NaFRA2 and NCERM Q&A

Questions and Answers for Environment Agency and Risk Management Authority Staff on National Flood Risk Assessment 2 (NaFRA2) and National Coastal Erosion Risk Map (NCERM)

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About this document

This document is intended to provide Environment Agency and Risk Management Authority staff with comprehensive and usable answers to questions about our new National Flood Risk Assessment (NaFRA2), the National Coastal Erosion Risk Map (NCERM) and Flood Map for Planning (FMfP).

This document will be continually reviewed and updated to ensure existing answers are up-to-date and new questions and answers can be added.

Who is this document for?

Any Environment Agency and Risk Management Authority staff who are interested in or work with any aspect of NaFRA2, NCERM or FMfP project, data and products.

Other useful resources

This document is provided in the context of a range of guidance, briefing notes and other comms and engagement resources. A directory of these resources is available on SharePoint: NaFRA2 and NCERM - New flood and coastal erosion risk information. RMA's can request access to this site via this form.

Other supporting information available for RMA's on managing the Risk of Flooding from Surface Water can be found on this page: Answering enquiries about the Risk of Flooding from Surface Water (RoFSW) maps

We have also updated the information available for the public on gov.uk: Risk of flooding from surface water – understanding and using the map - GOV.UK.

Version control history

12.11.2024	Version 1.0	Creation of document, structure and populating first answers to priority questions.
15.11.2024	Version 2.0	Finalised document ready for publication
02.12.2024	Version 3.0	NCERM2 questions added about early access
17.12.2024	Version 4.0	Report questions added
28.01.2025	Version 5.0	New questions added about data update on 28.01.2025.
17.02.2025	Version 6.0	New questions added on 17.02.2025
11.03.2025	Version 7.0	New questions
30.07.2025	Version 8.0	New questions added, questions removed
13.08.2025	Version 9.0	Flood Map for Planning questions updated
16.12.2025	Version 10.0	Flood Map for Planning questions updated
30.03.2026	Version 11.0	General updates
13.05.2026	Version 12.0	Flood Map for Planning questions updated

Contents

Changes to flood and coastal erosion risk information

1. Why have we updated our flood and coastal erosion information?

The Environment Agency is required to update our understanding of current and future flood and coastal erosion risk as part of our 'Strategic Overview' role.

One of our key public commitments in the FCERM Strategy and Roadmap to 2026 is "Between now and 2025 the Environment Agency will have better evidence to inform future risk and investment needs for managing all sources of flooding and coastal change".

As part of this we had a commitment by the end of 2024 to publish 2 significant improvements in mapping and communicating our flood and coastal erosion risk information:

- A new National Flood Risk Assessment (NaFRA2)
- A new National Coastal Erosion Risk Map (NCERM)

To help us communicate NaFRA2 and NCERM in an integrated and easy to understand way on the **17 December 2024** we published the 'National assessment of flood and coastal erosion risk in England 2024' report. This is a summary of our NaFRA2 and NCERM data.

We also published:

- **28 January 2025:** New NaFRA2 'Risk of flooding from rivers and sea' and 'Risk of flooding from surface water' data on Check your long term flood risk for an area in England and on data.gov.uk.
- **28 January 2025:** Updated NCERM on Check coastal erosion risk for an area in England, Shoreline Management Plan Explorer and on data.gov.uk.
- **25 March 2025**: New NaFRA2 'Flood zone' data on 'Flood map for planning' and on data.gov.uk.

2. How will these changes impact flood and coastal erosion risk management?

The improvements provide Flood and Coastal Risk Management Authorities, emergency services, and policymakers with more accurate data for decision-making. The improved data will support better planning for new developments away from high-risk zones, help develop and implement flood and coastal schemes such as

defences, and other resilience measures, including improvements to early warning systems, helping to protect communities and key infrastructure.

3. Can the new data show the flood and coastal erosion risk for specific properties or infrastructure?

Our new national flood and coastal erosion risk assessment outputs are not suitable for detailed property-level assessment. Instead, they estimate flood and coastal erosion risk for an area of land which may include properties or infrastructure. Our report refers to 'properties in areas at risk of flooding and coastal erosion' for this reason.

The Environment Agency does not hold detailed information such as doorstep levels or property flood resistance measures that will influence the circumstances when floodwater may start to enter a property and cause damage or disruption.

The erosion projections are provided to the nearest metre. These measurements are used to create the erosion risk zone but should not be used as a precise indication of shoreline position or timing of risk to individual properties or areas of land. Site specific local assessments of coastal erosion risk may provide greater detail and confidence, and these have been used where available.

4. What does the new flood or coastal erosion risk information in my area mean for my property insurance / mortgage / ability to sell my property?

The Environment Agency maps show the risk of flooding to areas of land and do not assess risk to individual properties. They show where is at risk, not where has or has not flooded before.

Both assessed flood risk and actual experience of flooding can influence decision making by financial institutions such as insurers or banks. Our National Flood Risk Assessment (NaFRA) is an influential risk assessment, but the financial sector also uses independently produced hazard models, for example to price insurance policies. NaFRA does not ascribe risk to individual properties because individual flood threshold levels (i.e. the water level needed to cause significant internal flooding) are generally not known. This context is made clear to all users of our data.

Flood Re is a flood reinsurance scheme designed to help households at high risk of flooding to access affordable insurance. It is a joint initiative between the government and insurers, part of the public sector but regulated by the Financial Conduct Authority. Affordable flood insurance can reduce any impact of assessed flood risk on house prices.

The national coastal erosion risk map shows erosion projections up to 2105 under a range of management and climate scenarios. It does not show the expected coastline position but a zone within which erosion is expected to occur. The information is not designed or intended for assessment of risk to individual properties.

Home insurance for coastal erosion is not generally available so the updated national coastal erosion risk map is unlikely to have a direct impact.

Home insurance for landslides/ground instability is available. The main areas of ground instability on the English coast which are now displayed on the updated map are already well-known.

The new coastal erosion risk map is of use in property conveyancing and for mortgage providers. It will provide solicitors, mortgage providers and underwriters with an improved understanding of risk to areas within which a property or properties sit. This will benefit estate agents and those seeking to buy or sell property.

5. What steps should people take in response to new risk information?

From 28 January 2025, people can review the updated flood risk information in their neighbourhood using the Check Your Long-Term Flood Risk and check coastal erosion service.

You can find guidance on preparing for flooding here: Prepare for flooding: Protect yourself from future flooding - GOV.UK.

From 28 January 2025, people can review the new National Coastal Erosion Risk Map on Check Coastal Erosion Risk for an Area in England service.

6. What will the Environment Agency do to help people and businesses in areas where the risk assessment indicates increased flood and coastal erosion risks?

The Environment Agency's long-term Flood & Coastal Erosion Risk Management (FCERM) Strategy aims to create climate-resilient places. Together with our partners, we are continuing to make good progress against the commitments outlined in the FCERM Strategy Roadmap.

As part of our Strategy commitment, we have worked closely with Flood Re to launch the Be Flood Smart campaign to showcase property flood resilience options available and raise awareness. Our campaign reached 10 million people and helped to improve understanding of the steps people can take to keep their property and

possessions safe. We will continue to raise this awareness around property flood resilience.

We have continued to improve our flood warning service, and encourage the public to check their long term flood risk, and to sign-up for flood warnings.

The Government has committed £2.4 billion to invest over the next two years to bolster the nation's resilience to protect homes and business across the country from flooding and coastal erosion. As part of this investment, we are prioritising repairing and restoring critical assets to get our defences back to their required condition. However, there may still be areas that are shown as high risk of flooding where we do not have sufficient funding available to address the known risk at this time. As part of developing the next investment programme we are identifying where these locations are so that we can prioritise effort in those places in the future. The new Flood Resilience Taskforce will play a key role in coordinating national and local flood preparation ahead of the winter flood season.

The Environment Agency are administering £36 million of government funding in the Coastal Transition Accelerator Programme (CTAP). This is providing funding to local authorities to support communities in areas at significant risk of coastal erosion in East Riding of Yorkshire, North Norfolk, Dorset and Cornwall to transition and adapt to a changing climate. This will include producing an adaptation plan and taking practical action, such as rolling back community assets and homes.

The Environment Agency also administers the Coastal Erosion Assistance Grant (CEAG) on behalf of the Government and provides £6,000 per property to assist local authorities with the demolition and removal costs associated with homes at imminent risk from coastal erosion.

We are currently developing a new flood and coastal investment programme. This will allow us to assure that our investment programmes are prioritising the places and projects where current and future risk is greatest. Our new Long Term Investment Scenarios (LTIS) due in 2025, will also provide important evidence for informing future policy and investment choices for improving resilience and adaptation to future climate risks.

7. Has the flood and coastal erosion risk rating changed in my area / this specific location?

The 'National assessment of flood and coastal erosion risk in England 2024' report covers national and regional data. As part of our phased approach to releasing our new flood and coastal erosion risk information, area specific data was released in 2025. You can find the latest dates for publication by visiting our Updates to national flood and coastal erosion risk information GOV.UK page. You can view the new data on our digital services: Check Your Long-Term Flood Risk, Flood Map for Planning

and the Defra Data Services Platform. The new NCERM data is available on check coastal erosion risk for an area in England, SMP Explorer and on data.gov.uk.

8. Why are the maps and numbers in your new information different from other estimates of flood risk for England?

A number of other flood risk assessments for England have been produced by other organisations who study flood risk or for particular purposes such as assessing risks for insurance companies.

The Environment Agency's mapping has the unique advantage of being able to make use of output from more than 1,000 detailed local models of flood risk from rivers and sea and more than 200 detailed local models of surface water developed by Local Authorities. We have also made extensive use of Environment Agency data on flood defences as well as the on-the-ground experience of Environment Agency and Local Authority officers who have reviewed draft data and helped us to ensure the modelling is as accurate as possible.

While there are technical strengths and weaknesses in all modelling approaches and other assessments are useful for particular purposes, our approach makes the best possible use of this rich data, local knowledge and the latest computing power. Importantly, our mapping outputs provide a best estimate of the areas at risk and flood depths in a format that we know a wide range of national and local users find most helpful.

9. How will the new flood and coastal erosion risk information impact your existing datasets?

Our existing datasets have been updated, not removed. This includes:

- Flood Zones
- Risk of Flooding from Rivers and Sea (RoFRS)
- Risk of Flooding from Surface Water (RoFSW)
- National Coastal Erosion Risk Mapping (NCERM)

In some cases, the datasets changed format. We have also published additional datasets, including for climate change. Details of the information we have published are available online here: Defra Data Services Platform.

10. How often will updates to the flood and coastal erosion risk information occur?

There have been updates to Risk of Flooding from Rivers and the Sea, Risk of Flooding from Surface Water and Flood Zones datasets from summer 2025. Updates to these flood risk products took place in stages. Further details can be found on this page on our Defra Data Services Platform.

In the future, we plan to update flood risk datasets every 3 months. For the time being, flood risk updates will be less frequent as our new processes are established.

The national coastal erosion risk mapping will be updated annually from 2026.

11. What is the expected economic impact of flood risk across England?

We know that flooding can cause significant economic damages to people, businesses, landowners and infrastructure. Every year the damage caused by flooding is different depending on the weather conditions. During the winter of 2015-16, between £1.69bn and £2.47bn of damage occurred, with a best estimate of £2.09bn (2024 prices).

We estimate the total economic damages for all floods between January 2016 and November 2019 in England and Wales to be between £504 million and £924 million. The best estimate is £708 million in 2024 prices.

12. How does the Environment Agency evaluate and communicate the risk of flooding from reservoirs?

The modelling and mapping of reservoirs is managed separately in the Environment Agency. We communicate the risk of flooding from reservoirs through Check the long term flood risk for an area in England on GOV.UK. Reservoir flood map data is also available on the Defra Data Services Platform.

13. Will the new national flood and coastal erosion risk assessment constrain development and jeopardise the government's house-building targets?

The government's National Planning Policy Framework is clear that Local Planning Authority decisions about both local plans and planning applications should be informed by an understanding of all sources of current and future flood risk. Our new

data should instil greater confidence in planners and developers to pursue the right kinds of development in the right places.

Our new flood and coastal erosion risk assessment data helps planners and developers to identify the lowest risk locations for development. It will also help inform when a flood risk assessment is needed and when the Environment Agency must be consulted for advice.

The new coastal erosion risk data also helps planners identify and update Coastal Change Management Areas (CCMAs) in locations likely to be affected by physical changes to the coast.

14. How will the new flood risk assessment affect the flood warning service?

We will use our new flood risk assessment information to review the coverage of our flood warning service. We will undertake that review over the coming year and subsequently adjust our Flood Warning Service as required.

15. What climate change scenarios have been published? How did you decide on these?

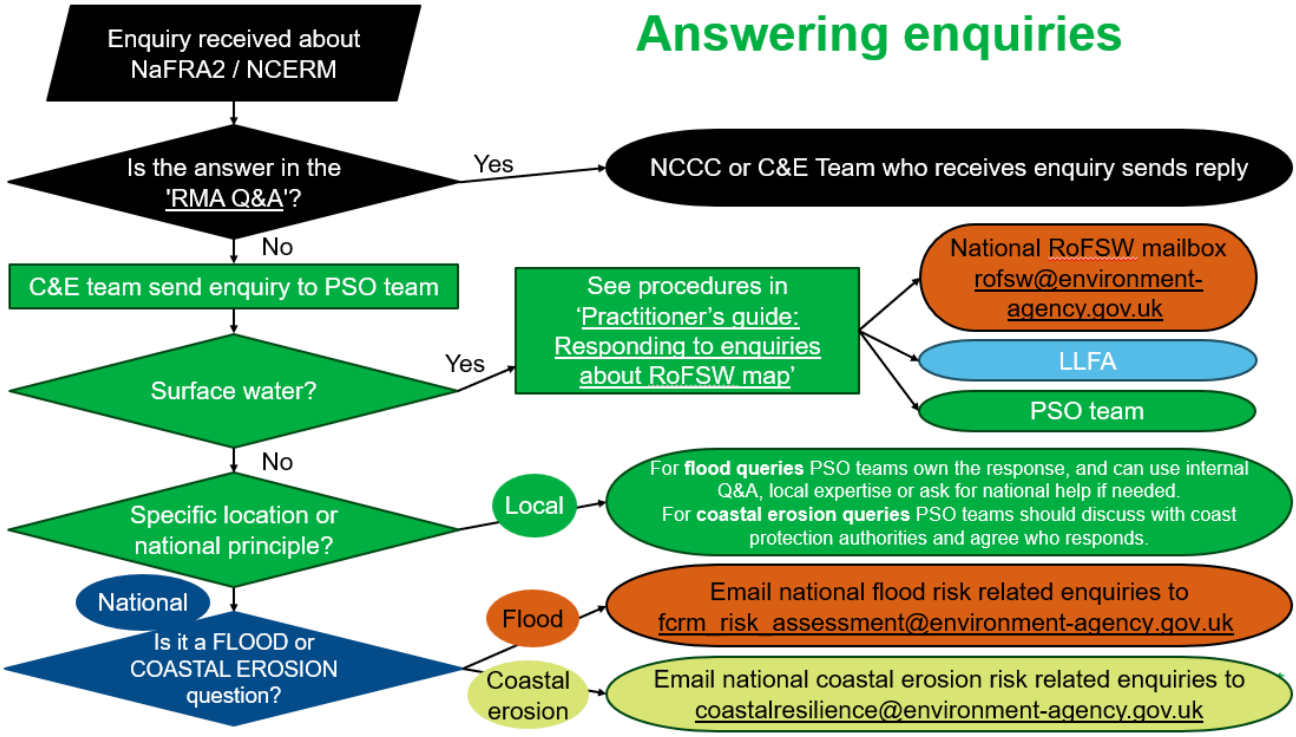
We have created information which indicates the possible impacts of climate change on future risk. We have selected the scenarios from our Flood risk assessment: climate change allowances considered most relevant to the expected uses of the data. The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5.

You can find more details on which allowances we have chosen for our different flood risk products by visiting this page on the Defra Data Services Platform: Defra Data Services Platform.

National Flood Risk Assessment 2

Lines to take for queries from public or partners

We have produced a diagram setting out how to manage queries and who owns the response, as below. Please note that this not a new process but captures existing roles and responsibilities. We also know that queries are not always clearly one or the other. We have produced a large number of resources to assist in answering queries, including the 'lines to take' below, and the national flood and coastal erosion teams are also available to support.



16. What is NaFRA2? Why do we need a new national flood risk assessment?

We have developed a new national flood risk assessment to meet changing needs for flood risk information:

- an indication of current and future flood risk to guide investment and development planning.
- scenarios to plan for, respond and adapt to flooding
- better and clearer information to help our customers and partners understand flood risk and take action to build resilience

17. What is the risk of flooding in my area?

You can check the risk of flooding for an area by visiting our website Check Your Long-Term Flood Risk.

The Environment Agency first updated flood risk information in January 2025 with information from the new National Flood Risk Assessment (NaFRA2). This will have resulted in changes to flood risk ratings in some locations.

You are now able to see the new flood risk information on our website Check Your Long-Term Flood Risk. For more information about this work, please visit our GOV.UK page here: https://www.gov.uk/guidance/updates-to-national-flood-and-coastal-erosion-risk-information.

18. Why has the flood risk rating changed in my area?

The answer in this section was prepared in advance for use after the new flood risk mapping data was published in the first quarter of 2025. This is intended to help Lead Local Flood Authorities or other partners prepare to answer anticipated questions from the public or other stakeholders when they look at the newly published data.

High-level answer:

We updated our flood risk information in early 2025 as part of our new national flood risk assessment (NaFRA2). We have used new and improved methods to update our assessment of flood risk across England. This has led to updated flood risk ratings in many locations.

Medium-level answer:

The flood risk rating in your area may have gone up, down, or stayed the same. Some of the key reasons for change are listed below:

We may be using a new or different flood risk model in your location. For example, we have created our best-ever national model which has improved our mapping of flood risk in many locations.

We have improved the way we account for flood defences and other assets. Your area may be at higher or lower risk of flooding depending on any flood defences in your location. As part of our updates in early 2025, we are now able to include a wider range of flood defences, and we have changed how we calculate their role in reducing flood risk.

We have changed how our maps are presented. For example, our new maps are higher resolution than before (for flooding from rivers and sea), and we have updated how much water we count as ‘flooding’ in our surface water maps.

Actual flood risk in your location may have changed. Flood risk is always changing. You may be at higher or lower risk because of local changes (for example in topography or flood defences). Over time, we also expect to see changes in flood risk due to climate change.

Further information can be found in the briefing: 'Why has the flood risk rating changed in your area? (January 2025)' which can be supplied to customers where it is of interest.

19. How can I query the flood risk rating in my area and request changes?

The Environment Agency updated flood risk information in January 2025 with information from the new National Flood Risk Assessment (NaFRA2). This will have resulted in changes to flood risk ratings in some locations.

You can see the new flood risk information by visiting the website Check Your Long-Term Flood Risk. For more information about this work, please visit the GOV.UK page here: https://www.gov.uk/guidance/updates-to-national-flood-and-coastal-erosion-risk-information.

If you would like us to review evidence and change your flood risk rating, you will need to contact enquiries@environment-agency.gov.uk with details of the flood risk product and location where you have reason to believe the flood risk rating shown is incorrect. This is known as an Evidence Review Request.

You will then be advised of the evidence required to make changes to a future publication of our flood risk products.

If the Evidence Review Request relates to surface water flood risk, then you should contact your Lead Local Flood Authority for further advice.

20. What data have we, and are we planning, to publish?

An answer to this question can be found on the Defra Data Services Platform

21. What data is available on the Defra Data Services Platform (DSP)?

We have published an announcement on the DSP that lists the datasets we have published, and information on how customers can access the data. Please visit this link: Defra Data Services Platform

22. What do the depth datasets show? Why are depth risks and extents smaller than the main dataset?

The present day risk shown for the main RoFRS and RoFSW datasets is the chance that any flooding could occur, regardless of depth.

The depth information for these datasets shows the chance that flooding will reach a given depth (e.g. chance of flooding of 60cm depth or greater).

In any location, the chance of flooding to a given depth decreases as the depth increases. So the chance of flooding to a depth of 60cm will be less than the chance of flooding to a depth of 20cm, however this might still fall in the same risk rating, e.g. medium.

As an example, a location that has a low chance of flooding to a depth of 10cm would be shown at risk on the extent maps. But it might have a very low chance of deeper flooding to a depth of 20cm, and so would not be shown at risk on the 20cm depth maps.

23. Why have you published flood risk maps accounting for climate change? How do you know that my flood risk will increase / change because of climate change?

An answer to this question can be found in the briefing note: 'Understanding your future flood risk (January 2025)'.

24. Why does climate change mean that flood risk is increasing? How confident can we be about that?

An answer to these questions can be found in the briefing note: 'Understanding your future flood risk (January 2025)'.

25. When will flood risk change due to climate change?

An answer to these questions can be found in the briefing note: 'Understanding your future flood risk (January 2025)'.

26. How have climate change maps been created? What climate change scenarios will be published? How did you decide on these? What assumptions have you made about future climate?

An answer to these questions can be found in the briefing note: 'Understanding your future flood risk (January 2025)'.

27. Why are you using higher central allowances for sea flooding and coastal erosion, and central allowances for rivers and surface water?

We use the recommended allowances as defined by our existing Flood risk assessments: climate change allowances - GOV.UK.

Higher allowances are recommended for sea flood risk compared to river flood risk because of significant uncertainties in climate science for future sea level rise. This includes difficulties in modelling ice sheet melt.

Sea level rise is expected to continue well beyond 2100, so planning for greater sea level rise will increase our long-term resilience.

28. Why is climate change and depth data not available for my location?

We have published national maps showing our best understanding of the risk of flooding as a result of climate change for the first time. It is also the first time that we have published depth data for risk of flooding from rivers and sea.

This is a big undertaking and is only the start of the journey. In some locations, we are not yet confident enough in the data, and we want to ensure it is right before we publish, so for these locations the future risk and depth data are not visible at this stage. We will be adding this information as we update the data and expect to publish climate change and depth data for all locations by Summer 2026.

29. What is surface water flooding, and why is it important?

Surface water flooding occurs when intense rainfall overwhelms drainage systems, causing water to flow across the land. This type of flooding can happen quickly, particularly in urban areas with impermeable surfaces. Surface water information is important as surface water flood risk is increasing, especially in cities where drainage systems can struggle to cope with heavy rain.

30. How has the new surface water flooding data improved risk assessments?

The publication of updated surface water flooding data provides a more complete view of flood risks. It helps authorities identify areas vulnerable to flash flooding caused by heavy rainfall to inform local emergency response plans. This data is also essential for urban planners, emergency services, and infrastructure developers.

For example, SFRAs can now use the most up to date surface water risk maps, prepared using state of the art modelling software, improved modelling techniques and latest background data (rainfall, topography).

The new maps can inform investment planning and decisions, including identification of areas suitable for implementing SuDS or surface water storage areas.

They can also be used to help create and update surface water plans and local flood risk strategies.

31. What information on the surface water flood risk mapping do you provide to members of the public?

We have published public facing-guidance on understanding and using the Risk of Flooding from Surface Water maps on gov.uk.

This may also be useful as an overview for RMA staff, who may wish to direct customers to it.

32. Where can I access the Surface Water data shown on Flood map for planning - GOV.UK?

The surface water extents information available on the Flood map for planning - GOV.UK service can be accessed from the Defra Data Services Platform here: Risk of Flooding from Surface Water

It should be noted that the depth information available with the Risk of Flooding from Surface Water dataset is not structured in a way that is suitable for planning purposes, as it describes the chance of flooding to a given depth, rather than the depth of flooding expected in the flood events considered through planning.

33. Why is the Risk of Flooding from Surface Water (RoFSW) dataset described as 4 band in some places, when it only has 3 bands?

For RoFSW, as we are only displaying high, medium and low risk categories, it is referred to in the guidance as a 3-band product. This is because reference to 4-band can be confusing when ‘Very Low’ isn’t shown in the product.

34. Will the Environment Agency provide a new ‘Risk of Flooding from Multiple Sources’ dataset?

In the short term, NaFRA2 will not provide a ‘Risk of flooding from multiple sources’ (RoFMS) dataset.

Our existing RoFMS dataset is outdated and will be retired. It was published in 2016 and has not been updated. It was produced in response to a Memorandum of Understanding with the insurance industry, combining our ‘Risk of flooding from rivers and sea’ (RoFRS) and ‘Risk of flooding from surface water’ (RoFSW) datasets of the time.

In the longer term, we hope to publish a new RoFMS dataset. NaFRA2 will make it much easier to create and maintain RoFMS, as RoFRS and RoFSW will be generated from a single system in a consistent manner.

35. What is the impact of the new national flood risk assessment on reservoir flood maps?

The new national flood risk assessment is improving our understanding of river, sea and surface water flood risk only. The improvement of reservoir inundation maps is managed separately through the national FCRM Reservoir Safety team. This information will continue to sit alongside reservoir information on our digital services.

36. What is the impact of the new national flood risk assessment on groundwater flood risk information?

The new national flood risk assessment does not currently assess flood risk from groundwater. There are no immediate plans to undertake a national assessment of groundwater flood risk.

Our long-term ambition is for modelling to represent all sources of flooding together. There are unique technical and strategic challenges relating to groundwater flood risk, and more work is required to scope out what might be possible.

37. What is the annual chance of flooding for areas shown as Very Low risk in the Risk of Flooding from Rivers and Sea (RoFRS)? Why are all ‘very low risk’ areas not mapped as very low risk?

In areas categorised at Very Low risk, the annual chance of flooding is less than 1 in 1000.

Where areas could flood as a result of asset failure, but the annual chance of flooding is less than 1 in 1000, these areas are mapped as Very Low.

Other areas not at Low, Medium and High risk of flooding are still defined by the Environment Agency as at “Very Low” risk, whether or not they are marked as such in our mapping.

38. Why have you changed from a 50m to a 2m grid? Will a 50m resolution dataset be available in the future?

We have updated the Risk of Flooding from Rivers and Sea (RoFRS) dataset as part of our new national flood risk assessment. This has led to significant improvements to our flood risk information, including improving the resolution of RoFRS. The new 2-metre resolution has been enabled by much-improved national modelling of flood risk, and a new way of integrating national modelling with detailed local modelling. This provides us with a much more detailed understanding of flood risk.

We have no plans to produce a version at 50 metre resolution. We know that the new, more detailed data comes with bigger file sizes which can present challenges for some users. We have provided this FAQ to assist users in downloading large data sizes: Defra Data Services Platform.

39. Why can’t I zoom further into the data on Check Your Long Term Flood Risk (CYLTFR)?

Although the data produced by our new national flood risk assessment is primarily of a much improved spatial resolution of 2m, we are unable to increase the zoom scale on the CYLTFR service due to licensing of the Ordnance Survey base mapping used.

NaFRA2 and NNM methodology

The methods documents below are available to help local authority and Environment Agency staff understand in more detail how the new data has been created. The documents cover general NaFRA2 methods that apply to the Risk of Flooding from Rivers and Sea (RoFRS), Risk of Flooding from Surface Water (RoFSW) datasets and the new data on Flood Map for Planning. **These documents can be found on our SharePoint site.**

- Overview of NaFRA2 methods for national flood risk products, setting out the main processing steps common to all our flood risk maps.
- New National Modelling Project Report **and Product Definition Document**, including input data (e.g. Digital Terrain Mode), model setup and outputs.
- How local models and the NNM are used in the NaFRA2 system to generate NaFRA2 outputs, covering topics in more detail including interpolation, indexing and extent-to-grid conversion.

Please note that these documents were produced for an Environment Agency audience - they include some Environment Agency internal SharePoint links and context familiar to Environment Agency staff rather than external stakeholders.

Please contact **fcrm_risk_assessment@environment-agency.gov.uk** if you have questions.

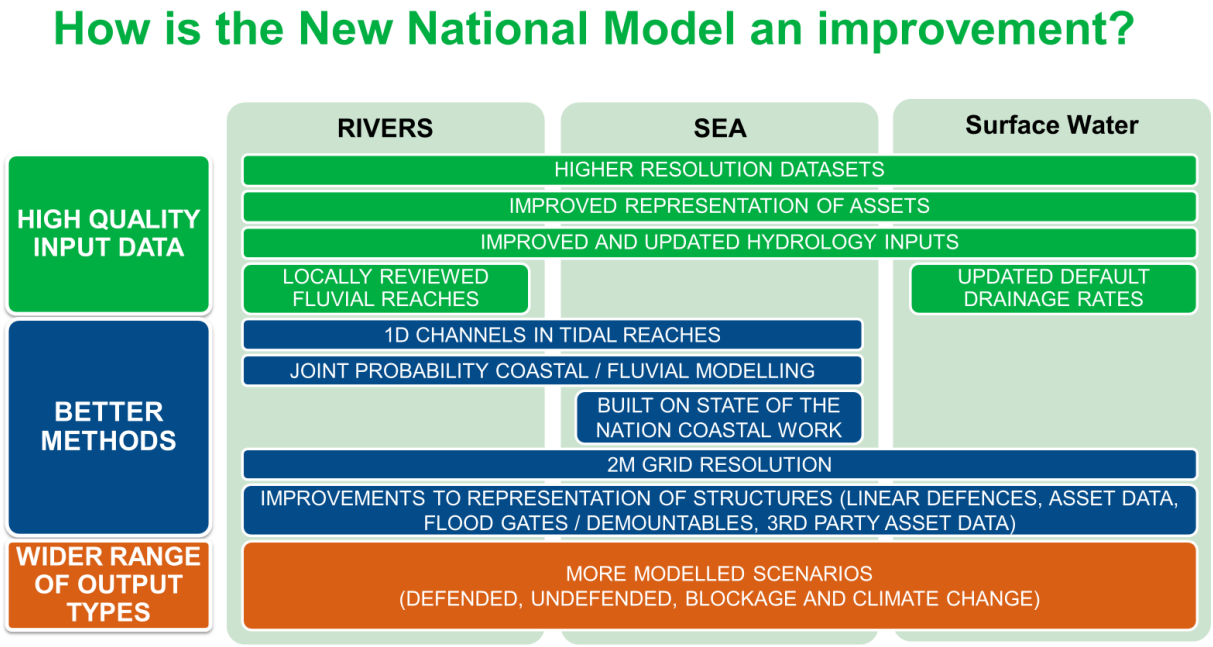
40. How does NaFRA2 work? What are the guiding principles?

Please see Overview of NaFRA2 methods for national flood risk products

41. What is the New National Modelling (NNM)?

Please see Overview of NaFRA2 methods for national flood risk products

The slide below shows some of the key improvements that the NNM brings compared to previous national modelling:



42. How will the NNM be accessed? Will we publish the NNM? How do we respond to requests for NNM data?

There are no plans to publish the NNM outputs separately to NaFRA2 outputs, as it was designed as an input dataset to NaFRA2. Work was prioritised on the NNM based on the requirements for NaFRA2 and taking into account other modelling available.

Updates to the NNM may be used for future improvements to NaFRA2 outputs.

Rather than publishing NNM outputs as a separate product, NaFRA2 generates outputs from the best available modelling, whether that's local or national or a combination. This is more helpful for customers than providing NNM outputs in places where the NNM outputs are not the best available information.

We plan to make banded depth data for the Rivers and Sea defended and undefended risk datasets (both present day and climate change) available, initially only where data has originated from the national model. Please see Question 100 for further details of this.

43. Has the presence of local drainage infrastructure been accounted for in the NNM?

Yes it has. Explicitly via the inclusion of culverts that allow drainage from one area of land to another where appropriate; and implicitly through the use of a "drainage layer" that is used to approximate the capacity of local drainage networks to absorb runoff in an event before becoming overwhelmed.

This approach remains the most appropriate for national scale surface water mapping. More detailed and explicit modelling of subsurface drainage infrastructure may be included in LLFA surface water models.

44. Which scenarios have been run for the New National Model and how are they used by NaFRA2?

Model simulations have been run for the following annual exceedance probabilities (AEPs) for both the defended and undefended model setup (for fluvial and coastal) and drained scenario (for surface water):

- Present Day: 1 in 5 (20% AEP), 1 in 20 (5%), 1 in 30 (3.33%), 1 in 100 (1%), 1 in 200 (0.5%), 1 in 1,000 (0.1%)
- Climate change:
    - Coastal
        - Higher Central (2125 Epoch): 1 in 1,000 (0.1%)

        - H++ (2125 Epoch): 1 in 1000 (0.1%)
    - Fluvial
        - Upper End Climate Change (2080 Epoch): 1 in 1,000 (0.1%)
        - Reasonable Upper Limit (x2.66): 1 in 1,000 (0.1%)
    - Surface water
        - Climate Change +20%: 1 in 1,000 (0.1%)
        - Climate Change +60%: 1 in 1,000 (0.1%)

For surface water, the Present Day 1 in 1,000 (0.1%) annual exceedance probability (AEP) undrained scenario has also been run.

The NNM outputs are used where no local modelling exists, where there isn't a local model of good enough quality (and the NNM is higher quality) or where it can supplement the local modelling. It also has other specific uses in the Risk of Flooding from Rivers and Sea (RoFRS) product.

45. What modelling software has been used within the New National Model and why?

The primary modelling software used in the New National Model is JFLOW, a 2D hydraulic model with limited 1D elements. This was chosen to balance the needs for high quality outputs whilst still being scalable for national modelling.

46. What coastal datasets have been used as input data?

There are many input datasets used in the creation of the NNM coastal modelling, but the two key ones are:

- the wave overtopping boundary dataset – this is based on data compiled with input from coastal authorities as part of the State of the Nation (SoN) project, which has been updated where necessary with extra annual exceedance probabilities and new defences
- the NTLD (National tidal loading database) which was created as the key tidal input

47. How have climate change outputs been created? Which allowances have been used? Will we be able to update the outputs for new Climate Change Projections?

Climate change outputs have been created in a similar way to present-day outputs, but using modelling that corresponds to river flow, rainfall and sea levels from climate change allowances. These climate change allowances are based on UKCP18

projections. More information on how this is done can be found in this methods document: NaFRA2 methods - Overview of methods for national products.docx.

The allowances we have used are listed on the Defra Data Services Platform: https://environment.data.gov.uk/support/announcements/569147407/568590338.

NaFRA2 will help us to update our outputs for new climate change allowances in the future. The indexing and interpolation functions means that NaFRA2 could create a map for any specified values of river flow, rainfall or sea level, by finding the relevant outputs in its model catalogue and interpolating where needed. More details on interpolation and indexing can be found in this methods document: NaFRA2 methods - How local models and the NNM are used in the NaFRA2 system.docx.

48. Are local model outputs used for national climate change products?

As for any modelled scenario, local models can be used directly for the climate change products if the appropriate scenarios exist. It is also possible that they will be used more indirectly, in combination with the new national modelling, through some of the NaFRA2 system processing tools. The following options are possible to create the climate change products:

- Direct from local model outputs if the appropriate scenario exists
- Indirectly from the local model outputs, derived from other local and/or national model output scenarios, with the NaFRA2 scenario tools interpolating between other outputs.
- Direct from national model outputs if the appropriate scenario exists from the NNM but there is no local modelling.

The NaFRA2 system catalogues modelled scenarios by using physical characteristics, known as “index values”, which are fluvial flow, sea level or rainfall depth. It can therefore identify whether an appropriate output exists by looking at the availability of outputs relating to a particular indexing value rather than the actual modelled scenario. This is particularly important for climate change outputs as guidance on which outputs to produce changes over time.

49. What river flow and rainfall conditions are used for the NNM and why?

River flow and rainfall conditions used in the New National Model have been calculated using industry standard methods and data for flood frequency estimation

in the UK. Guidance on these and how to apply them can be found here Estimate flood flow from rainfall and river flow data (source) - GOV.UK.

Peak flows used to model river flooding in the New National Model, were calculated using the FEH improved statistical method, using version 9 of the National River Flow archive (NRFA) peak flow dataset (Peak Flow Dataset | National River Flow Archive), and using FEH catchment descriptors available from the FEH webservice Home Page - FEH Web Service. Hydrograph durations are calculated using the FEH catchment descriptors, and hydrograph shapes using the ReFH model (v1).

Rainfall depths used in modelling surface water flooding in the New National Model are from the FEH13 DDF model, and 3 rainfall durations have been modelled: 1 hour, 6 hour and 18 hours. We are unable to share the rainfall depths used externally under the terms of our licence with CEH, however they can be accessed through the FEH Web Service Home Page - FEH Web Service.

50. Have you modelled all areas at risk of flooding or is there a minimum catchment size?

NaFRA2 uses local flood risk models where they exist and there is no specific minimum catchment size for these.

For our national scale modelling there is a limit to what can be modelled due to data and technology limitations, and practical constraints. We need to set a minimum catchment size for this reason. The New National Model has a minimum catchment size of 3km^2 which means we're able to model some smaller watercourses than we have previously been able to do.

Note that there are some exceptions to this:

- in some cases, we may also have ordinary watercourses with a catchment <3km^2 which were viewed locally as having an impact on flood risk important to include, and these have been included by modelling using the same simple techniques used to model surface water risk where necessary.
- we may in some limited instances have opted not to model an apparent watercourse even though it has a catchment >3km^2 - for example, if it was confirmed locally that there is no recognised watercourse at that location.

While our understanding of risk has improved, we know that some customers may wish to query why their area is now shown to be at risk. In these areas, it's important to emphasise that that this is our new best understanding of flood risk in their area – the risk was always there but we now have been able to assess that risk. It is a good thing to know the risk exists as it will allow us and the public to mitigate it in future.

This change in minimum catchment size also does not mean that designation of ‘main rivers’ has changed – this is independent of our decisions over which watercourses to include in the modelling.

Areas with smaller catchments are included in our surface water flood mapping, which is likely to pick up the flow route of, say, an ordinary watercourse with a catchment area of 2km^2 which might be excluded from our river and sea mapping.

51. How have buildings been accounted for in modelling and in the mapping products?

For further details on this and the methods used for NaFRA2, please see: NaFRA2 methods - Overview of methods for national products.docx

52. Will you update the Risk of Flooding from Surface Water maps to take account of SuDS?

SuDS are extremely important for managing flood risk, particularly from surface water. The surface water flood mapping takes account of existing flood mitigation. LLFAs were invited to share any local information around drainage rates when the new national modelling was under development, to let us know of areas with particularly effective or particularly poor drainage.

LLFAs are also invited to share local detailed mapping with for inclusion in the published surface water maps on an ongoing basis. These should take any SuDS into account, though it's important that they recognise that SuDS show limited benefits in, for example, the 1 in 1000 chance flood. LLFAs are only likely to be able to take account of SuDS in their local models where they have details of the SuDS design and operation standards, and confidence that SuDS maintenance arrangements are in place.

National Coastal Erosion Risk Map

Overview of NCERM

54. What is the National Coastal Erosion Risk Map (NCERM)?

The National Coastal Erosion Risk Map provides the best available national information on coastal erosion risk and will be used by coastal risk management authorities and the Environment Agency to inform coastal management investment and local planning decisions.

The map includes coastal erosion projections for England through this century and provides an updated assessment of residential and non-residential properties at risk. It also takes into account the latest coastal management approaches set out in Shoreline Management Plans (SMPs).

55. Why have we produced a new National Coastal Erosion Risk Map?

The full National Coastal Erosion Risk Map dataset has been updated based on a further 10 years of coastal monitoring data and the latest climate change evidence.

The Environment Agency is required to update our understanding of current and future flood and coastal erosion risk as part of our 'Strategic Overview' role. One of our key public commitments in the FCERM Strategy and Roadmap to 2026 was "Between now and 2025 the Environment Agency will have better evidence to inform future risk and investment needs for managing all sources of flooding and coastal change".

As part of this, in January 2025 we published 2 significant improvements in mapping and communicating our flood and coastal erosion risk information:

- A new National Flood Risk Assessment (NaFRA2)
- A new National Coastal Erosion Risk Map (NCERM2)
-

56. Where is NCERM2 published?

In January 2025, NCERM2 was published on SMP Explorer and accessible from gov.uk on Check Coastal Erosion Risk for an Area in England.

A summary of the NCERM2 and NaFRA2 data was also published in a report titled 'National assessment of flood and coastal erosion risk in England 2024' in December 2024.

57. How can I provide feedback on the NCERM data or map?

You can report issues and provide feedback about the site or ask a question via the “contact us” link at the bottom of any of the pages when in SMP Explorer. If you are unable to load the site, you can raise the issue directly via the support page on the Data Services Platform.

58. How are challenges to the NCERM data or methods handled?

All challenges to NCERM data and methods will be handled by the Environment Agency.

To challenge the data or provide new evidence you can email FCRM_Risk_Assessment@environment-agency.gov.uk

Any evidence submitted to the Environment Agency will be verified by the Environment Agency and the relevant local authority before being included in scheduled updates. This process may take several months before a new map is published. Restrictions on data quality will apply.

59. What is different between NCERM1 and NCERM2?

Extensive coastal data sets for England have been gathered since the publication of the NCERM in 2012.

The new national coastal erosion risk information uses an extra 10 years’ worth of coastal data and new methods to provide more reliable erosion projections; shows the coastal erosion risk information in a more visual mapped format and includes erosion projections with climate change. Like the previous national coastal erosion risk map, it will be publicly accessible to encourage wider understanding of coastal erosion risk.

Managing coastal erosion

60. What is coastal erosion?

Coastal erosion is a natural process which leads to the loss and movement of soil, sand and bedrock to the sea. Coastal erosion can be influenced by human activity and by climate change.

The type of erosion and its impact varies depending on local geology and coastal processes. Two important processes are:

- tides, waves and storms can erode rocks, cliffs, beaches, dunes and marshes

- rainfall, groundwater and the sea can make the ground unstable and lead to landslides and slumps

61. What is the role of the Environment Agency in managing coastal erosion?

The Environment Agency has a strategic overview of the management of all sources of flooding and coastal change and is the lead authority for managing the risk of flooding from estuaries and the sea. On the coast, the Environment Agency focuses on supporting local authorities in:

- planning for and managing coastal erosion
- development on the coast and long-term plans to manage risk by sharing data and providing guidance
- allocating and assuring government funding for flood and coastal erosion risk management (Grant in Aid)

The Environment Agency's National Flood and Coastal Erosion Risk Management Strategy for England sets out how risk management authorities, partners and communities can help ensure we are ready for, and resilient to, flooding and coastal change now and throughout the 21st century. The Strategy includes specific actions to update and maintain the national coastal erosion risk map.

62. What is the role of local unitary, district and borough councils in managing coastal erosion?

Local unitary, district and borough councils take the lead in managing coastal erosion. They have powers to do this under the Coast Protection Act 1949 as Coast Protection Authorities, which enables them to access government funding for flood and coastal erosion risk management (Grant in Aid). They may also work with communities where protection measures are not technically possible or affordable or may be environmentally damaging.

Local authorities cannot access government funding under these permissive powers if erosion is driven only by rainfall and groundwater. Further information about this is provided in the National Guidance on Assessment of Coastal Erosion and Landsliding for the Funding of Coastal Risk Management Projects.

63. What is the role of landowners in managing coastal erosion?

Landowners may choose to take action to manage coastal erosion on their land. However, doing so may be subject to obtaining the necessary permissions such as

- planning permission from the local planning authority,

- a marine licence from the Marine Management Organisation
- a Flood Risk Activity Permit from the Environment Agency
- a consent under the Coast Protection Act 1949

64. How is coastal erosion managed?

Coastal defences such as sea walls, groynes and rock revetments can limit erosion. Even with defences in place, there can still be a risk of erosion during large storms. Some defences may only slow erosion rather than stop it entirely. In some places, this can give time for communities benefiting from the defences to adapt and move property and infrastructure away from the eroding coastal edge.

Coastal defences may stop or slow sediment transport along the shoreline. This may affect the amount of sediment available to maintain nearby beaches or other natural defences. Defences may also increase erosion in adjacent areas where the sea scours along the edge, so they need to be planned in accordance with what is set out in the location's Shoreline Management Plan (SMP). You can find out more and view Shoreline Management Plans on Shoreline Management Plan Explorer.

65. What support is available to help those at risk of coastal erosion?

The national coastal erosion risk map provides information to help people understand how the coast is changing. It also helps coastal managers and planners make decisions on investment and planning at the coast. The flood and coastal erosion risk management investment programme provides funding to the Environment Agency and local authorities to manage coastal erosion and better protect properties from coastal erosion where it is appropriate to do so. It also includes specific programme funds to help local authorities plan and trial adaptation and community resilience measures, such as rolling property back to a safer location and adapting community infrastructure to be able to cope with coastal change. The Environment Agency's Coastal Transition Accelerator Programme is providing funding to 4 local authorities in the East Riding of Yorkshire, North Norfolk, Dorset and Cornwall.

Where properties are likely to be lost to coastal erosion, the local authority can apply for a Coastal Erosion Assistance Grant to contribute towards the costs of property demolition and removal.

NCERM2 data and methodology

66. What data is used to create NCERM2 erosion projections?

Producing the national coastal erosion risk map involves processing large amounts of data. Some local authorities have routinely monitored coastal erosion for many years. The Environment Agency also monitors coastal processes to help understand and manage flood risk from the sea and estuaries.

Six regional coastal monitoring programmes are led by coastal authorities and the Environment Agency, and co-ordinated nationally at the National Oceanographic Centre. The data collected by the programmes includes:

- coastal defence location and condition
- beach profiles
- bathymetry
- real time tide and wave data
- aerial photography
- Light Detection and Ranging (LiDAR)
- coastal habitats

Combined with Ordnance Survey mapping and local monitoring of historical coastal erosion, this provides a consistent basis for identifying, improving or verifying important parameters.

This information provides a comprehensive picture of how the coast is changing and informs our understanding and management of coastal flood and erosion risk.

74. What timescales are the erosion projections shown for?

You can view the erosion projections under each of the management and climate scenarios for two points in the future:

- from now to 2055
- from now to 2105

These timescales are the same ones used in the SMPs.

75. What management scenarios are shown?

Erosion risk zones are shown for two management scenarios:

- No Future Intervention - if there was no future work to maintain or build coastal defences, therefore allowing them to fail over time and erosion to occur
- With Shoreline Management Plans (SMPs) delivered - if the current intention to manage the coastline is followed and funded.

Any changes to management approaches in SMPs in the future may affect the erosion projections, and the map will be updated where this is the case.

76. What has been included in the receptor analysis?

The receptors at risk of erosion analysis focused on residential and non-residential property counts. In addition, we assessed:

- property damages
- critical infrastructure
- road
- rail
- landfill
- agricultural land
- Sites of Special Scientific Interest (SSSIs)
- scheduled monuments

77. What is included as a 'residential property'?

The Environment Agency uses classifications within the National Receptors Dataset to determine if a property is residential. These include:

- houses
- flats
- caravans

78. What is included as a non-residential property?

The Environment Agency uses classifications within the National Receptors Dataset to determine if a property is non-residential. These include any property that is not classed as being residential and covers a wide range of property types including:

- businesses
- hospitals
- public buildings and services
- industrial and recreational premises

79. Are coastal landslides included in NCERM?

Coastal landslides are included in NCERM depending upon their classification. Areas of complex geology are assessed as Ground Instability Zones with unique causes

and effects relating to their geology and the environmental factors influencing their movement. These are not included within the NCERM projections for future years but are mapped as areas of potential ground instability risk.

All other types of landslides are included in the erosion projections for the years 2055 and 2105 under the NCERM management and climate scenarios.

80. How accurate are the erosion projections?

The national coastal erosion risk map provides our best estimate of coastal erosion risk at a national scale. It uses the best available national and local data along with methods which can be applied at a national scale. Site specific local assessments of coastal erosion risk may provide greater detail and confidence, and these have been used where available.

The erosion projections are provided to the nearest metre. These measurements are used to create the erosion risk zone but should not be used as a precise indication of shoreline position or timing of risk to individual properties or areas of land.

Due to the complexity of the coast and the forces acting upon it there are uncertainties involved in creating erosion projections. These uncertainties increase over time. We have assessed the reliability of the different input data and methods applied in each location.

81. Why are there some areas where no erosion data is shown?

NCERM mapping shows the primary source of risk. If erosion is the dominant risk then erosion risk will be shown. If flooding is the dominant risk then erosion risk will not be shown.

If you have a floodable frontage in your area, there will be a link on the map to take you to the flood data.

82. Do other sources of coastal erosion information exist?

Some local authorities have routinely monitored coastal erosion for many years. This helps improve their understanding of when and how to manage the coast, including:

- where they may need to protect existing property or infrastructure
- where to avoid further development
- where not to intervene and allow the coast to change naturally

This monitoring information has been included in the analysis for NCERM, and this will continue as NCERM is updated into the future. However, some modelling approaches are not suitable for a national assessment, and in some localities local authorities may have more detailed information about erosion events and rates.

83. What are climate change scenarios and why are we using them?

NCERM uses climate change scenarios to show the possible impact of rising sea levels on the erosion projections. This helps the public, planners and coastal managers to make decisions with an improved understanding of potential impacts of climate change in mind. This can be especially important for local planning decisions.

It uses the same sea level rise allowances which apply to our flood risk assessment guidance. Those allowances were chosen for their representation of sea level rise using the UK Climate Projections 2018 Representative Concentration Pathway (RCP) 8.5 to represent a 4^{o}C increase in global temperature by the 2100s.

In line with our precautionary approach for planning and development, erosion risk zones are shown for three **climate change scenarios:**

- **Present Day (2020)** – This scenario uses historical erosion rates to provide future projections without calculating any additional impacts of climate change and rising sea levels. The year 2020 is taken as the baseline year for the erosion projections.
- **Climate Change Higher Central** – This scenario uses sea level rise data from the 70th percentile UKCP18 Representative Concentration Pathway (RCP) 8.5 climate projection.
- **Climate Change Upper End** – This scenario uses sea level rise data from the 95th percentile UKCP18 Representative Concentration Pathway (RCP) 8.5 climate projection.

84. When will the NCERM2 data next be reviewed and updated?

The national coastal erosion risk mapping will be updated annually from 2026.

Using NCERM2 data

85. Will the new NCERM2 data have any impact on people's ability to get home insurance?

Home insurance for erosion is not generally available so the new national coastal erosion risk map is unlikely to have a direct impact.

Home insurance for landslides/ground instability is available. The main areas of ground instability on the English coast which are now displayed on the new map are already well-known.

86. Does an indicated erosion risk make it difficult to get a mortgage or sell a house?

The national coastal erosion risk map shows erosion projections up to 2105 under a range of management and climate scenarios. It does not show the expected coastline position but a zone within which erosion is expected to occur. The information is not designed or intended for assessment of risk to individual properties.

However, it can be beneficial in conveyancing transactions, alongside the usual pre-contract searches and enquiries, for estate agents and mortgage providers and those seeking to buy or sell property in a coastal area to improve their understanding of the coastal erosion risk to the area within which a property or properties sit.

87. How should Local Plans and supporting evidence documents be updated in light of NCERM2 information?

The Government's National Planning Policy Framework sets out that Local Plans need to take account of climate change, flooding and coastal change. It is supported by guidance on planning and development in areas of coastal change.

Local Plans should identify Coastal Change Management Areas (CCMAs) in locations likely to be affected by physical changes to the coast. Local Planning Authorities (LPAs) will need to demonstrate they have considered SMPs when defining CCMAs.

The national coastal erosion risk map provides evidence to support this process, but there may also be important local information. Even where the SMP approach is to continue defending, LPAs need to consider how this approach may be secured. They should also consider any remaining risk from landslip behind defences. Where needed, they should seek advice from the Environment Agency or the Coast Protection Authority in areas of coastal change.

Local Plans should set out policies that plan for coastal change, such as on:

- the type, scale and permanence of development that may be permitted in areas at risk
- the relocation of properties and infrastructure out of areas at risk

LPAs are required to produce a Strategic Flood Risk Assessment (SFRA) to inform the preparation of their Local Plan. Environment Agency guidance on preparing a SFRA states that the potential impact of coastal erosion on flood risk should be assessed. When development is proposed in areas at risk of coastal change, applicants may be expected to undertake a coastal change vulnerability assessment. This assessment should demonstrate how policy requirements on coastal change can be met.

Local Plans should also set out expectations for developer contributions including for necessary infrastructure. This could include contributions to the construction, improvement or maintenance of relevant flood and coastal defences, set out in SMPs. It could also include contributions to emergency planning provision in relation to coastal risk.

88. How should NCERM2 information be used alongside other coastal change evidence in developing Local Plans?

NCERM incorporates local data on erosion but in some locations local data and modelling may be more detailed, for example by providing greater spatial resolution. Where this is the case, the local information should be used with the national coastal erosion risk map to enhance the justification for the approaches set out in the Local Plan. The existence of local studies does not remove the need to use the information provided by NCERM.

89. What types of development are likely to be appropriate in the areas identified at coastal erosion risk?

The government's National Planning Policy Framework sets out that Local Plans need to take account of climate change, flooding and coastal change. It is supported by guidance on planning and development in areas of coastal change. Local Plans should:

identify Coastal Change Management Areas (CCMAs) in locations likely to be affected by physical changes to the coast.

Be clear as to what development will be appropriate in such areas and in what circumstances

Make provision for development and infrastructure that needs to be relocated away from CCMA.

Local Planning Authorities (LPAs) will need to demonstrate they have considered SMPs when defining CCMAs. The NPPF includes general policy tests when considering development in CCMAs. More information on what development may be suitable in an area at risk from coastal change is provided in Paragraph 073 of the Flood risk and coastal change - GOV.UK planning practice guidance.

If CCMAs are designed using the 'With SMPs Delivered' scenario and 'Present Day' climate allowance, Local Planning Authorities should consider the residual risks from SMP management approaches being changed or unfunded and from the erosion projections derived from climate change allowances provided in NCERM. Where CCMAs have not been designated, it is expected that Local Plans, supported by appropriate evidence, will still need to provide an assessment and guidance on the types of development that may be appropriate in areas that could be affected by coastal change.

90. What should local planning authorities (LPAs) do if the coastal erosion risk in an area has increased, affecting planning decisions that have been made or are live?

LPAs will be able to use the new NCERM to inform planning decisions from 28 January 2025. Where an increase in erosion risk has been identified, this may affect the outcome of a planning decision pending approval at the time of publication. This may mean granting permission with extra conditions as to the type, location or lifespan of the development, or refusing permission in areas considered to be at higher risk.

In more exceptional circumstances, Local Planning Authorities have powers (section 97 of the Town and Country Planning Act 1990) to revoke or modify planning permission already granted, although developers may be entitled to compensation.

LPAs should take a risk-based approach to deciding whether further assessment or changes to CCMA designations, policies or allocations are needed in light of our new coastal erosion risk evidence and the SMP. This should take account of the nature and degree of change to our understanding of erosion risk. LPAs can speak to local Environment Agency staff or the Coast Protection Authority about the need to update Local Plans and associated evidence.

91. Are local planning authorities (LPAs) expected to use NCERM information to designate Coastal Change Management Areas?

Yes – new NCERM information updates the erosion information provided in the SMPs published between 2006 and 2012 and should be used to inform CCMA

designations along with other information on SMP Explorer and any further local studies considered appropriate by the relevant Coast Protection Authority.

The government's National Planning Policy Framework sets out that Local Plans need to take account of climate change, flooding and coastal change. It is supported by guidance on planning and development in areas of coastal change.

Local Plans should identify Coastal Change Management Areas (CCMAs) in locations likely to be affected by physical changes to the coast. Local Planning Authorities (LPAs) will need to demonstrate they have considered SMPs when defining CCMAs.

Flood Map for Planning

Planned updates to Flood Map for Planning in May 2026

92. What changes are we making to the Flood Map for Planning in May 2026?

In May 2026, we plan to publish more detailed surface water flood information on our Flood Map for Planning to help enable sustainable development, ensuring the right development in the right places. This will make it easier for local authorities and developers to understand the level of flood risk from surface water. It will also help inform decisions about the location and design of new development; ensuring it will be safe and resilient throughout its expected lifetime. Our target date is currently **28 May 2026**.

We will add new surface water flood risk extents which account for climate change. We will also add banded depth information for surface water. These new layers will also be available on the DSP:

- Flood Map for Planning – Surface Water Spatial Planning Extents - Climate Change extents - [link will be added here when they are available]
- Flood Map for Planning – Surface Water Spatial Planning Depths – Climate Change - [link will be added here when they are available]
- Flood Map for Planning – Surface Water Spatial Planning Extents – Present Day - [link will be added here when they are available]
- Flood Map for Planning – Surface Water Spatial Planning Depths – Present Day - [link will be added here when they are available]

The Flood Zones and existing present day surface water flood risk extents will be unchanged by this update.

93. What does this new information mean for the use of the surface water climate change and depth information shown on the Check your long term flood risk service?

Surface water climate change and depth information designed for use in spatial planning has to-date been absent. We previously advised that the datasets hosted on the Check your long term flood risk (CYLTFR) service may help to inform the preparation of flood risk assessments, but made clear that the climate change and depth information provided fell short of planning requirements in several important respects.

Upon publication of these new surface water datasets on the Flood Map for Planning we therefore recommend that you remove the CYLTFR surface water datasets from the GIS tools you use for development planning. For the avoidance of doubt, the layers you will need to remove and stop using for development planning are:

- Risk of flooding from surface water – present day extents and depths
- Risk of flooding from surface water – climate change extents and depths

94. How will the new surface water datasets be used in planning?

The new datasets will provide enhanced benefits to both local authorities and developers, including:

- They can be used to identify the need for and to inform the carrying out of:
    - A site-specific flood risk assessment
    - The sequential test (exemptions may apply)
- They can help inform the design of sustainable drainage systems.
- They can inform preparation of strategic flood risk assessments making them easier to prepare and helping identify suitable sites for growth.
- We will be hosting more of our flood risk information in one place, making it easier to access.
- They will provide greater parity between the information available on river, sea and surface water flood risk.
- They will enable quicker decision making on the location and design of new development.

We will be updating our guidance to explain how the new datasets have been produced and to support how planners and developers can use them.

95. How and when should the new surface water datasets be used in planning? Are there transitional arrangements for live applications?

You should add the new surface water flood risk datasets to the GIS tools you use for development planning as soon as they are published. As before, we recommend the use of data feeds to ensure your tools always display the latest version of the layer.

You can start using the new surface water datasets straightaway. Local Planning Authorities will need to consider how to transition to the new datasets for live applications. This should include consideration of whether Lead Local Flood Authorities will need to be re-consulted in cases where they have already provided advice. We recommend that Local Planning Authorities and Lead Local Flood

Authorities consider discussing and agreeing transitional arrangements in advance of publication.

In some cases, for example where a site not previously at risk now lies within a flood risk area, the new datasets may trigger a new requirement for a flood risk assessment and sequential test (exemptions apply). In other cases, the new datasets may trigger the need for applicants to update existing flood risk assessments, sequential tests or sustainable drainage system designs. Please note that statutory consultation arrangements with Lead Local Flood Authorities on major development have not changed.

The Environment Agency is not a statutory consultee on surface water flood risk. Our flood risk advice will continue to be focused on river and sea flooding. The new surface water datasets do not need to trigger consultation or re-consultation with the Environment Agency. Local Planning Authorities should continue to follow the process set out in National Flood Risk Standing Advice for Local Planning Authorities to determine if the EA should be consulted.

It is important that users of any flood risk data always check that it is suitable for its intended use.

96. Do we plan to make the new datasets available to local planning authorities and lead local flood authorities ahead of publication?

No, we do not plan to make new datasets available in advance of planned publication.

97. What's the difference between the surface water datasets on Check your long term flood risk and Flood map for planning? Which datasets can be used for planning?

The present day surface water extents on FMfP and CYLTFR are identical. However, the climate change scenarios shown will differ in the following ways.

Digital service	Climate change scenario	Time horizon
Flood Map for Planning	Upper end (95th percentile)	2070s epoch (2061-2125)
Check your long term flood risk	Central (50th percentile)	2050s epoch (2040 to 2060)

We have previously explained that the surface water climate change scenario and time horizon used on CYLTFR, fall short of those needed for most planning proposals – as set out in our Flood risk assessment: climate change allowances.

We also explained that the depth information provided on CYLTFR did not provide appropriate information for use in planning, as it shows the chance of flooding to a

particular depth, rather than the depth of flooding expected in the scenarios relevant to planning decisions. However, in the absence of more suitable datasets, our previous advice was that the information could be used to inform flood risk assessments.

Now that we are adding more suitable climate change and banded depth information to FMfP, planners and developers will no longer need to utilise the surface water datasets on CYLTFR.

98. Which depth bands will be provided?

The Flood Map for Planning will show surface water flood risk depth bands for both present day and with climate change for the 3.3%, 1% and 0.1% AEP events.

The following depth bands will be provided:

- <150mm
- 150-300mm
- 300-600mm
- 600-900mm
- 900-1,200mm
- 1,200-2,300mm
- >2,300mm

The service will allow data to be filtered in several different ways.

99. How are we communicating this change?

We have provided a briefing note to local planning authorities and lead local flood authorities which aims to inform them about this change ahead of publication.

Further supporting guidance is, or will be, available from:

- Our SharePoint site for risk management authorities
- DSP Meta Data*
- How to use flood map for planning data*
- National flood risk standing advice for local planning authorities*
- How to prepare a strategic flood risk assessment*
- Product suitability diagram
- Guidance for developers and FRA consultants on the Town and Country Planning Association website and on Flood risk assessments: applying for planning permission*
- eLearning modules including ‘An introduction to sustainable drainage systems for planners’ available from the TCPA Learning Hub.

* Expected to be available from 28 May 2026

100. What future changes are we planning to make to the Flood Map for Planning service and datasets?

Our target date to implement this change to the FMfP is 28 May 2026.

We are also planning to make rivers and sea banded depth information available later in spring 2026, initially via the Defra Data Services Platform. This will only be in locations where depth information has been produced by our national model. Where suitable local detailed models are available, flood depth information is best accessed by requesting flood risk assessment data through the FMfP service.

We will provide more information in due course regarding if, when and how we may incorporate the information into the FMfP.

Please note that we continue to implement routine updates to the datasets already provided on FMfP. For instance the Flood Zones and Flood Zones plus climate change layers were subject to a data update in November - a further update is planned for 20 May 2026. It therefore remains important that users accessing these datasets via GIS tools, use data feeds or regularly check if updates are available. Doing so will ensure the best available information is always used.

Planned updates to Flood Map for Planning in August 2025

101. What changes are we making to the Flood for Planning in August 2025 and why?

In March 2025 we updated the Flood Map for Planning with new flood risk information. This included layers showing the possible effects of climate change on river and sea flood risk in the future.

Following publication, we have been receiving user feedback about the updated service. As a result of this feedback, we are planning changes to simplify the data shown on the service.

On **27 August 2025**, we plan to add a new layer called ‘Flood Zones plus climate change’. It will show how the combined extent of Flood Zones 2 and 3 could increase with climate change over the next century.

This new layer will be shown on the service instead of the following layers, which will be removed:

- Rivers and sea with defences (present day and with climate change) 3.3%, 1%/0.5% and 0.1% AEPs

- Rivers and sea without defences (present day and with climate change) 1%/0.5% and 0.1% AEPs

The ‘Flood Zones plus climate change’ layer will also be available on the DSP [we will add a link here as soon as it is published].

The Flood Zones and surface water flood risk information will remain unchanged.

102. Does the new ‘Flood Zones plus climate change’ layer change our understanding of flood risk? Will the August 2025 changes to the Flood Map for Planning affect live applications?

No. The new layer is a simplification of the rivers and sea defended/undefended layers that were published in March. We are not showing any new areas as being at risk of flooding which were not already identified as such by the information published in March. Live applications should already be accounting for the information published in March.

103. Will the August 2025 changes to the Flood Map for Planning affect strategic flood risk assessments?

The new ‘Flood Zones plus climate change’ layer should be used to help inform the preparation of Strategic Flood Risk Assessments. However, because the new layer is a simplification of the rivers and sea defended/undefended layers that were published in March, its publication will not trigger the need for SFRAs to be updated.

104. How and when should the new ‘Flood Zones plus climate change’ layer be used in planning?

You should add the ‘Flood Zones plus climate change’ layer to your GIS tools as soon as it is published. As before, we recommend the use of data feeds to ensure your tools always display the latest version of the layer.

You should start using the new ‘Flood Zones plus climate change’ layer straight away.

The new ‘Flood Zones plus climate change’ layer should be used to help identify the need for:

- A site-specific flood risk assessment
- The sequential test

The layer can also help to inform the preparation of strategic flood risk assessments.

The layer will need to be used alongside other more detailed information and assessments to inform how the sequential test, exception test, and site-specific flood risk assessments are carried out.

It is important that users of any flood risk data always check that it is suitable for its intended use.

105. Will the datasets being removed from the Flood Map for Planning still be available for use in planning?

The removed layers will still be available on the Defra Data Services Platform to help support further assessments and inform planning decisions. Existing data feeds will continue to work.

In some locations, the best outputs we hold are still only available from local models rather than our nationally created 'with/without defences' layers. These local model outputs remain available via our ‘Product 4s’, which can be requested through the Flood Map for Planning service.

As set out in our current guidance, it remains important that users check the suitability of our flood risk data before use.

106. How is the ‘Flood Zones plus climate change’ layer produced? Which climate change allowances are used to produce this layer? Have we produced separate climate change layers for Flood Zones 2 and 3?

The ‘Flood Zones plus climate change’ dataset shows how the combined extent of Flood Zones 2 and 3 could increase with climate change over the next century, ignoring the benefits of any existing flood defences.

The layer starts with Flood Zones 2 and 3 then adds the maximum extents from:

- Rivers and sea with defences (present day and with climate change) 3.3%, 1%/0.5% and 0.1% AEPs
- Rivers and sea without defences (present day and with climate change) 1%/0.5% and 0.1% AEPs

The extents are merged to create a single outline. There are not separate layers for Flood Zones 2 and 3.

We have assumed no changes to flood defences or land-use that could occur in future. The effects of climate change on flood risk we may see in the future could be different to those currently considered.

‘Flood zones plus climate change’ uses the following climate change allowances:

- peak river flow 'central' allowance, based on the 50th percentile for the 2080s epoch (2070 to 2125)
- sea and tidal flooding 'upper end' allowance to account for cumulative sea level rise to 2125, based on the 95th percentile

These have been taken from the Environment Agency's Flood risk assessment: climate change allowances

107. Does the removal of the 3.3% AEP rivers and sea with defences layer mean it can no longer be used to inform the designation of functional floodplain (Flood Zone 3b)?

The removed layer will still be available on the Defra Data Services Platform to help inform the designation of functional floodplain (Flood Zone 3b) in Strategic Flood Risk Assessments.

As set out in our How to prepare a SFRA guidance, you should always assess the suitability of these datasets for mapping functional floodplain in each location. You should also contact the Environment Agency to discuss and agree if they are suitable to include.

108. Why is the 'Flood Zones plus climate change' layer not available in some locations? What does 'climate change data unavailable' mean on Flood Map for Planning? How should applications for development be treated in areas marked 'climate change data unavailable'?

When we updated the Flood Map for Planning in March, we retained our existing Flood Zone information in some locations while we make improvements to our new data. We will not have 'Flood Zones plus climate change' information in these locations until the improvements have been made.

109. Why have we chosen the colour we have for the 'Flood Zones plus climate change' layer on the Flood Map for Planning?

We use special software and user-testing to ensure the design of the Flood Map for Planning is as accessible as possible, including to those with visual impairments. We have chosen the relevant colours and symbology as they were considered the most accessible.

Spatial Planning flood risk advice general information

110. What will NaFRA2 change for development planning?

New information was added to the Flood Map for Planning in March 2025 which will help planners and developers better account for flood risk in their decisions about the location and design of new development. The service will also look and feel different, with an interactive map allowing users to switch different layers on and off.

Updated Flood Zones reflect both local, detailed models and a new and improved national model. The Flood Zones are defined by Government in planning guidance and will continue to show present-day flood risk from rivers and sea. The Environment Agency will continue to be a statutory consultee on development proposed in Flood Zones 2 and 3.

Supporting datasets are included alongside the Flood Zones that show how climate change may affect the extent of flood risk from rivers and sea in future. Refer to the Data Services Platform announcement which explains what datasets are now available through the Flood Map for Planning

The Flood Map for Planning also displays surface water flood risk for the first time. This will raise the visibility of this important source of flooding so it can better inform the location and design of development. LLFAs will remain the lead risk management authority for this source of flooding and a statutory consultee on all major planning applications.

We will continue to improve the data and the Flood Map for Planning to make it ever more useful and user-friendly for planners and developers.

111. Will NaFRA2 constrain development? Will NaFRA2 jeopardise the government's house-building targets?

The government's NPPF is clear that LPA decisions on both local plans and planning applications should be informed by an understanding of all sources of current and future flood risk. Our new data should instil greater confidence in planners and developers to pursue the right kinds of development in the right places.

NaFRA2 data will help planners and developers identify the lowest risk locations for development. It will also help inform when a flood risk assessment is needed and when the Environment Agency must be consulted for advice.

112. What further support and guidance is available to help planners and developers use the new NaFRA2 data?

We have created a 'Development planning (including Flood Map for Planning)' section of our Sharepoint site to make it easier for local authorities interested in development planning to access the right information. The page includes:

- A video demo of the new Flood Map for Planning service
- A diagram explaining the suitability of our new flood and coastal erosion risk products for development planning
- A briefing note explaining the changes planned for the Flood Map for Planning service on 27 August 2025
- A briefing note which explained the early release process for Flood Zones and provides advice on managing the transition to the new data
- Additional guidance on the Flood Map for Planning service that explains how to use flood map for planning data (this guidance will not be published until 27 August 2025)

We have also created a new page on the TCPA's website where information aimed at developers and FRA consultants is hosted.

We ran a development planning-focused webinar on Tuesday 11th February in conjunction with the Town and Country Planning Association (TCPA).

A recording of the event is available on the TCPA's YouTube channel.

113. Will the Environment Agency charge for advice on the new flood and coastal erosion risk data and its implications for planning applications and SFRAs?

The Environment Agency does not charge for the provision of its flood risk and coastal erosion data unless the cost involved with providing such data would be manifestly unreasonable.

We do not charge LPAs for advice on planning application consultations. We are bound by a duty to respond in most cases.

We also do not charge LPAs for the statutory Regulation 18 and 19 stages of local plan preparation. These stages may include work on Strategic Flood Risk Assessments.

We will also not charge for attendance at preliminary meetings to understand what advice is being sought or to provide advice on the proposed scope of an SFRA and to identify key issues. Outside of these circumstances we offer a charged-for, discretionary advice service for more detailed advice on local plan and SFRA preparation. This advice may include things like quality assuring hydraulic modelling or reviewing drafts of an SFRA. See our Planning and marine licence advice:

Environment Agency standard terms and conditions. For further advice on whether we will need to charge you for our advice, please contact your local Environment Agency Sustainable Places team.

We can also provide advice directly to developers, such as at the pre-application stage of development. Developers can request a free preliminary opinion by completing this enquiry form. This will include advice on:

- environmental constraints
- if development will affect the environment
- the kind of information to include with a planning application
- if they need an environmental permit or other licence and if there are likely to be problems with granting it

The Environment Agency also offers a charged-for discretionary advice service if developers need more detailed, site-specific advice. See our Planning and marine licence advice: Environment Agency standard terms and conditions.

We have written to applicants of all live Nationally Significant Infrastructure Projects to highlight the new data and its potential implications for live projects.

New data summary

114. What data on Flood Map for Planning can be used for planning decisions?

The Data Services Platform announcement explains what datasets are now available through the Flood Map for Planning service.

This diagram explains the suitability of our new flood and coastal erosion risk products for development planning.

Additional guidance explaining how to use flood map for planning data will be available from 27 August 2025.

There have been no changes to existing datasets on Flood Map for Planning relating to main rivers, flood defences, and water storage areas.

115. What are the Flood Zones? Do the Flood Zones account for climate change? Which sources of flood risk are included in the Flood Zones?

Government has defined the Flood Zones in the flood risk and coastal change section of the Planning Practice Guidance. The Environment Agency is responsible for producing and publishing Flood Zones 1, 2 and 3.

Flood Zones show areas of land that could flood from rivers and/or the sea, ignoring the benefits of any existing flood defences. They can be summarised as:

Flood Zone 3

- Land having an annual probability of river flooding of 1% (1 in 100) or greater
- Land having an annual probability of sea flooding of 0.5% (1 in 200) or greater

Flood Zone 2

- Land having an annual probability of river flooding of between 1% and 0.1% (1 in 1000)
- Land having an annual probability of sea flooding of between 0.5% and 0.1%

The Flood Zones do not account for the effects of climate change on future flood risk. The Environment Agency produces Flood Zones 1, 2 and 3 and makes them available through the Flood Map for Planning service and through the DEFRA Data Services Platform.

Flood Zone 3b (functional floodplain) is defined and mapped by LPAs in their strategic flood risk assessments. Flood Zone 3b is therefore not differentiated on the Flood Map for Planning service.

116. Will Flood Map for Planning include information on asset failure scenarios such as flood defence breach? Will the new information help to assess residual flood risk?

The Flood Map for Planning will not show a specific flood defence failure scenario. Residual flood risks such as flood defence failure will therefore still need to be assessed in site-specific and strategic flood risk assessments accordingly. Planning policy requires flood risk assessments to demonstrate that residual risks can be safely managed.

The Environment Agency does sometimes hold local flood defence breach hazard and other asset failure information which can be made freely available on request. Users can request flood risk information for planning - known as a Product 4 - through the Flood Map for Planning service. If we hold breach hazard information it will be provided as part of our response to any Product 4 request for flood risk assessment data.

117. What will the Surface Water for Spatial Planning data be used for?

The government's National Planning Policy Framework is clear that the planning system should account for all sources of current and future flood risk.

The Flood Map for Planning will display surface water flood risk for the first time. This will raise the visibility of this important source of flooding so it can better inform the location and design of development. LLFAs will remain the lead risk management authority for this source of flooding and a statutory consultee on all major planning applications.

The NaFRA2 surface water flood risk data, should inform:
- The need for a site-specific flood risk assessment
- The need for the sequential test
- The LPA's approach to ranking sites through the sequential test
- The location and design of development

Refer to this suitability of datasets for development planning and the additional guidance explaining how to use flood map for planning data (available from 27 August 2025).

Please also refer to the section title 'Planned updates to Flood Map for Planning in January 2026' for more information about new surface water datasets to be added to the service in January 2026.

118. Will the Flood Zones and other planning data be updated again soon?

In future we plan to update flood risk datasets every 3 months to take account of new information as per the normal process. In 2025/26, flood risk updates may be more or less frequent as the new approach is established. We expect the first updates to start later in 2025.

Local Plans / SFRAs

119. Will LPAs have to update their SFRAs and review their local plans following publication of NaFRA2? What if the flood risk to existing allocated sites changes significantly?

Our understanding of flood risk is improving all the time. Dealing with new, emerging information on flood risk won't be a new challenge for the planning system. Our SFRA guidance and good practice guide already help planners prepare SFRAs, and include guidance on when to review or update SFRAs.

The new data NaFRA2 will provide should help improve the quality and coverage of SFRAs whilst making them easier and quicker for LPAs to prepare. It is essential SFRAs are designed to be living documents which can be readily updated to reflect new information.

In many locations, our understanding of flood risk will not change significantly. In cases where our understanding of risk does change, each case will need to be considered on its own merits. A risk-based approach should be taken to deciding whether further assessment or changes to policies or allocations are needed. This should take account of the nature and degree of change to our understanding of flood risk. The additional guidance explaining how to use flood map for planning data may be useful for those preparing SFRAs.

LPAs can speak to local Environment Agency staff about the need to update SFRAs. LLFAs may also be able to provide advice on the need to update SFRAs based on changes to surface water flood risk information.

120. Will NaFRA2 map Flood Zone 3b functional floodplain? How will NaFRA2 affect existing functional floodplain designations?

Government planning guidance is clear that Flood Zone 3b (functional floodplain) should be mapped by LPAs in their strategic flood risk assessments.

We have produced a flood risk dataset which may help LPAs identify and designate functional floodplain. The most relevant scenario is the present-day river/sea flood risk extent in a 3.3% annual probability event with existing flood defences operating effectively. Whilst this layer was added to the Flood Map for Planning service in March, it is being removed in the August 2025 update as we simplify the service based on user feedback. This dataset will remain available on the Defra Data Services Platform.

Refer to how to prepare a strategic flood risk assessment and guidance explaining how to use flood map for planning data (available from 27 August 2025) when preparing for new or updated SFRAs. Where a local planning authority is intending on using the new datasets on the Flood Map for Planning to map functional floodplain, this is subject to local agreement with the Environment Agency.

This dataset could also help planning applicants identify areas of functional floodplain in FRAs where existing SFRA designations are absent or out of date. For example, an existing SFRA may not have undertaken detailed assessment in all locations or may still use outdated definitions of functional floodplain such as the 5% annual probability event. Those undertaking FRAs should always review these datasets to check they are suitable for identifying functional floodplain in such cases.

We have also provided a climate change scenario for the defended, 3.3% annual probability event. This may help to identify areas which may be at risk of frequent flooding in future. This is likely to be an important consideration for decisions on the location and design of development. This layer was added to the Flood Map for Planning service in March, but is also being removed in the August 2025 update as we simplify the service based on user feedback. This dataset will remain available on the Defra Data Services Platform.

Planning applications

121. Will NaFRA2 river/sea flood risk data on Flood Map for Planning be suitable for use in FRAs? Does NaFRA2 change the circumstances when additional hydraulic modelling (including model reviews) will be required?

Whilst the new NaFRA2 river/sea data on Flood Map for Planning will represent a significant improvement in our understanding of flood risk, there will still be a need for users of the data to check it is fit for their intended purpose. Additional guidance explaining how to use flood map for planning data will be available from 27 August 2025.

The layers being removed from the Flood Map for Planning service will still be available on the Defra Data Services Platform to help support further assessments and inform planning decisions.

In some locations, the best outputs we hold are still only available from local models rather than our nationally created 'with/without defences' layers. These local model outputs remain available via our ‘Product 4s’, which can be requested through the Flood Map for Planning service.

As set out in our current guidance, it remains important that users check the suitability of all our flood risk data before use.

Flood risk assessments should always:

- be appropriate to the scale, nature and location of the development
- be proportionate to the degree of flood risk
- appraise the suitability of the flood risk datasets it has used

Flood risk assessments for large scale or vulnerable development in high-risk areas are likely to need to include a high level of detailed information. In some cases, this will need to include detailed hydraulic modelling. This is to make sure the flood risk to and from the development is understood in a proportionate way.

Those undertaking flood risk assessments should follow guidance in Using modelling for flood risk assessments to check:

- when modelling may be needed
- what standards to follow
- how to get modelling advice
- what information needs to be provided

122. Is the risk of flood from rivers and sea information on Check Your Long Term Flood Risk suitable for use in FRAs and planning decisions?

No, the risk of flooding from rivers and sea information on the Check Your Long Term Flood Risk Information service is not suitable for use in development planning. This includes both the extent and depth information.

We've added functionality to both the Flood Map for Planning and Check Your Long Term Flood Risk to try to bring this to the attention of users.

The extent and depth information shown for flood risk from rivers and sea on Check Your Long Term Flood Risk is unsuitable for use in planning, as it takes account of the probability of flood defence failure. It also describes the chance of flooding to a given depth, rather than the depth of flooding expected in a flood of a given likelihood. This is also explained on this suitability of datasets for development planning diagram.

Those undertaking flood risk assessment will need to use more suitable datasets to ensure assessments adequately consider all sources of current and future flood risk to inform the location and design of development.

In many places, the Environment Agency does hold flood depth/level information. Users can request flood risk information for flood risk assessments through the Flood Map for Planning service. If we hold flood depth/level information in the location of interest, it will be provided.

123. Will the NaFRA2 surface water flood risk data shown on Flood Map for Planning be suitable for use in FRAs?

To help users have a more complete understanding of flood risk from several sources, we have, for the first time, displayed surface water data within the Flood Map for Planning service. The FMfP service previously signposted users to the Check Your Long Term Flood Risk Information service to access surface water flood risk data.

Whilst the new NaFRA2 surface water data will represent a significant improvement in our understanding of flood risk, there will still be a need for users of the data to check it is fit for their intended purpose.

Flood risk assessments should always be:

- appropriate to the scale, nature and location of the development
- proportionate to the degree of flood risk
- appraise the suitability of the flood risk datasets it has usedb

Flood risk assessments for large scale or vulnerable development in high-risk areas are likely to need to include a high level of detailed information on all sources of flood risk. In some cases, this will need to include more detailed assessments of surface water flood risk. This is to make sure the flood risk to and from the development is understood in a proportionate way.

124. Should LPAs consult the Environment Agency on future flood risk? Will the Environment Agency be providing advice on future flood risk?

The Environment Agency is a statutory consultee on development in Flood Zones 2 and 3. Government planning guidance is clear that Flood Zones 2 and 3 do not take account of climate change. When the Environment Agency provides advice on development in Flood Zones 2 or 3, our advice will fully account for the predicted impacts of climate change in accordance with Government planning guidance and Environment Agency guidance on climate change allowances.

If development planned in Flood Zone 1 is identified as being at increased risk of flooding in future due to climate change (for example, a site lies within the 'Flood Zones plus climate change' extent), our flood risk standing advice for LPAs is clear that the site can be treated as if it were in Flood Zone 2. In most cases this means LPAs should refer to standing advice. But for some particularly vulnerable development types such as 'essential infrastructure' and 'highly vulnerable' uses, LPAs are asked to consult with the Environment Agency for advice. LPAs should always make clear why consultation has taken place.

125. Should LPAs consult the Lead Local Flood Authority when development is at risk of surface water flooding?

Lead Local Flood Authorities are statutory consultees on all major development with surface water drainage, irrespective of whether they are identified as being at risk of flooding from surface water.

Where non-major development is proposed in areas identified as being at risk from surface water flooding, LPAs should request a flood risk assessment and consider asking the LLFA if it wishes to be consulted.

The Environment Agency is not a statutory consultee on development in areas at risk of flooding from surface water.

126. What can the new climate change data be used for in planning and development? Will a FRA/sequential test be required in the future flood risk areas?

The government's National Planning Policy Framework is clear that the planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change.

The NaFRA2 data on the possible impacts of climate change on future flood risk from rivers and sea, should inform:

- The need for a site-specific flood risk assessment
- The need for the sequential test
- The LPA's approach to ranking sites through the sequential test
- The location and design of development

Refer to additional guidance explaining how to use flood map for planning data (available from 27 August 2025), including how the datasets may be used to help trigger the need for a Flood Risk Assessment or when applying the sequential test.

127. How does NaFRA2 affect application of the sequential test?

The government's National Planning Policy Framework is clear that strategic flood risk assessments should provide the basis for applying the sequential test.

LPAs may need to review and update their SFRA and any ranking methodology for applying the sequential test if the understanding of flood risk has changed. This will depend on the scale and nature of any changes, and also whether the changes coincide with locations of planned growth and development. Planning guidance is clear that the sequential test should account for all sources of current and future flood risk. See also - Will LPAs have to update their SFRAs and review their local plans following publication of NaFRA2? What if the flood risk to existing allocated sites changes significantly?

128. Does the Exception Test take account of future flood risk? Can the Exception Test be triggered by future flood risk?

Table 2 of Government's planning practice guidance, clearly sets out which developments should be subject to the Exception Test. The need for the test is determined by the vulnerability classification of the proposed development, and its Flood Zone. The Flood Zones do not account for the possible impacts of climate change on future risk. The 'Flood Zones plus climate change' layer (provided on the Flood Map for Planning service) is not defined by Table 1 of Planning Practice Guidance nor is relevant to the application of Table 2.

However, when development is subject to the Exception Test, it must be demonstrated whether the development will be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere. The impacts of climate change on future flood risk will be an important consideration for determining whether the Exception Test has been satisfied. This guidance explains how to use flood map for planning data (available from 27 August 2025).

129. Can LPAs stop development or require mitigation measures if planning permission has already been granted but new flood risk information shows flood risk may be greater than previously thought?

Planning decisions can only account for the evidence available at the time.

In some cases new flood risk information may be considered as part of the discharge of relevant conditions or at reserved matters stage. The extent to which this is possible will depend on the specifics of the case.

In exceptional circumstance, Local Planning Authorities ultimately have powers (section 97 of the Town and Country Planning Act 1990) to revoke or modify planning permission already granted, although developers may be entitled to compensation.

LPAs can speak to local Environment Agency staff for further advice if they're concerned about the safety of development with extant planning permission.

New data details

130. Why are the Flood Zones sometimes bigger than the undefended river/sea extents?

Following user feedback, the rivers/sea with/without defences layers are being replaced on the Flood Map for Planning service by a 'Flood Zones plus climate change' layer in August 2025. The removed layers remain available on the Defra Data Services Platform.

The 'undefended' river/sea flood risk extents identify the area of land that is expected to flood for an event with a given annual probability, if all existing flood defences are removed.

The Flood Zones are produced slightly differently. They combine the largest extent of flood risk for an event with a given annual probability using a combination of models and datasets as explained in the Data Services Platform FAQs.
They may also identify locations where flood risk extents could be greater if just some existing flood defences are removed, rather than all of them. In some locations the Flood Zones and the 'undefended' river/sea flood risk extents may come from different models. This may cause some inconsistencies.

131. The new flood risk information on Flood Map for Planning is wrong, how do I challenge it? Can Evidence Review Requests (ERRs) still be used to challenge flood zone data? Can successful ERRs be used to update the flood zones?

Our new National Flood Risk Assessment was used to publish new Flood Zone and supporting data on the 25 March 2025. In future we plan to update flood risk datasets that appear on the Flood Map for Planning (including the Flood Zones) every 3 months. In 2025/26, flood risk updates may be more or less frequent as the new approach is established. We expect the first updates to start later in 2025.

We publish flood risk maps on the Flood Map for Planning to inform decisions about the location and design of development. If a customer believes there is something incorrect with our flood risk maps for planning, they can contact the Environment Agency at enquiries@environment-agency.gov.uk with the address (including the postcode) of the location they are querying.

We will provide the customer with an explanation of the flood risk mapping results, discuss their concerns and explore whether an evidence review is necessary for the customer to be able to pursue planning permission.

If a challenge is considered necessary, we will specify the information the customer will need to provide as evidence for us to consider updating our mapping products. Successful challenges to the Flood Zones would be reflected in our cycle of quarterly updates.

132. Do the Flood Zones show flood risk from all types of rivers, or just Main Rivers? How will the flood zones show risk in small catchments (<3sqkm)? Can surface water information be used to inform understanding of river flooding in small catchments?

The Flood Zones take account of flood risk from watercourses with a catchment area of greater than 3 square kilometres, irrespective of whether watercourses are classified as ‘main rivers’ or not.

Where we have suitable data for smaller catchments, we consider including it in the Flood Zones subject to it meeting acceptable data requirements. In smaller catchments, evidence may come from local detailed models or from national modelling. In some locations smaller watercourses may also draw on direct rainfall modelling following the NaFRA2 New National Modelling. See also the explanation in Have you modelled all areas at risk of flooding or is there a minimum catchment size? Data for smaller catchments will only be included where the risk can be attributed to a watercourse.

The absence of Flood Zones in smaller catchments therefore does not always indicate that flood risk is known to be low. If development is proposed in such locations, it may be appropriate for further assessment to be carried out to ensure risks are understood. Our surface water flood risk information may inform assessments of where river flooding in small catchments might occur.

133. Which climate change scenario have you used for river/sea flooding on Flood Map for Planning and why? What if the FMfP

doesn't show the climate change scenario and/or time-horizon needed?

The climate change allowances are based on the latest UK Climate Projections (UKCP18) from the Met Office, using the Representative Concentration Pathway (RCP) 8.5. In summary, our approach is that we need to better prepare for a 2 degree increase in global mean temperatures, but to plan for a 4 degree increase.

Our Flood risk assessment: climate change allowances include several different allowances reflecting the range of possible future climates. They also provide allowances for different periods of time, acknowledging that some users will want to look further into the future than others. The periods of time vary for each source of risk because equivalent datasets for each source are not always available.

Flood Map for Planning is aimed at supporting planners and developers making long-term decisions about the location and design of development and the use of land. Such decisions need to account for the full anticipated lifetime of the development being planned. We have therefore chosen:

- the 'Central' allowance for the 2080s epoch (2070-2125) for risk of flooding from rivers
- the 'Upper End' allowance for risk of flooding from the sea, accounting for cumulative sea level rise to 2125.

Our understanding of climate change is improving all the time. We will keep our climate change allowances up-to-date to reflect the latest science. If the situation changes and different scenarios are needed, NaFRA2 will give us the flexibility to update our data and maps to reflect any such changes.

For each dataset, we have chosen the climate change allowance we think is most appropriate for its intended use. It should be noted that for some development proposals, additional climate change scenarios and time periods not shown, may still need to be assessed. For development with shorter anticipated lifetimes, it is not appropriate to use the rivers and sea extent or depth information on Check Your Long Term Flood Risk, even if the epoch appears more consistent with the lifetime of the development proposed. This dataset is not suitable for use in planning. This diagram explains the suitability of our new flood and coastal erosion risk products for development planning. Refer also to the answer included for Is the risk of flood from rivers and sea information on Check Your Long Term Flood Risk suitable for use in FRAs and planning decisions?.

134. How have you accounted for flood defences in the rivers and sea defended and undefended scenarios available on the Defra Data Services Platform? How have those layers accounted for flood defences in mapping the impacts of climate change on flood risk?

Following user feedback, the rivers/sea defended/undefended layers are being replaced on the Flood Map for Planning service by a ‘Flood Zones plus climate change’ layer in August 2025. The removed layers remain available on the Defra Data Services Platform, which is what this answer now refers to.

For the modelled present day ‘defended’ flood risk extents, we have assumed that existing flood defences will operate effectively.

For the modelled climate change ‘defended’ flood risk extents, we have assumed that existing flood defences will be retained and will operate effectively. We have not assumed that flood defences will be raised in future.

For both the present day and climate change ‘undefended’ modelled flood risk extents, we have ignored existing flood defences.

The Flood Zones shown on the Flood Map for Planning service are not always the same as ‘undefended’ extents. Whilst the Flood Zones ignore the benefits of existing flood defences, their precautionary nature means they also consider how flood defences may contribute to flood risk extents different to those where all defences are ignored.

Flood Zones also account for data on past floods and other data from third parties not included in the ‘undefended’ extents.

135. Why are there inconsistent results sometimes seen in the rivers and sea flood risk datasets available on the Defra Data Services Platform? What are we doing about these inconsistent results?

Following user feedback, the rivers/sea with/without defences layers are being replaced on the Flood Map for Planning service by a ‘Flood Zones plus climate change’ layer in August 2025. The removed layers remain available on the Defra Data Services Platform, which is what this answer now refers to.

In some locations the new rivers and sea supporting layers show inconsistent results. Examples include:

- 1 in 30 defended extents being bigger than 1 in 100 defended extents
- defended extents being larger than undefended extents

These issues only exist in some locations.

The flood zones are not affected by these issues.

We have produced these layers using a new process as part of our new national flood risk assessment (NaFRA2). NaFRA2 brings together local modelling and national modelling. In a given location:

- all the layers could be from local modelling
- all the layers could be from national modelling
- some layers could be from local modelling and others from national modelling

The main reasons for inconsistent results in these layers are:

- results showing differences in modelling (for example between national and local modelling)
- results in locations where we need to further improve the data quality - in some known locations we are working on important improvements to the new supporting layers (in those locations we have retained our previous flood zones while these improvements are made)

We are analysing the new data to better understand these issues. Data improvements and updates are planned later in 2025/26, which will help to resolve many of these issues.

136. Why haven't we published depth information for river/sea flood risk on the FMfP? When will it be available?

Depth data for river/sea flood risk is not available on Flood Map for Planning

We are planning to make rivers and sea banded depth information available in spring 2026, initially via the Defra Data Services Platform. This will only be in locations where depth information has been produced by our national model. Where suitable local detailed models are available, flood depth information is best accessed by requesting flood risk assessment data through the FMfP service.

We will provide more information in due course regarding if, when and how we may incorporate the information into the FMfP.

137. Why haven't we published groundwater flood risk information on Flood Map for Planning? When will groundwater flood risk information be available?

NaFRA2 does not currently assess flood risk from groundwater. There are no immediate plans to undertake a national assessment of groundwater flood risk.

Those undertaking flood risk assessment will need to ensure assessments adequately consider groundwater flood risk to inform the location and design of development. Our How to prepare a strategic flood risk assessment guidance includes signposts to other data which could help inform an assessment of groundwater flood risk.

138. Will the Environment Agency use the new data to designate 'areas with critical drainage problems' as per item 'zc' of

Schedule 4 of the Development Management Procedure Order 2015?

The Environment Agency is able to designate areas of Flood Zone 1 as having critical drainage problems. Doing so makes the Environment Agency a statutory consultee on development in such areas.

'Areas with critical drainage problems' are currently only designated by the Environment Agency in Devon and Cornwall.

There are no plans to use the new data to designate additional 'areas with critical drainage problems' or to amend existing designations.

LLFAs will remain the lead on surface water flood risk management. LLFAs are a statutory consultee on all major planning applications.

139. Can I use the JFlow 2004 national generalised modelling for Flood Risk Assessments, whilst no New National Model outputs are available?

Where national modelling has been used to create the Flood Zones, flood level or depth information is not currently available to provide for use in Flood Risk Assessments - we are working towards making these outputs available as soon as possible. The JFlow 2004 national generalised modelling outputs are no longer provided as this data is not used in the updated national flood risk products and is not considered of high enough quality to use for planning decisions. However, there may be some local models using JFlow software that continue to represent the best available information. Where appropriate, we will continue to provide data from those models for use in preparing FRAs. Those using the data will need to ensure it is fit for their intended purpose.

End