

Andrew Mair
Andrew Mair Ltd
andrew@amarch.org

Our ref: 323163-WX
Date: 14th September 2023

Dear Andrew Mair,

Thank you for your enquiry which was received on 21st August 2023. We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004.

Abstract

Name	Product 4
Description	Detailed Flood Risk Assessment Map for 18 Grace Close, Chipping Sodbury, Bristol, BS37 6NS NGR: ST7339082445
Licence	Open Government Licence
Information Warnings	<i>The mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply.</i>
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2019 Ordnance Survey 100024198.

Flood Map for Planning

The Flood Map for Planning is now classed as Open Data. It can be downloaded free of charge under an open data licence from the following weblink:

<https://data.gov.uk/publisher/environment-agency>

If you search for the 'flood map for planning' in the search box the following datasets will be available for you select and download the data:

- Flood Map for Planning (Rivers and the Sea) – Flood Zones 2 and 3
- Flood Map for Planning (Rivers and Sea) – Areas Benefiting from Defences
- Flood Map for Planning (Rivers and Sea) Flood Storage Areas
- Flood Map for Planning – Spatial Flood Defences (without Standard attributes)
- Recorded Flood Outlines
- Historic Flood Map
- Risk of Flooding from Surface Water Extent for:
 - 3 percent annual chance
 - 1 percent annual chance
 - 0.1 percent annual chance

If you have requested this information to help inform a development proposal, then you should also note the detail in the attached advisory text on the use of Environment Agency Information and Further Guidance for FRAs.

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Email: wessexenquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

Flooding History

We no longer produce pdf copies of the Historic Flood Map. This information is available to search select, and download free of charge as part of the Government's 'open data' as

- Recorded Flood Outlines
- the Historic Flood Map

These are GIS layers and can be downloaded from: <https://data.gov.uk/publisher/environment-agency>

Please note: we cannot guarantee that this is an exhaustive list of all past flood events in this location. All reasonable care has been taken to ensure that the historical flood event data is as accurate as possible. The Environment Agency will update its records if new evidence emerges.

Strategic Flood Risk Assessment (SFRA)

When preparing your Flood Risk Assessment (FRA) to support the planning application, you should also refer to South Gloucestershire Council's Level 1 and Level 2 SFRA's available to download via the following link: <https://beta.southglos.gov.uk/local-plan-2020-evidence-base>.

A SFRA Level 2 is also available for Oldbury-on-Severn.

Planning

If you have questions regarding the planning nature of your enquiry, or require advice on floor levels, please contact our Sustainable Places team on NWX.SP@environment-agency.gov.uk. Please be aware that we now charge for planning advice when consulted on pre-application enquiries. This new approach provides advice to developers in two ways. Firstly, there is the provision of 'free' advice available to everyone where we give a preliminary opinion on a proposed development. This sets out the environmental constraints together with any issues this raises for us. Should you wish us to review in detail any of these issues then we can do this through a chargeable scheme aimed at recovering our costs.

Flood Levels

Fluvial flood levels and depths

The attached map contains a set of modelled fluvial flood level node locations/unique identifiers, for the main river Frome (Bristol), taken from our Yate and Chipping Sodbury Flood Model (2016) model. A sheet is also attached providing the associated flood levels, NGRs and further information for the river channel relating to each of these nodes. Please note that the labels annotated to the Node Location Map are unique node identifiers and not the associated flood levels.

Node type information:

- 1D_fluvial
 - In channel nodes, no 2D element to the modelling
- 2D_fluvial
 - In channel nodes, 2D data available from the modelling
- Interpolated sections
 - Calculated weighted averages of the river or conduit section properties upstream and downstream to produce a hybrid section according to the location of the interpolated section. They are used to ensure a smooth gradation or transition between cross sections to avoid sudden variations which can cause instability in a model. This may be where the distance between surveyed cross sections is large and there is a steep gradient to the channel or other distinct changes between the two sections.
- Replicate sections

- Used to copy the preceding river or conduit section at a distance further along the reach and at a lower level. The Replicated Section is a quick method for adding a cross-section which has exactly the same dimensions as the cross-section immediately upstream.
- Reservoir
 - Modelled measurements outside the boundary of the river channel.

Interpolated and Replicate sections are not surveyed sections; however, they are based on surveyed section data and the results from them can be used as long as their limitations are understood.

If you intend undertaking a FRA for a planning application using climate change flood level information supplied in this letter, you should consider whether it is appropriate in light of a range of potential allowances for fluvial flood flow now advised in current planning guidance on 'Flood risk assessments: climate change allowances'. The relevant guidance is available at the following website address:

<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

We have included a briefing note that refers to the 2018 Climate Change projections. Our Sustainable places team would be happy to discuss the issues around Climate Change and how this should be used.

Please see the table below for maximum 2D depth and level information for your site for a range of return periods. Please note that the maximum flood depths include all low points within your site of interest, which include watercourses, ditches, rhynes and low ground spots.

DEFENDED

5% (1 in 20) AEP Fluvial Depth	0.00m
1% (1 in 100) AEP Fluvial Depth	0.14m
1% (1 in 100) AEP +20%CC Fluvial Depth	0.25m
1% (1 in 100) AEP +30%CC Fluvial Depth	0.30m
1% (1 in 100) AEP +40%CC Fluvial Depth	0.36m
0.1% (1 in 1000) AEP Fluvial Depth	0.52m

5% (1 in 20) AEP Fluvial Level	0.00mAOD
1% (1 in 100) AEP Fluvial Level	92.27mAOD
1% (1 in 100) AEP +20%CC Fluvial Level	92.37mAOD
1% (1 in 100) AEP +30%CC Fluvial Level	92.43mAOD
1% (1 in 100) AEP +40%CC Fluvial Level	92.48mAOD
0.1% (1 in 1000) AEP Fluvial Level	92.65mAOD

UNDEFENDED

5% (1 in 20) AEP Fluvial Depth	0.00m
1% (1 in 100) AEP Fluvial Depth	0.14m
1% (1 in 100) AEP +20%CC Fluvial Depth	0.24m
1% (1 in 100) AEP +30%CC Fluvial Depth	0.29m
1% (1 in 100) AEP +40%CC Fluvial Depth	0.34m
0.1% (1 in 1000) AEP Fluvial Depth	0.52m

5% (1 in 20) AEP Fluvial Level	0.00mAOD
1% (1 in 100) AEP Fluvial Level	92.27mAOD

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1% (1 in 100) AEP +20%CC Fluvial Level	92.37mAOD
1% (1 in 100) AEP +30%CC Fluvial Level	92.42mAOD
1% (1 in 100) AEP +40%CC Fluvial Level	92.47mAOD
0.1% (1 in 1000) AEP Fluvial Level	92.65mAOD

N.B. 0.00 (m or mAOD) indicates the data does not reach the site.

N.B. Levels and depths have been extracted based upon the site boundary plan provided.

N.B. Please note not all models contain climate change runs.

The modelled extent of the River Frome (Bristol) is from upstream at ST 68867 82372 to downstream at ST 73758 81598.

Flood Defences

Please find enclosed details of Flood Defences within the vicinity of the site boundary. This information has been taken from our Asset Information Management System database (AIMS).

Please note that flood defences can increase water levels elsewhere e.g., through channels being restricted by defences, or because defences prevent flood water flowing back into the river channel.

Environmental Permit for Flood Risk Activities

In addition to any other permission(s) that you may have already obtained e.g., planning permission, you may need an environmental permit for flood risk activities (formerly known as Flood Defence Consent prior to 06 April 2016) if you want to do work:

- in, under, over or near a main river (including where the river is in a culvert)
- on or near a flood defence on a main river
- in the flood plain of a main river
- on or near a sea defence

For further information and to check whether a permit is required please visit:

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

For any further advice, please contact your local Environment Agency Office, at

bridgwater.frap@environment-agency.gov.uk.

Further Information

We advise that you also contact the Flood Risk Management Team, by email LeadLocalFloodAuthority@southglos.gov.uk, or by telephone, 01454 868000, at South Gloucestershire Council, Council Offices, Badminton Road, Yate, Bristol, BS37 5AF, as they may be able to provide further advice with respect to localised flooding and drainage issues.

Further details about the Environment Agency information supplied can be found on our website:

<https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather>

If you have requested this information to help inform a development proposal, then you should note the information on GOV.UK on the use of Environment Agency Information for FRAs:

<https://www.gov.uk/planning-applications-assessing-flood-risk>

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

We hope you find this information helpful, and it is provided subject to the guidance below, which we strongly recommend you read.

Yours sincerely,

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Katy Barnes

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Enc: Use of Environment Agency Information for Flood Risk Assessments (below)
UKCP18 Climate Change Briefing Note
323163-WX Node Location Map
323163-WX Node Data
323163-WX Defence Map
323163-WX Defence Data

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Use of Environment Agency Information for Flood Risk Assessments (FRAs)

Important

Use of Environment Agency data: you should note that

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk Assessment (FRA) where one is required, but the use of Environment Agency information does not constitute such an assessment on its own.
2. As part of your data request, we have provided all of the modelled data we hold for your location. Please note that some of our modelled information may have been produced for purposes other than for flood zone generation. This may mean that some of the modelled data you have been provided with has a lower confidence level, and has not been used in producing our flood map, nor definitively reflects the predicted flood water level at the property/development site scale. To check the suitability of the use of this information in your FRA please contact your local Partnership & Strategic Overview (PSO) team.
3. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or surface water runoff. The information produced by the Local Planning Authority and the Lead Local Flood Authority (LLFA) may assist in assessing other sources of flood risk.
4. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection.
5. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your Local Planning Authority.

Pre-Planning Advice from the Environment Agency

If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:

Pre-application Preliminary Opinion:

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Pre-application Charged Service:

<https://www.gov.uk/government/publications/planning-advice-environment-agency-standard-terms-and-conditions>

Depending on the enquiry we may also provide advice on other issues related to our responsibilities, including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

Flood Risk Assessment (FRA) Guidance

You should refer to the Planning Practice Guidance of the National Planning Policy Framework (NPPF) and the Environment Agency's Flood Risk Standing Advice for information about Flood Risk Assessment (FRA) for new development in the different Flood Zones. These documents can be accessed via:

National Planning Policy Framework Planning Practice Guidance:

<http://planningguidance.planningportal.gov.uk/>

Environment Agency advice on FRAs:

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www.environment-agency.gov.uk

<https://www.gov.uk/flood-risk-assessment-for-planning-applications#when-to-follow-standing-advice>

<https://www.gov.uk/government/publications/planning-applications-assessing-flood-risk>