

FLOOD RISK ASSESSMENT

**WATH ROAD
ELSECAR
BARNSELY**

for

Oaktree Developments Limited

Report Number 4092

January 2021



Michael D Joyce Associates LLP

Geotechnical and Geoenvironmental Consultants

Charnock Court 6 South Parade Wakefield West Yorkshire WF1 1LR UK
T +44(0)1924 360458 **E** mdja@geoenvironmental.co.uk **W** www.geoenvironmental.co.uk

Flood Risk Assessment

WATH ROAD, ELSECAR, BARNSELY

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1 INTRODUCTION

- 1.1 At the request of Oaktree Developments Limited, a Flood Risk Assessment has been carried out on land at Wath Road in Elsecar.
- 1.2 The Flood Risk Assessment has been prepared in accordance with The National Planning Policy Framework (NPPF), which is the official document that regulates the assessment of flood risks and their appropriate mitigation measures in the planning process. To accompany the NPPF there is the “Technical Guidance to the National Planning Framework” document of March 2012. This replaces PPS25: Development and Flood Risk.
- 1.3 The National Planning Policy Framework sets strict tests to protect people and property from flooding which all local planning authorities are expected to follow. Where these tests are not met, national policy is clear that new development should not be allowed. The main steps to be followed are set out below which, in summary, are designed to ensure that if there are better sites in terms of flood risk, or a proposed development cannot be made safe, it should not be permitted.
- 1.4 In areas at risk of flooding (including change of use) or for sites of 1 hectare or more, developers undertake a site-specific flood risk assessment to accompany applications for planning permission.
- 1.5 A site-specific flood risk assessment is carried out by (or on behalf of) a developer to assess the flood risk to and from a development site. Where necessary in the National Planning Policy Framework, the assessment should accompany a planning

application submitted to the local planning authority. The assessment should demonstrate to the decision-maker how flood risk will be managed now and over the development's lifetime, taking climate change into account, and with regard to the vulnerability of its users.

- 1.6 The information provided in the flood risk assessment should be credible and fit for purpose. Site-specific flood risk assessments should always be proportionate to the degree of flood risk and make optimum use of information already available, including information in a Strategic Flood Risk Assessment for the area, and the interactive flood risk maps available on the Environment Agency's web site.

2 THE SITE

- 2.1 The site covers an area of approximately 0.13 hectares. It is located on Wath Road in Elsecar, approximately 7km southeast of the centre of Barnsley. The Ordnance National Survey Grid Reference is 438780, 400270, and it lies at approximately 58 mAOD. Figure 1 shows the general site location, whilst figure 2 shows the site in more detail.
- 2.2 The site was inspected on 4th November 2020. It comprises a flat lying piece of land, with Wath Road forming the northwestern boundary of the site. There are industrial buildings to the northeast and southwest of the site.
- 2.3 The southeastern boundary is formed by a steep slope down to the Dearne and Dove Canal. The slope is wooded and shows signs of previous slope instability. The canal lies approximately 6m below site level.
- 2.4 The site itself is almost entirely formed with concrete hardstanding with the exception of a small grassed area in the northeastern corner of the site. Here, there is a small brick building with a waste oil tank to the rear. There is also a portacabin, old tyres and two plastic drums.



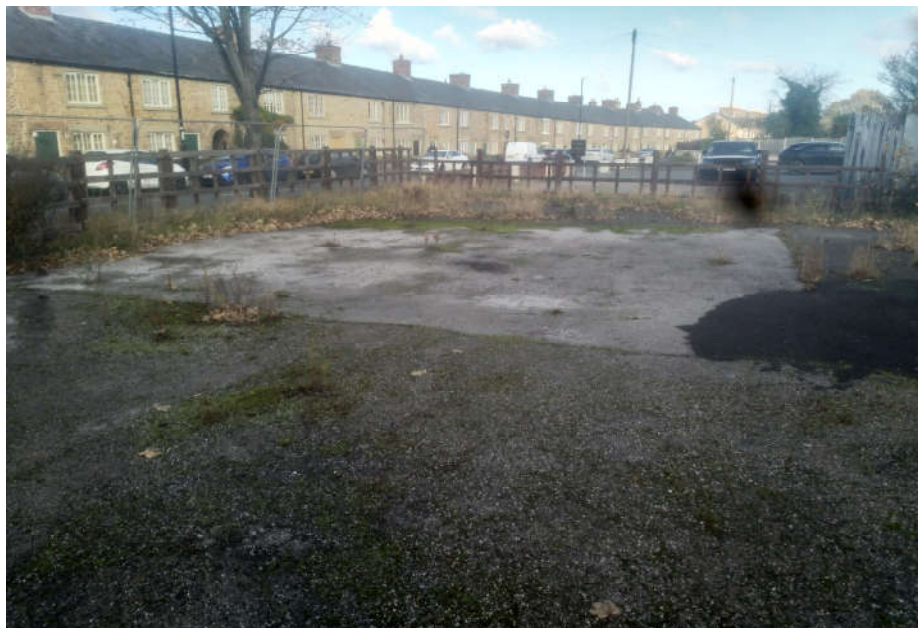
View looking to northeast from southern part of site



Southern part of site looking to southwest



Slope down to canal



Northern part of site looking to northeast



Brick building and portacabin

3 SITE HISTORY

- 3.1 The following archival Ordnance Survey maps have been examined to trace the past development of the site. These are reproduced in Appendix 2 of Michael D Joyce Associates LLP, Report No. 4064, dated November 2020, with the current site boundary superimposed on them. The apparent displacement on the older maps is due to a change in Ordnance Survey co-ordinates.

Scale and Year of Publication			
6" to 1 mile	1850	1:2500	1890
	1890		1903
	1901		1930
	1931		1955
	1938		1957
	1948		
	1951		
	1967		
1:10,000	1977	1:1250	1956
	1983		1975
	1987		1993
	1991		1994
	2001		2003
	2010		
	2020		

- 3.2 The earliest map to show the site in detail dates from 1890. It shows the site to be vacant, with the exception of a small building, more or less at the position of the present building. At the northeastern corner of the site, a footbridge is shown across

the canal, with Simon Wood Colliery on the opposite side of the canal. To the south of the site is Elsecar (corn) mill.

3.3 By 1930, the present brick building is shown together with another building, which encroaches into the northeastern corner of the site. The footbridge had been removed and the main colliery buildings relocated further to the east. Elsecar Mill was also recorded as being disused.

3.4 By 1975, a garage had been constructed just to the north of the site. It appears to have included a forecourt area and presumably had underground fuel tanks. The site itself remained undeveloped.

3.5 Due to time and cost constraints, it has not been possible to consult with local history journals and newspapers. This can be carried out if requested at additional cost, but is unlikely to provide any significant additional information.

3.6 The site is unlikely to be of archaeological interest. However, it may be prudent to make enquiries with South Yorkshire Archaeology Service.

4 SITE SPECIFIC FLOOD RISK ASSESSMENT AND CONCLUSIONS

- 4.1 The assessment is based on the Environment Agency's maps of flood risk zones. These cover all of England and Wales and map areas prone to flooding in terms of the following:

Zone 1 - Low Probability (Little or No Risk)

This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any year. There are no development constraints.

Zone 2 - Medium Probability (Low to Medium Risk)

This zone comprises land assessed as having between a 1 in 100 (1%) and 1 in 1000 (0.1%) annual probability of river flooding or between a 1 in 200 and 1 in 1000 annual probability of sea flooding in any year.

Zone 3a - High Probability (High Risk)

This zone and the site itself comprises land assessed as having a 1 in 100 or greater annual probability of river flooding or a 1 in 200 or greater annual probability of flooding from sea in any year.

Zone 3b - Functional Floodplain

This zone comprises land where water has to flow or be stored in times of flood. The annual probability that such land will flood will be 1 in 20 or greater.

Flood Vulnerability Zone	Essential Infrastructure	Water Compatible Development	Highly Vulnerable	More Vulnerable	Less Vulnerable
1	Appropriate	Appropriate	Appropriate	Appropriate	Appropriate
2	Appropriate	Appropriate	Exception test required	Appropriate	Appropriate
3a	Exception test required	Appropriate	Inappropriate	Exception Test required	Appropriate
3b	Exception test required	Appropriate	Inappropriate	Inappropriate	Inappropriate

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 A 'Flood Map for Planning' has been downloaded from the Environment Agency website. It shows that the land directly adjacent to the canallies in Flood Zone 3 and is at risk of flooding. However the higher ground comprising the site area is not at risk of flooding.
- 5.2 Enquiries have been made directly with the Environment Agency and its full response is given in Appendix 1.
- 5.3 The Environment Agency's initial response was to identify;
- 3rd Party Maintained Defences
 - Environment Agency Canals
 - Environment Agency Maintained Structures
 - 3rd Party Maintained Structures
 - Asset Map
 - Flood History Map
- 5.4 Of most relevance is the Flood History Map which correlates with the Flood Map for Planning. It shows the lower ground adjacent to the canal to have flooded in June 2007, but the higher ground comprising the site to be unaffected.
- 5.5 Unfortunately, the Environment Agency was unable to provide any past or future flood levels, stating "*we don't hold any water levels at this location*".
- 5.6 Nevertheless, the canal level is at approximately 51 mAOD, and the site level at approximately 56 mAOD, according to LIDAR data. As such, the water level in the

canal would need to rise by approximately 5m before any flooding could potentially occurred. Even allowing for climate change, it is impossible to envisage such a rise. The canal lies in a wide open valley, with lower ground to the east of the site. As such there is no opportunity for the valley drainage to be obstructed. In conclusion, the site is not considered to be at risk of flooding from the canal.

- 5.7 Surface water flooding could not occur since any surface water would ultimately run-off down the embankment and towards the canal, or be taken up by the existing drainage system. As such the development will not increase surface water run-off.

A D Joyce

BSc MSc ARSM CEng CGeol CEnv MICE FGS SiLC SQP

January 2021

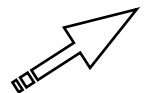
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Wath Road, Elsecar
Site Plan and Development Proposals

Michael D Joyce Associates LLP
Geotechnical and Geoenvironmental Consultants

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Scale: NTS

Figure: 1

Appendix 1

Environment Agency Flood Map for Planning and Correspondence

Anthony Joyce

From: Harris, Amanda <Amanda.Harris@environment-agency.gov.uk>
Sent: 07 January 2021 09:35
To: mdja@geoenvironmental.co.uk
Subject: Your Enquiry: RFI/2020/192261
Attachments: Planning advice for developers.pdf; 3rd Party Maintained Defences Details 192261.pdf; 3rd Party Maintained Structures Details 192261.pdf; Assets Map 192261.pdf; EA Maintained Channels Details 192261.pdf; EA Maintained Structures Details 192261.pdf; Flood History Map 192261.pdf; Supporting Information 192261.pdf

Our Ref: RFI/2020/192261

Your Ref:

Dear Anthony

**RE: Provision of Product 4 for Proposed Residential Development - Wath Road, Elsecar(438780,400270)
Request for information under the Freedom of Information Act 2000 (FOIA) / Environmental Information Regulations 2004 (EIR)**

Thank you for your enquiry which was received on 5 November 2020. . Please accept our apologies for the delay in providing a response to you.

Under normal circumstances, we aim to reply to your request for information within 20 days as outlined by the regulations. However, due to the ongoing coronavirus restrictions, we are currently experiencing capacity issues within our teams and unfortunately, we have been unable to provide a response to you within 20 days of your original request.

The requested data is attached. Please also find attached a 'Supporting Information' document which should be read in conjunction with this data.

This information is provided subject to the Open Government Licence ([here](#)). Please read for details of permitted use.

Planning Advice

If you are using our data to inform a development proposal, we encourage you to contact our Sustainable Places team for pre-planning application advice. Their advice can help you solve key environmental issues early, reduce the chance of an objection, and help you design a more sustainable development for proposed planning applications. If you would like to take advantage of this service, our advisers will be able to provide further information and estimated costs for any detailed advice. Please contact our Sustainable Places Team by e-mail at sp-yorkshire@environment-agency.gov.uk for further information.

For general enquiries relating to your development or our role within the planning system, please refer to the attached 'Planning advice for developers' document.

I hope that we have correctly interpreted your request. We respond to requests for recorded information that we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

If you are not satisfied with our response to your request for information you can contact us within 2 calendar months to ask for our decision to be reviewed.

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

Yours sincerely

Amanda Harris

Customers and Engagement Team

Environment Agency | Lateral, 8 City Walk, Leeds, LS11 9AT

Amanda.Harris@environment-agency.gov.uk

External: 0208 4747926 | Internal :47926

Mobile : 07917052670

Enquiries Team Tel: 020 847 48174 | **Email:** neyorkshire@environment-agency.gov.uk

Working days: Monday to Friday

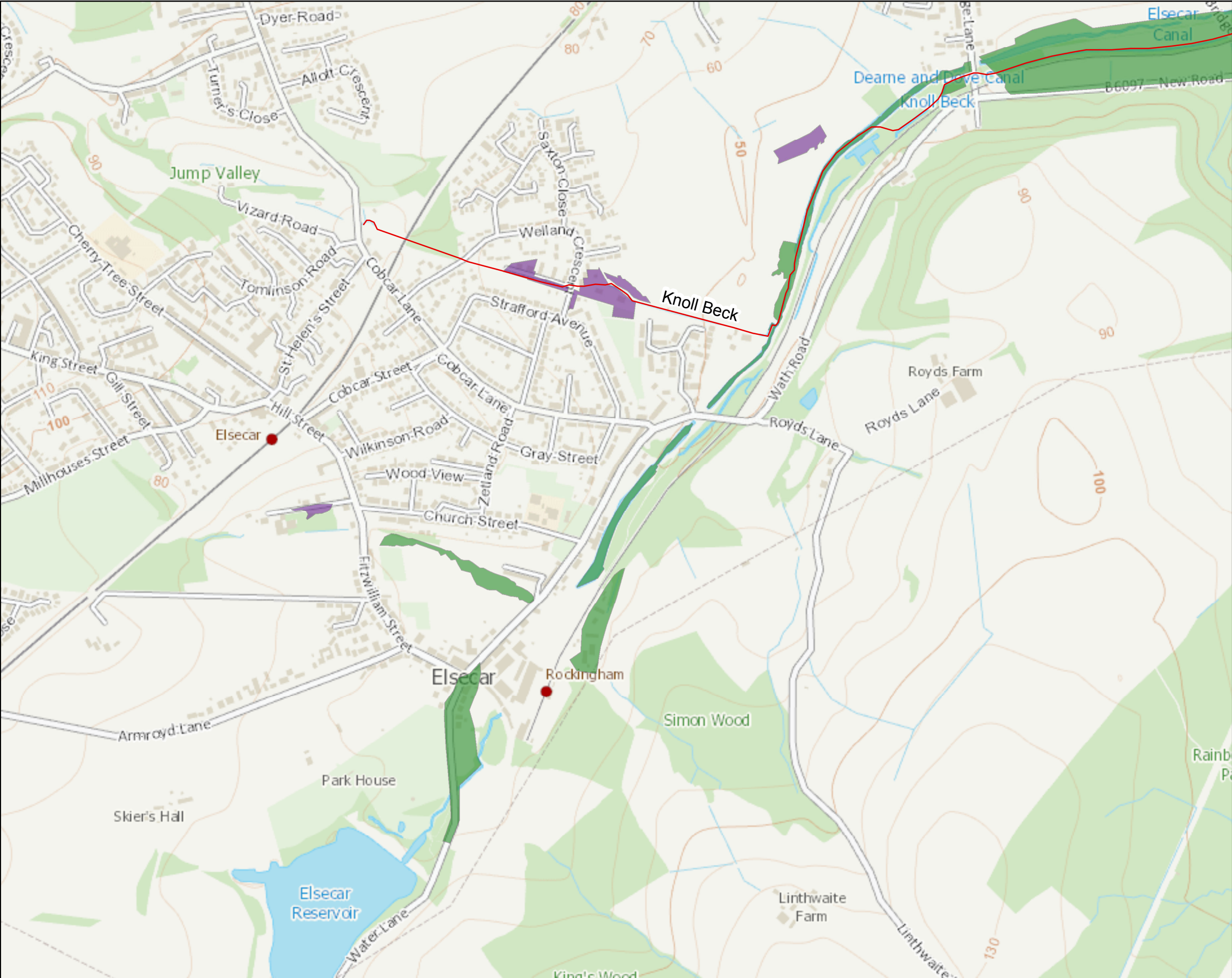


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RFI/2021/192261 Flood History Map, Centred on Wath Road, Elsecar

Date created: 06/01/2021



www.environment-agency.gov.uk

Scale: 1:8,000



when reproduced @ A3



LEGEND

— Main River

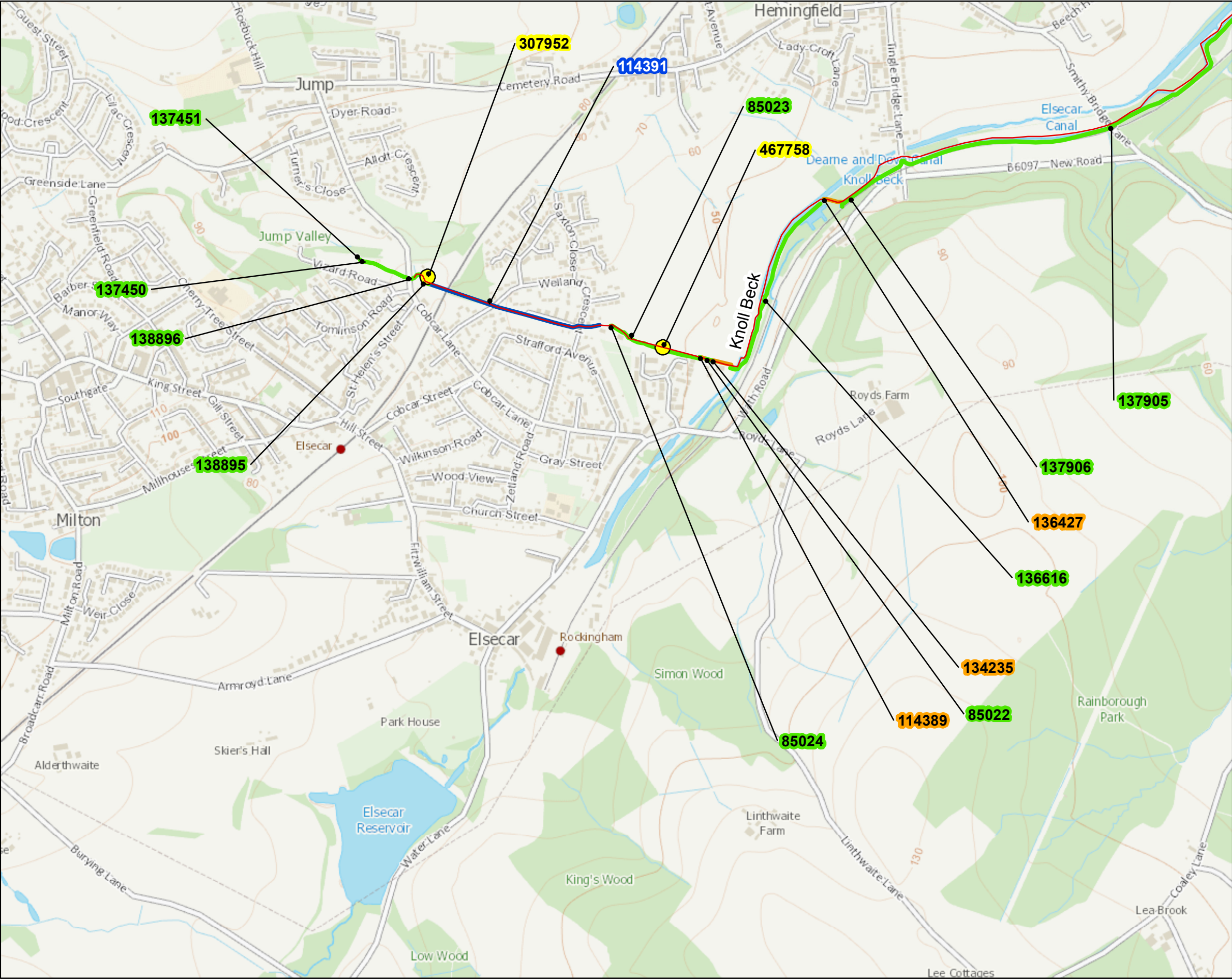
RECORDED FLOOD OUTLINES

■ June 2007 Flood Event (Ridings Area)

■ June 2007 Surface Water Flooding Yorkshire

RFI/2020/192261 Assets Map, Centred on Wath Road, Elsecar

Date created: 31/12/2020



www.environment-agency.gov.uk

Scale: 1:10,000



when reproduced @ A3



LEGEND

- Main River
- Structures (EA maintained)
- Defences (3rd party maintained)**
- SUB_TYPE**
- high_ground
- Channels (EA maintained)**
- SUB_TYPE**
- simple_culvert
- Channels (3rd party maintained)**
- SUB_TYPE**
- simple_culvert

Defences (3rd Party Maintained) - RFI/2020/192261										
ASSET ID	DESCRIPTION	ASSET MAINTAINER	ASSETS TYPE	LENGTH (m)	ACTUAL Downstream Crest Level (mAOD)	ACTUAL Upstream Crest Level (mAOD)	PROTECTION	TARGET CONDITION	OVERALL CONDITION	DESIGN STANDARD OF PROTECTION (SOP)
137451	high_ground	private	flood_risk_management	16.35			fluvial	3	3	30
137450	high_ground	private	flood_risk_management	118.21			fluvial	3	3	30
138896	high_ground	private	flood_risk_management	51.47			fluvial	3	3	30
138895	high_ground	private	flood_risk_management	8.19			fluvial	3	2	30
85024	high_ground	private	flood_risk_management	64.52			fluvial	3	3	30
85023	high_ground	private	flood_risk_management	187.61			fluvial	3	3	30
85022	high_ground	private	flood_risk_management	15.43			fluvial	4	3	30
136616	high_ground	private	flood_risk_management	507.46			fluvial	3	3	30
137906	high_ground	private	flood_risk_management	199.70			fluvial	3	3	30
137905	high_ground	private	flood_risk_management	1222.33			fluvial	3	3	30

Channels (3rd Party Maintained) - RFI/2020/192261										
ASSET ID	DESCRIPTION	ASSET MAINTAINER	ASSET TYPE	LENGTH (m)	LAST INSPECTION	LOCAL AUTHORITY	PROTECTION	TARGET CONDITION	OVERALL CONDITION	DESIGN STANDARD OF PROTECTION (SOP)
136427		private	simple_culvert	47.18	29/01/2020	Barnsley District (B)	fluvial	3	3	30
134235		private	simple_culvert	50.59	29/01/2020	Barnsley District (B)	fluvial	3	5	30
114389		private	simple_culvert	16.98	29/01/2020	Barnsley District (B)	fluvial	3	3	30

Channels (EA Maintained) - RFI/2020/192261										
ASSET ID	DESCRIPTION	ASSET MAINTAINER	ASSET TYPE	LENGTH (m)	LAST INSPECTION	LOCAL AUTHORITY	PROTECTION	TARGET CONDITION	OVERALL CONDITION	DESIGN STANDARD OF PROTECTION (SOP)
114391		environment_agency	simple_culvert	454.37	29/01/2020	Barnsley District (B)	fluvial	3	3	30

Structures (EA Maintained) - RFI/2020/192261							
ASSET ID	ASSETS TYPE	DESCRIPTION	DESIGN STANDARD OF PROTECTION (SOP)	ASSET MAINTAINER	PROTECTION	TARGET CONDITION	OVERALL CONDITION
467758	screen			environment_agency	fluvial	3	2
307952	screen			environment_agency	fluvial	3	2



Environment
Agency

Planning advice for developers – FAQs

INTRODUCTION

Local planning authorities (LPAs) across Yorkshire are required to consult us on [certain planning applications](#) which affect flood risk, groundwater, waste, or water quality.

If your development falls into one of these categories, we'll be invited to comment on your planning application. Your LPA, when considering your application, will take our comments into account.

We've produced this guidance to summarise the environmental issues we're responsible for. The guidance forms part of our free advice service; if you require site-specific or face-to-face advice, we'll need to recover our costs through our [charged advice service](#). Engaging with us early can help you identify the big issues, reduce the chances of subsequent delays and help you design a more sustainable and attractive development.

DEVELOPMENT AND FLOOD RISK

Is my development proposal at risk of flooding?

The [flood map for planning](#) shows where flooding from rivers and the sea may occur. Whilst this map isn't suitable for a detailed flood risk assessment, it'll show which [flood zone](#) your development is located within and therefore will indicate whether further assessment is needed. You should also refer to your LPA's [strategic flood risk assessment](#) which will provide additional local information on flood risk, including the location of functional floodplain and areas which are susceptible to other sources of flooding such as from surface water or reservoirs.

Will my application need to pass the sequential and exception tests?

Local planning authorities apply the [sequential test](#) to steer development towards areas at the lowest risk of flooding. If your proposal is located within flood zones 2 or 3, you should contact your LPA to discuss the sequential test **before** submitting your application. The LPA may require you to submit information with your application in support of the sequential test.

If the LPA confirm that the sequential test has ruled out steering the development to lower risk sites, the development may also need to pass the [exception test](#) by demonstrating that its sustainability benefits outweigh flood risk and that it can be made safe for its lifetime, through the production of a site-specific flood risk assessment. [Planning practice guidance](#) advises when an exception test will be required, which will depend on the [vulnerability of the development](#) and the flood zone it lies within.

Do I need to submit a flood risk assessment with my planning application?

You'll need to submit a flood risk assessment if your application lies within flood zones 2 or 3 or is over 1 hectare within flood zone 1. You'll also need to submit an assessment if your proposal could be affected by sources of flooding other than from rivers or the sea. For certain lower risk applications, we've provided '[flood risk standing advice](#)' which enables local planning authorities to assess flood risk assessments without the need to consult us.

What information should I include in my flood risk assessment?

We recommend that you refer to the checklist for a [site-specific flood risk assessment](#) for detailed advice on what to include in your flood risk assessment. Alongside referring to your LPA's strategic flood risk assessment, you should contact your LPA to find out whether there are any development guidelines which are specific to your locality.

Can I undertake my own flood risk assessment?

Your FRA must be appropriate to the scale, nature and location of the development whilst being credible and fit-for-purpose. Whilst it's possible to undertake your own assessment, most applicants employ suitably experienced professionals. We're not able to recommend specific consultants, but a simple web search should help you source a competent individual or company.

Do I need to consider how climate change will affect my proposal's flood risk?

Yes, you should demonstrate how flood risk will be managed now and over the development's lifetime, taking climate change into account. Please refer to the following [guidance](#) when undertaking your flood risk assessment. In some cases we'll hold the climate change flood data you need. In others you'll need to undertake your own analysis to understand the impacts.

Where can I get modelled or historic flood levels from?

Email our Customers and Engagement team (neyorkshire@environment-agency.gov.uk) to find out whether we have any modelled or historic flood levels available for your development site. A list of the packages of information we're able to provide can be found under the 'get information to complete an assessment' section of the [planning practice guidance](#). They'll aim to provide this information within 20 days. We no longer charge for providing this information.

The risk portrayed by your flood map doesn't seem to reflect the site's actual risk. How do I 'challenge' your flood map?

If you have evidence suggesting that our flood map is inaccurate, please contact our Customers and Engagement team (neyorkshire@environment-agency.gov.uk) who will provide you with any existing data we hold. To formally contest our flood zones, you'll need to submit supporting evidence, such as digital copies of a topographic survey or modelling for quality assurance purposes. Digital files of the proposed new flood zones in ArcMap or MapInfo format should also be supplied. Any new outline data you submit must conform to our flood zones policy, copies of which are available on request.

Whilst we'll usually be happy to review any topographical survey or model prior to the application being submitted, we would have to recover our costs for this work. In some cases where work to review and update our existing models is already underway, we may decline to consider a challenge.

As we have to be certain that the data which informs our flood map is fit-for-purpose, any revisions will need to meet stringent quality checks.

SURFACE WATER AND DRAINAGE

Who's responsible for managing surface water?

[Lead local flood authorities](#) are responsible for providing advice on the management of surface water resulting from new [major](#) development. [Internal drainage boards](#), where established, have permissive powers to manage water levels within their drainage districts, so also play a key role in managing surface water.

Will I need to provide surface water storage and limit the discharge rate?

You should contact your lead local flood authority to discuss surface water discharge rates and storage requirements. Typically, they'll ask that your development does not increase run-off and limits the discharge to the existing greenfield run-off rate (usually 1.4l/s/ha if not calculated).

Do I need to install sustainable drainage systems?

[Sustainable Drainage Systems \(SuDS\)](#) should always be carefully considered in discussion with your lead local flood authority. A SuDS scheme can reduce flood risk, improve water quality, create better habitats for wildlife, and produce pleasant, more amenable places for people.

Infiltration drainage must not, however, pose a risk to groundwater quality. All infiltration SuDS must:

- Meet the groundwater protection criteria set out on [GOV.UK](https://www.gov.uk)
- Not be constructed in ground affected by contamination

Who should I contact about connecting my development to the mains sewer?

Talk to your water company about connecting to their sewerage system. Here are some contact details for water companies operating in the Yorkshire Environment Agency area:

Yorkshire Water	planningconsultation@yorkshirewater.co.uk
Northumbrian Water	developmentenquiries@nwl.co.uk
Severn Trent Water	new.connections@severntrent.co.uk

My development is a long way from the mains sewer. Can I install a 'non-mains' drainage system, such as a package treatment plant?

New development should connect to the public mains sewer wherever possible. Individual treatment plants can deteriorate local water quality and are more challenging to monitor and regulate. If you can't connect to the mains sewer, your planning submission should outline how you will deal with foul drainage discharge. You should include evidence as to why it is not possible to connect to the mains system, including details of any prohibitive costs. Please

note that some 'non-mains' foul water drainage systems will require an environmental permit, irrespective of any planning approval.

OTHER ENVIRONMENTAL CONSIDERATIONS

What other environmental issues will you consider with my planning application?

Your planning application will need to demonstrate that any environmental risks can be managed, through design and construction, for the development's lifetime. Alongside flood risk, the key environmental risks we'll consider are:

- **[Land Contamination](#)**
We're mainly interested in those sites where there is a risk of pollution to controlled waters. You should investigate any contamination to see whether the environmental risk or cost of clean-up (remediation) would hinder your proposal. If contamination is known or suspected, a desktop study, investigation, remediation and other works may be required to enable safe development. Our [model procedures for the management of land contamination](#) provide further information.
- **[Pollution prevention](#)**
Your application should demonstrate how you'll minimise the risk of pollution from all aspects of your development, including construction and

operation phases. Groundwater can be vulnerable to pollution, as well as rivers and streams. Some areas (source protection zones and aquifers) are especially sensitive to pollutants as they typically supply public drinking water. To find out whether your development is located in an area sensitive to groundwater pollution, visit our interactive [maps](#). Advice on groundwater protection can be found on [GOV.UK](#)

- **Fisheries, biodiversity, geomorphology and protected species**

If your proposal is likely to affect the ecology of a main river, you'll need to carry out a risk assessment. This assessment should show that your development can proceed without demonstrable harm, and should propose mitigation, compensation or enhancements where required. A survey should be carried out if any protected species are thought to be nearby. If this survey confirms the presence of protected species or their habitat, measures should be taken to manage the development's risks. Natural England are the statutory consultee for other biodiversity-related matters. Further information on their remit can be found on [GOV.UK](#)

- **Water framework directive**

If your proposal affects ground or surface waterbodies, you'll need to consider the [Water Framework Directive](#) (WFD) and the actions set out in the [Humber River Basin Management Plan](#). You'll also need to submit a [WFD Assessment](#) demonstrating how the development will prevent deterioration and improve the waterbody's ecological status.

- **River buffer zone**

Your development should ensure that an 8m strip of land (planted with locally appropriate, native species) is left undisturbed next to the bank of any main river. This 'river corridor' will improve habitat connectivity and will ensure we're able to access the bank for any future flood defence construction and maintenance.

- **Culverting**

We're opposed to culverting. Culverts degrade watercourses' ecology and prevent the movement of wildlife and fish. As culverts can easily become blocked, they increase flood risk. They're also difficult to inspect and maintain. We may object to any planning applications involving culverting on a main river and may refuse to grant an environmental permit. Existing culverts should be removed and the river channel and bankside habitat reinstated to restore the ecological continuity of the river channel and its corridor.

Will I need any other Environment Agency permits for my development?

You might need an environmental permit if your development manages or produces waste or emissions that pollute the air, water or land or is work that affects a [main river](#) or a sea defence. The lead local flood authority is responsible for any consents relating to ordinary watercourses.

The [Environmental Permitting Regulations \(England and Wales\) 2015](#) cover water discharges, groundwater activities, flood risk activities, radioactive substances, waste, mining waste and installations. They also include provision for a number of directives including batteries. Further information, including contact details for further permitting related enquiries, can be found [here](#).

As planning and permitting decisions are often closely linked, we have issued detailed [guidance for developments requiring planning permission and environmental permits](#). This guidance explains how, when responding to planning consultations that require environmental permits, we will advise of three possible positions:

- No major permitting concerns
- More detailed consideration is required and parallel tracking is recommended
- Don't proceed – unlikely to grant a permit.

PRE-APPLICATION ADVICE

Can you provide site-specific advice, review a submission document, or attend a site meeting before I submit my planning application?

We encourage you to seek pre-application advice as it can help you solve key environmental issues early, reduce the chance of an objection and help you design a more sustainable development. If you'd like to take advantage of this service, please email our Sustainable Places team so that we can provide further details and estimated costs.

Please note that any pre-application guidance we provide doesn't represent our final view in relation to any future planning application. We recommend that you seek your own expert advice prior to submitting your application.

Who should I contact for further information?

Yorkshire planning enquiries: sp-yorkshire@environment-agency.gov.uk

General enquiries: 03708 506 506

Environment Agency, Lateral, 8 City Walk, Leeds LS11 9AT
<https://www.gov.uk/government/organisations/environment-agency>

The Flood Map for Planning

The Flood Map for Planning (Rivers and Sea) can be viewed and downloaded as a PDF file on GOV.UK by following this link: <https://flood-map-for-planning.service.gov.uk> or downloaded in GIS format under an open data licence from the following address: <https://data.gov.uk/publisher/environment-agency>

Please type Flood Map for Planning in the search box.

What is the Flood Map for Planning?

The Flood Map for Planning 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 for Planning 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. However, in close proximity to this location we do have some flood history available (see enclosed map). The extent of flooding, and/or flood level information is only shown for those watercourses surveyed after the flood. Other flooding may have occurred which is not shown. This is the best information currently available.

Name	Start Date	End Date	Flood Source	Flood Cause	Source of data
June 2007 Flood Event (Ridings Area)	25/06/2007	26/06/2007	unknown	unknown	Unknown
June 2007 Flood Event (Ridings Area)	25/06/2007	26/06/2007	unknown	unknown	Aerial Photography
June 2007 Surface Water Flooding Yorkshire	15/06/2007	25/06/2007	other	unknown	Aerial Photography

Please note that this record doesn't include all of the flooding that may have occurred during and since February 2020. Given the process of recording, verifying and updating our record from major floods is extensive and may take a considerable amount of time.

Assets

Asset Location Map

Please find attached asset map(s) showing location of all (Agency and non Agency maintained) flood defences and channels.

Description of Works

See attached table with description of the defences and structures shown on the above drawing, including condition ratings, upstream and downstream crest levels, where available.

Risk of Flooding – Environment Agency Defences

The risk of flooding in this area is now reduced by the presence of flood defences that we maintain, but there still is a residual risk of flooding if these were to breach or be overtopped by a flood greater than that for which they were designed.

Risk of Flooding – Privately Maintained Defences

You will see that the Environment Agency does not maintain any of those defences. However we undertake regular risk based visual inspections. We do not hold design levels and have no height information on these defences or structures.

Asset Condition Ratings

The performance of a flood defence asset is recorded as the condition of the asset. Our asset inspectors subjectively assess the conditions of assets (during visual inspection site visits) with reference to a national standard template. Each asset is given a rating between one and five with one being very good condition and five being very poor. A condition rating of 3, or 'fair' is the minimal acceptable standard for a critical asset, such as a defence wall that protects properties. We are striving to improve all assets below 'fair' to an acceptable standard.

Asset inspections are done on average every six months, although some critical assets are assessed on a more regular basis. It is possible that adjacent assets are inspected on different dates, which may result in two assets of a similar state of repair having different condition ratings.

Condition ratings of assets may also be affected by the time of year the surveys are conducted, as vegetation may obscure the asset in the summer months, or accessibility may be an issue during winter months. These factors would not usually affect the recorded condition rating of an asset unless the asset is on a borderline between two ratings.

Asset Standard of Protection

Please note that the provided Design Standard of Protection is an estimate and should not be relied on. Please note that where available the defended flood extents provide more reliable information relating to the protection offered by the defence (i.e. at which return period the water levels are likely to overtop the defence). If available and required the defended flood extents can be provided on request.

Modelling

Catchment Flood Management Plan (CFMP)

Unfortunately we don't hold any water levels at this location as no detailed modelling has been undertaken for this area. The Flood Map for Planning was updated in 2012 with the results of our 2008 Catchment Flood Management Plan model, which have been produced by a re-run of NGM (National Generalized) JFLOW model with improved DTM (Digital Terrain Model) – LiDAR. This study has been undertaken on a large regional scale and no detailed results (such as water levels) have been produced.

They are not suitable for use in site specific Flood Risk Assessments or Strategic Flood Risk Assessments and must not normally be used for these studies.

Climate Change

Updated guidance on how climate change could affect flood risk to new development - '[Flood risk assessments: climate change allowances](#)' was published on gov.uk on 19 February 2016. You should confirm the flood risk vulnerability classification and lifetime of your proposed development in line with NPPF and apply the appropriate climate change allowances.

Bespoke Flood Risk Assessment (FRA) advice:

If the pre-application advice is required with regards the preparation of a site-specific Flood Risk Assessment, this can be requested via the Yorkshire Sustainable Places team (email: sp-yorkshire@environment-agency.gov.uk). Charges may apply for any advice that is provided, this currently stands at £100 per hour per person. The [.gov.uk](#) pages provide a good starting point on what to include within a site-specific Flood Risk Assessment and can be accessed via <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>. A site-specific Flood Risk Assessment will need to consider flood risks from all sources, including those associated with defence failure (e.g. breach) and accounting for the predicted impacts as a result of climate change. Please contact the Sustainable Places team if you require advice on how to include these within a Flood Risk Assessment.

Other

Surface Water Map

Lead Local Flood Authorities (LLFA) are responsible for managing local flood risk from surface water flooding and groundwater flooding. You should check with the LLFA as they may have more up to date information regarding this type of flooding.

The Risk of Flooding from Surface Water Flood Map can be viewed and downloaded as a PDF file on GOV.UK by following this link: <https://flood-warning-information.service.gov.uk/long-term-flood-risk>

Please note:

It is not possible to say for certain what the flood risk is but we use the best information available to provide an indication so that people can make informed choices about living with or managing the risks. The information we supply does not provide an indicator of flood risk at an individual property / site level.

The flood risk information provided on the attached map does not cover other sources of flooding such as from rivers and sea.

Surface Water Drainage

The Lead Local Flood Authority is the statutory consultee for planning matters relating to surface water drainage, therefore it is recommended they should be consulted separately regarding this.

Surface water discharge from new development should ideally 'mimic' the pre-development situation using a sustainable drainage system so that the flow and volume of water in watercourses is not increased.

A permit may be required, under the Environmental Permitting Regulations 2016 from the Environment Agency for any proposed works or structures in, under, over or within eight metres of a 'main river' (e.g. a new outfall). A permit is separate to and in addition to any planning permission granted. Further details and guidance are available on the GOV.UK website:

<https://www.gov.uk/guidance/flood-risk-activities-environmental-permits>

Risk of Flooding from Reservoirs Map

Outlines and simplified depth and velocity maps can be viewed on our website:

<https://flood-warning-information.service.gov.uk/long-term-flood-risk/#x=438988&y=406600&scale=2>

Please, zoom into the location of interest, and then click on the inundated location for details. As a result a list of reservoirs will be provided with supporting information and a links to other data, such as estimated depths and speed of flooding, at the bottom of the result page.

A map of showing the outlines can also be provided on request.

Flood Warning

The site is not covered by a Flood Warning.

LIDAR Data

Please note that our LiDAR data is now available free of charge (Open Data) from

<http://environment.data.gov.uk/ds/survey/index.jsp#/survey> (once zoomed to the relevant location the available LiDAR products will be listed below the map).

Two LIDAR products are available:

1. Tiled LIDAR data - The full tiled dataset consists of historic LIDAR data which has been gathered since 1998. For some areas we have carried out repeat surveys and data is available in a range of resolutions.
2. Composite LIDAR data - The composite dataset is derived from a combination of our full tiled dataset which has been merged and re-sampled to give the best possible spatial coverage.

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.

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.

For more information on Rights and Responsibilities of a riverside owner, you can visit our website at:

<https://www.gov.uk/guidance/owning-a-watercourse>

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.



Michael D Joyce Associates LLP

Geotechnical and Geoenvironmental Consultants

Charnock Court 6 South Parade Wakefield West Yorkshire WF1 1LR

Tel: 01924 360458

Web: www.geoenvironmental.co.uk Email: mdja@geoenvironmental.co.uk