue area): natural flood plain area that could be affected by flooding from rivers and/or the sea – not taking into account the presence of any flood defences. Flood Zone 2:
 - indicates the extent of a flood with a 0.1% (1 in 1000) chance of happening each year.
 - and/or indicates the greatest recorded historic flood, whichever is greater.
3. Flood defences built in the last five years to protect against river floods with a 1% (1 in 100) chance of happening each year, together with some natural or constructed entities which retain, store or channel water and which may protect against smaller floods.

4. Areas benefiting from flood defences - areas that benefit from the flood defences shown, in the event of a river flood with a 1% (1 in 100) chance of happening each year, or a flood from the sea with a 0.5% (1 in 200) chance of happening each year. If the defences were not there, these areas would flood.

Flood History

To the best of our knowledge there is no known flood history for this site. For local drainage information please contact your water utility company and your local council.

Water causing flooding can come from different places, for example from rivers or the sea; surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system); overflowing or backing up of sewers or drainage systems which have been overwhelmed or from groundwater rising up from underground aquifers.

Currently the Environment Agency can only supply flood risk data relating to the risk of flooding from rivers or the sea. However you should be aware that in recent years, there has been an increase in flood damage caused by surface water flooding or drainage systems that have been overwhelmed. Local Authorities and/or Water Companies may be able to provide some knowledge on the risk of flooding from sources other than rivers and the sea and we are working with these organisations to improve knowledge and understanding of surface water flooding.

Assets

There are no flood defences helping to reduce flood risk in your area of interest.

Modelling - River Colne & Holme - Flood Modelling

The River Colne & Holme Flood Mapping Study, Flood Estimation, Modelling and Floodplain Mapping report was produced by Jeremy Ben Associates in March 2006. It was updated in 2010 to incorporate bank level data surveyed in 2009.

See enclosed:

- Model Nodes Location Map.
- Table showing modelled water levels and flows for the 1% (1 in 100yr), 1.3% (1 in 75yr), 2% (1 in 50yr), 4% (1 in 25yr) and 10% (1 in 10) annual probability events.
- Model Summary Sheets showing the results for the 0.1% annual probability flood, as calculated in 2006. These were not updated in 2010.

Climate Change

See attached extract from the National Planning Policy Framework Technical Guidance by Communities and Local Government.

LIDAR Data

Light Detection and Ranging (LIDAR) is an airborne mapping technique, which uses a laser to measure the distance between the aircraft and the ground. This technique results in the production of an accurate, cost-effective terrain model suitable for assessing flood risk and other environmental applications.

The Environment Agency owns two LIDAR systems, which are installed in a survey aircraft along with its other operational remote sensing instruments.

The aircraft is positioned and navigated using Global Positioning System (GPS) corrected to known ground reference points. The aircraft typically flies at a height of about 800 metres above ground level and a scanning mirror allows a swath width of about 600 metres to be surveyed during a flight.

To get a license for the data you will need to contact our Science Group, stating the area you are interested in (preferably an OS Grid Reference, or a map with the area outlined). There may be a charge for this data.

Low resolution Data is returned as an ASCII grid, which can easily be converted to a surface model for use in most GIS applications, and is provided in 2km x 2km tiles, at a resolution of 2m.

High resolution Data is also returned as an ASCII grid, in 0.5km x 0.5km tiles, at a resolution between 0.125 and 0.5m.

For current catalogue of coverage see: <http://www.geomatics-group.co.uk/GeoCMS/order.aspx>

To obtain the data and license agreement, please contact:

Environment Agency Geomatics
Phoenix House
Lower Bristol Road
Bath BA2 9ES
Tel: 01225 487658
Fax: 01225 487643
E-mail: archived-lidardata@environment-agency.gov.uk
Or visit the website at www.geomatics-group.co.uk

The Rights & Responsibilities of a Riverside Owner

The owner of property adjacent to a watercourse is usually deemed to be the riparian owner and, as such, has both riparian rights and responsibilities with regard to the watercourse within their ownership.

The responsibility for general maintenance and repair of the watercourse and its banks rests with the riparian owner. For more information on Rights and Responsibilities of a riverside owner, you can visit our website at: www.environment-agency.gov.uk and click on 'Flood', 'How can I be prepared?', 'Guidance for riverside property owners' and download the 'Living on the Edge' booklet.

Alternatively type the following address into your web browser:
<http://www.environment-agency.gov.uk/homeandleisure/floods/31626.aspx>

Ordnance Survey Data

Under the terms of our licence agreement with the Ordnance Survey, we are unable to supply the OS data. Under this agreement we can only supply OS data to consultants/contractors carrying out work on our behalf.

Hydrological Data

Level data is available for this watercourse. Level Recording Site:

Please find enclosed the AMAX (Annual Maximum) series..

Flood Portal

It's a new 'one-stop shop' web portal providing guidance and information on flood risk management in the UK. Arup have written and designed the site, in conjunction with CIRIA, the Local Government Association, the EA and Defra, primarily as a resource for local authority officers, flood risk management professionals, and others with an interest in flood risk. It's a part of the Capacity Building Strategy.

<http://www.local.gov.uk/floodportal>

Please contact Gemma Snell who is the FCRM Officer for this area on 0113 819 6045 if you need further advice.

This information is provided subject to the attached notice which we advise that you should read.

We would be really grateful if you could spare five minutes to help us improve our service. Please click on the link below and fill in our survey – we use every piece of feedback we receive:

<http://www.surveymonkey.com/link/a3d10>

If you require any further help, please do not hesitate to contact me.

Yours sincerely

Cheryl Beech
Customers and Engagement Team
Direct Dial 0113 8196360
Email neyorkshire@environment-agency.gov.uk

Please note: I only work part time - my usual working days are Tuesday, Wednesday & Thursday

 **Have your say on the choices shaping the water environment. The [Challenges and Choices consultation](#) launches 22 June 2013.**

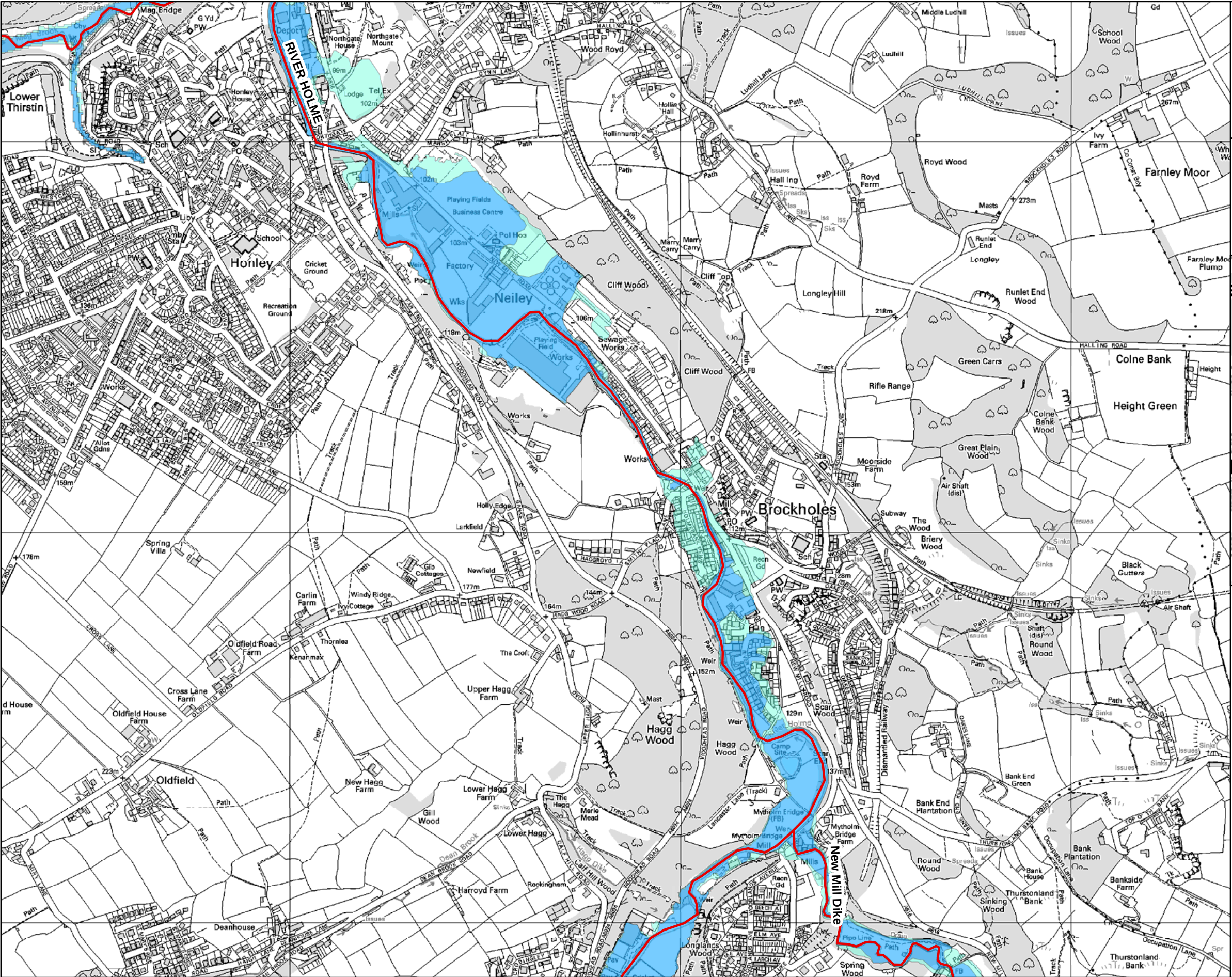
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Flood Map Centered on New Mill Road, Holmfirth - Date Created:

08/08/2013



www.environment-agency.gov.uk

Scale: 1:10,000

when reproduced @ A3



LEGEND

- Main River
- Flood Zone 2 (FZ2)
- Flood Zone 3 (FZ3)

Flood Map Centered on New Mill Road, Holmfirth - Date Created:

08/08/2013

