

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

See the attached map showing the flood history for this site. 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.

Please refer to the following table detailing the causes of those past floods.

Name	Start Date	End Date	Flood Source	Flood Cause	Flood Map Status	Historical Flood Map Status	Source of data
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	main river	overtopping of defences	considered and accepted	considered and accepted	Visual
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Satellite - Radar
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	main river	overtopping of defences	considered and accepted	considered and accepted	Aerial Photography
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	ordinary watercourse	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Satellite - Radar
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Aerial Photography
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	ordinary watercourse	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Aerial Photography
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	main river	overtopping of defences	considered and accepted	considered and accepted	Survey
2020 February Flood Incident - Storm Dennis	15/02/2020	19/03/2020	ordinary watercourse	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Visual
2020 February Flood Incident - Storm Ciara	08/02/2020	14/02/2020	main river	overtopping of defences	considered and accepted	considered and accepted	Visual
2020 February Flood Incident - Storm Ciara	08/02/2020	14/02/2020	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Satellite - Radar
December 2015 Flood Event	25/12/2015	29/12/2015	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Memory
December 2015 Flood Event	25/12/2015	29/12/2015	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Unknown
December 2015 Flood Event	25/12/2015	29/12/2015	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Survey

December 2015 Flood Event	25/12/2015	29/12/2015	main river	channel capacity exceeded (no raised defences)	considered and accepted	considered and accepted	Aerial Photography
June 2007 Flood Event (Ridings Area)	25/06/2007	26/06/2007	unknown	unknown	considered and accepted	considered and accepted	Aerial Photography
123 Autumn 2000	31/10/2000	15/12/2000	main river	unknown	considered and accepted	considered and accepted	Aerial Photography
Autumn 2000 Event	30/10/2000	15/11/2000	unknown	overtopping of defences	considered and accepted	considered and accepted	Survey
123 Autumn 2000 - Lower Aire	30/10/2000	15/12/2000	main river	unknown	considered and accepted	considered and accepted	Survey
123 Autumn 2000	30/10/2000	15/12/2000	main river	unknown	considered and accepted	considered and accepted	Survey
123 Autumn 2000 - Gowdall	01/10/2000	30/11/2000	main river	operational failure/breach of defence	considered and accepted	considered and accepted	Other
Derwent March 1999 Event	02/03/1999	16/03/1999	unknown	overtopping of defences	considered and accepted	considered and accepted	Survey
123 February 1995 - Lower Aire	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
123 February 1995 - Lower Aire West Marsh	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
123 February 1995 - Lower Aire Hensall Ings	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
123 February 1995 - Rawcliffe	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
123 February 1995 - Lower Aire Heck Ings	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
123 February 1995	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
123 February 1995 - Lower Aire Eggborough Ings	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography

123 February 1995 - Lower Aire Hirst Courtney Ings	01/02/1995	28/02/1995	main river	other	considered and accepted	considered and accepted	Aerial Photography
1995 Flood Event	28/01/1995	04/02/1995	unknown	overtopping of defences	considered and accepted	considered and accepted	Survey
123 January 1982 - Lower Aire Eggborough Ings	03/01/1982	31/01/1982	main river	other	considered and accepted	considered and accepted	Survey
123 January 1982 - Lower Aire Hensall Ings	03/01/1982	31/01/1982	main river	other	considered and accepted	considered and accepted	Survey
123 January 1982 - Lower Aire	01/01/1982	31/01/1982	drainage	unknown	considered and accepted	considered and accepted	Survey
123 January 1982 - Lower Aire West Marsh	01/01/1982	31/01/1982	main river	other	considered and accepted	considered and accepted	Survey

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.

Please note that this record doesn't include all of the flooding that may have occurred including and since 2nd March 2022. 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 the location of all (Agency and non Agency maintained) flood defences.

Description of Works

See attached table with description of the defences 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.

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.

Please note that information about high ground, structures (such as weirs, control gates or screens) and channels (culverts) are no longer given out in Product 4, unless specifically requested. If you'd like to see this data, please let us know.

Modelling

Please note that as you requested both Product 4 and 6, to avoid duplication of information, data provided in digital form such as in-channel water levels, flows and location of the cross sections are not provided as maps and tables in pdf format.

Upper Humber Study, 2016 and Lower Aire Model, 2017

We have provided you with a copy of the Model Data Files for the 2016 Upper Humber Study and 2017 Lower Aire Model. Also provided is a copy of the Modelling Reports (Product 5). They can be downloaded from the ShareFile link below:

2016 Upper Humber Study: <https://ea.sharefile.com/d-scfe18715e8ee4c2ebd2939c99e0e84b7>

2017 Lower Aire Model: <https://ea.sharefile.com/d-s4c7d287cf1ee4496a7cef9f14d869d3a>

There is a Conditional Data Licence associated with the provision of the Model. This sets out the Terms and Conditions for the uses of the Data.

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>

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.

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.