



National Audit Office



REPORT

Resilience to flooding

Department for Environment, Food & Rural Affairs

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Resilience to flooding

Department for Environment, Food & Rural Affairs

Report by the Comptroller and Auditor General

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Gareth Davies
Comptroller and Auditor General
National Audit Office

9 November 2023

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Key facts

£5.6bn

total central government capital funding for the period 2021-2027

200,000

Environment Agency's latest forecast for the number of properties that will be better protected through the capital programme, around 40% fewer than the government's original commitment of 336,000

203,000

additional properties at increased risk of flooding due to 93.5% of Environment Agency assets in high consequence systems being at required condition in summer 2023, compared to 98% which the Environment Agency considers optimal value for money

5.7 million

properties at risk of flooding in England in 2022-23

£800 million

of partnership funding that is yet to be secured of the £2.3 billion total partnership funding needed (including for projects that will deliver properties better protected after the current six-year capital programme)

9%

proportion of partnership funding provided by private sector (the Environment Agency estimates that businesses incur between 27% and 57% of all costs arising from flood damage)

96,000

flood defence assets maintained by the Environment Agency

£34 million

Environment Agency's assessment of the shortfall in its maintenance funding for 2022-23: its analysis showed that maintaining 98% of its high consequence assets at required condition at a cost of £235 million would achieve optimal value for money but received £201 million in the 2021 Spending Review

93.5%

of the Environment Agency's assets in high consequence systems are being maintained at required condition in summer 2023, below the 98% it regards as optimal

Summary

Background

1 Flooding and coastal erosion put lives, livelihoods and people's well-being at risk. Flooding can affect food production and destroy natural habitats. In February 2022, the country experienced three named storms (Dudley, Eunice and Franklin) in one week for the first time. More than 370 properties were affected, mainly by river flooding. In July 2021, parts of London received a month's rain within a couple of hours. More than 1,500 properties suffered from surface water flooding as a result. More recently, heavy, persistent and widespread rain affected much of England when Storms Babet and Ciaran struck in October and November 2023. The Met Office reported that 18th to 20th October was the third wettest independent three-day period for England and Wales in a series dating back to 1891. The Environment Agency (EA) reported that, by the end of October, Storm Babet alone had caused 2,200 homes to be flooded.

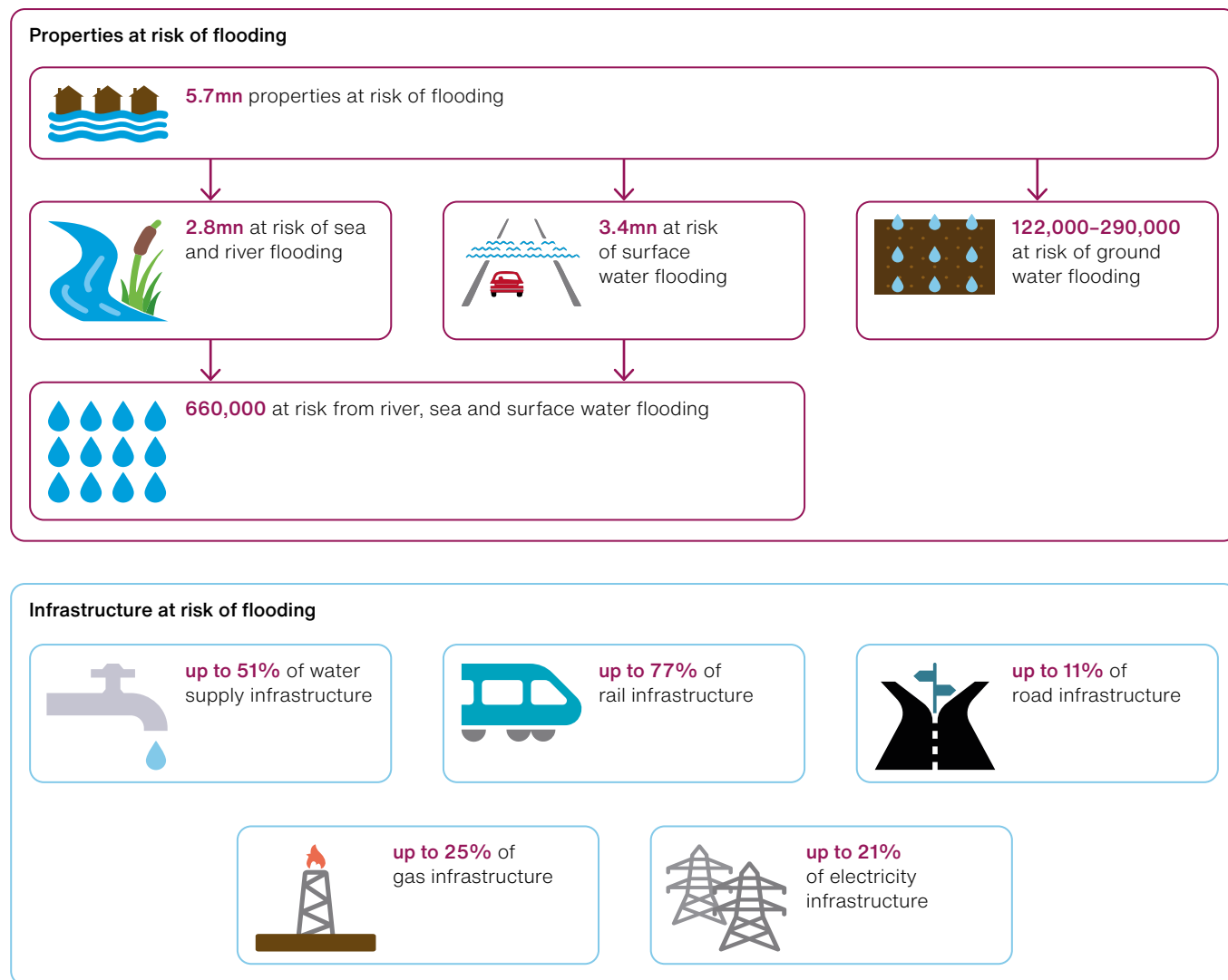
2 There are four main sources of flood risk: rivers; the sea; surface water (when rainwater cannot drain away); and groundwater (where the water table level rises above ground).

3 EA estimates that, in 2022-23, approximately 5.7 million properties in England were at risk from flooding. This figure has increased by around 500,000 between 2021-22 and 2022-23. EA reports that this is due to a better understanding of the level of risk, through improved information, rather than an increase in risk. There is also risk to transport and utilities infrastructure from flooding (**Figure 1** overleaf). The Met Office's UK climate projections show UK average temperatures increasing and sea levels rising. Its projections indicate more extreme weather events, including more intense rainfall. This, when combined with other factors such as more housing development, will increase flooding risks if mitigating actions are not taken.

4 The Department for Environment, Food & Rural Affairs (Defra) is the policy lead for flooding and coastal erosion in England with EA responsible for taking a strategic overview of all sources of flooding and coastal erosion. Risk management authorities (of which EA is one) are responsible for aspects of local and regional flood risk management (**Figure 2** on page 7).

Figure 1
Properties and infrastructure at risk of flooding in England, 2022-23

In 2022-23, approximately 5.7 million properties were at risk of flooding in England



Notes

- 1 Some properties identified within the 5.7 million at risk of flooding face multiple risks of flooding and therefore the underlying numbers sum to greater than 5.7 million.
- 2 The figure for ground water flooding is for 2021-22.

Source: National Audit Office analysis of Environment Agency estimates

Figure 2

Roles and responsibilities of main bodies involved in flood risk management in England

A range of bodies have national, regional and local responsibilities

Department for Environment, Food & Rural Affairs (Defra)

Defra has overall national responsibility for policy on flood and coastal erosion risk management, and provides funding for flood risk management authorities.

Regional flood and coastal committees (RFCCs)

There are 12 RFCCs in England. They are responsible for: ensuring coherent plans are in place for identifying, communicating and managing flood and coastal erosion risks across catchments and shorelines; promoting efficient, targeted investment in flood and coastal erosion risk management; and providing a link between flood risk management authorities and other relevant bodies.

Environment Agency (EA)

EA is the strategic risk management authority at a national level and is responsible for taking a strategic overview of the management of all sources of flooding and coastal erosion.

Risk management authorities (RMAs)

Lead local flood authorities (LLFAs)

LLFAs (unitary authorities and county councils) are responsible for developing, maintaining and applying a strategy for local flood risk management in their areas and for maintaining a register of flood risk assets. They also have lead responsibility for managing the risk of flooding from surface water, groundwater and ordinary watercourses.

District councils

Key partners in planning local flood risk management. District Councils can carry out flood risk management works on minor watercourses, working with LLFAs and other bodies.

Internal drainage boards (IDBs)

IDBs are independent public bodies responsible for water level management in low-lying areas.

Highways authorities

Highways authorities are responsible for providing and managing highway drainage and roadside ditches, and must ensure that road projects do not increase flood risk.

Water and sewerage companies

Water companies that are responsible for public sewers must ensure those sewers effectively drain the areas they serve.

EA also has operational responsibility undertaken through a network of area offices. This includes managing the risk of flooding from main rivers, reservoirs, estuaries and the sea, as well as being a coastal erosion risk management authority. EA area teams also lead on some capital projects.

- National
- Regional/Local

Source: National Audit Office analysis of Department for Environment, Food & Rural Affairs and Environment Agency documents

5 In July 2020, the government published its new policy statement on flood and coastal erosion risk management. In conjunction with the policy statement, EA published its *National Flood and Coastal Erosion Risk Management Strategy for England*. These documents set out the government's ambition to create a nation more resilient to flooding. They mark a shift in policy emphasis from managing flood risk towards creating greater resilience to flooding, recognising that a wider range of actions are now needed in addition to building and maintaining defences to reduce the risk of flooding. These actions include: avoiding inappropriate development in flood plains; using nature-based solutions to control the flow of flood water; better preparing and responding to incidents; and making properties and infrastructure more resilient to future flooding. However, government has not quantified the level of flood resilience or risk reduction it is aiming to achieve in the long term.

6 Alongside its policy statement, the government announced a new six-year capital investment programme (capital programme) for flood and coastal defence for the period 2021 to 2027. The government committed to better protect 336,000 properties and help avoid £32 billion of wider economic damage by investing £5.2 billion in around 2,000 new flood defence projects. In cash terms, this was double the investment in the previous six-year (2015–2021) capital programme, which better protected 314,000 homes.¹ Government announced a further £370 million of capital funding for 2021–2027 in 2020 for innovative projects and to accelerate work on projects, taking the total capital funding for 2021–2027 to just under £5.6 billion. To measure the capital programme's performance, Defra and EA have developed a set of 18 metrics with the primary focus on the 'headline' metric of the number of properties better protected.

7 In addition to central government funding, there is a range of other funding sources for flood risk management. Partnership funding is an important source of funding, where risk management authorities raise funds from the public and private sectors towards a flood defence project. EA estimates that £2.3 billion of partnership funding is needed to supplement central government funding for the period 2021–2027. Projects in the capital programme that require partnership funding cannot go ahead until this additional funding is secured.

Scope of the report

8 We last reported on government's management of flood risk in November 2020. In this report, we look at the government's long-term ambition "to create a nation more resilient to future flood and coastal erosion risk" and, in the more immediate term, whether Defra and EA are delivering value for money after two years of the capital programme. To do this, we have assessed Defra's progress against the backdrop of its 2020 policy statement and EA's 2020 strategy. We also assess EA's performance in maintaining existing flood defence assets.

¹ For the 2015–2021 programme, the principal performance measure was the number of homes better protected. For 2021–2027, this has been extended to include non-residential properties.

9 The report covers:

- the government’s long-term ambition and objectives and Defra’s governance, understanding and management of flood risk (Part One);
- progress on the capital programme to build new flood defences and risks to future delivery (Part Two); and
- EA’s performance in maintaining flood defence assets (Part Three).

10 While this report looks at aspects of the effectiveness of the overall delivery landscape for flood risk management, we did not audit local authorities or other risk management authorities. We did, however, seek their views on a range of issues. Managing flooding and coastal erosion in Scotland, Wales and Northern Ireland is devolved to the respective administrations and is therefore not within the scope of this report. Our study methods and scope are set out in Appendix One.

Key findings

Governance, understanding and management of flood risk

11 The government wants to achieve greater resilience to flooding in the long term but has no measure for resilience and no target for the level of flood resilience it expects to achieve. We expect programmes to have clear objectives and an understanding of what they are trying to achieve. The government’s 2020 policy statement sets out “the government’s long-term ambition to create a nation more resilient to future flood and coastal erosion risk”, but does not set a target for the level of flood resilience it expects to achieve. Both the National Infrastructure Commission and Climate Change Committee have recommended that government sets long-term targets for the level of flood resilience and flood risk it is seeking to achieve. Defra has no plans to introduce a quantified long-term target for flood resilience. Although EA published research in 2022 which explored a range of resilience indicators that could be introduced, Defra did not meet its policy statement commitment to develop a national set of indicators by spring 2022. These indicators were to monitor trends over time to better understand the impact of its policies, and to strengthen reporting of progress towards its goals so it is clearer and more accessible. They have still not been developed but Defra told the Public Accounts Committee (PAC) in May 2023 that it would provide an update on progress on this by the end of 2023 (paragraphs 1.2 to 1.6).

12 EA has set out short-term actions in its roadmap to 2026 but these are not sufficient to achieve its long-term objectives to 2050, and it has not yet established any plans or milestones to bridge the gap. EA's 2020 strategy includes a number of long-term objectives to 2050. EA is taking forward work to help it and government better consider flood risk in the long term, for example, through its work on long-term investment scenarios, which provide a range of investment scenarios over a 50-year period. However, there are no plans beyond 2026 to bridge the gap between the results of its shorter-term actions and the requirements of its long-term objectives. EA has set out a range of short-term actions to support delivery of the strategy, firstly in its Action Plan covering 2021-22 and then in its strategy roadmap containing actions it, and other bodies, will take by 2026. EA's monitoring shows it is making good progress against the actions in its roadmap. EA is planning to review its 2020 strategy in 2026, at which point it will update the shorter-term measures set out in its roadmap. However, EA has no plans to develop a long-term set of key milestones and dates for delivering its ambition for a more resilient nation. In addition, Defra's policy statement contains 49 actions. Many of these are not time-bound but, of those that are, none has a target date beyond 2027 (paragraphs 1.6, 1.7 and 1.11).

13 EA's work to update its National Flood Risk Assessment model has the potential to provide a much-improved understanding of flood risk. Our 2020 report highlighted the gaps in Defra's and EA's understanding of flood risk and how flood risk is changing over time. EA is developing a new National Flood Risk Assessment (NaFRA2), which it states will improve its assessment in areas such as surface water flood risk and the impacts of climate change. The methodology has been updated since the previous model and will build up an assessment of risk from local models. This will allow more accurate tracking of changes in risk over time. EA is confident that NaFRA2 will be ready on time, towards the end of 2024, with the planned functionality. NaFRA2 will be used to update EA's long-term investment scenarios (paragraphs 1.8 to 1.11 and Figure 3).

14 Defra has created a new board to improve its engagement with the capital and maintenance programmes and strengthen its oversight. In response to our 2020 report, Defra has strengthened its oversight of the capital and maintenance programmes with the establishment, in July 2021, of the Flood Investment Portfolio Board (the Board). The Board has introduced 22 metrics to measure progress and has also developed a risk register. Both Defra and EA are positive about how the new Board is working (paragraphs 1.12 to 1.14).

15 There are weaknesses in the quality of the data EA is using to manage its programmes and report progress. During our fieldwork, we requested a range of management information from EA and encountered significant issues with the quality of the data systems and information EA is using to manage and report progress on the capital and maintenance flood programmes. These included issues around the consistency, completeness and accuracy of data on, for example, partnership funding and the condition of its assets. The Comptroller and Auditor General's report in EA's 2021-22 annual report and accounts highlighted concerns with data quality on EA's asset records. EA internal audit reports have also raised concerns about data quality. Defra and EA told us that they had put significant effort into improving data quality, and EA has an ongoing Delivery Portfolio Improvement Plan, which includes improving data and systems over the next year. However, EA analysis in June 2023 indicated there are still gaps in EA's asset database. Defra also highlighted ongoing issues with the quality of data provided by other risk management authorities. Taken together, these weaknesses cast doubt on the quality of some Board reporting, which could mean members are not aware of the extent of risks to delivery (paragraphs 1.16 to 1.18).

Progress on the capital programme

16 By 2027, the capital programme is likely to provide better protection to around 40% fewer properties than EA originally planned. The number of properties better protected is the primary performance indicator for the capital programme. In 2020 when the capital programme was originally announced, government committed to spend £5.2 billion to better protect 336,000 properties by 2027. In the first two years, EA has delivered 59,000 properties better protected and has spent £1.4 billion. However, EA has since reduced its forecast to 200,000 properties better protected by 2027, a reduction of 40%. EA estimates that this provides a benefit-cost ratio of 4.8 to 1. Defra is developing proposals for HM Treasury on the reprofiling of the capital programme, so this forecast is not yet an agreed target. Even delivering to this lower forecast relies on projects with only medium or low delivery confidence and on projects that are still in the design or pipeline stage (paragraphs 2.1 to 2.6 and Figure 4).

17 There are a number of reasons for the reduced forecast for properties better protected, some of which were beyond EA's and Defra's control. The capital programme got off to a slow start because EA was still completing projects from the previous programme, despite £100 million being brought forward to support delivery of the capital programme. It also faced challenges from the COVID-19 pandemic and EU Exit which caused supply chain difficulties and reduced the availability of skilled workers. There was an underspend of £310 million in the first two years of the programme and HM Treasury has deferred this funding for use in later years. Other factors are having a continuing impact:

- Inflation has had a significant impact on project costs and on the programme outcomes. EA estimates that inflation is the cause of between a half and two-thirds of the reduction in the forecast number of properties better protected.
- Delivery is being slowed by capacity and skills shortages both in EA and local authorities as a result of, for example, a highly competitive external jobs market and the need to create new posts to manage the increased size of the capital programme.
- Changes in 2021 to Defra's funding rules and EA's processes for the capital programme did not go far enough in streamlining the processes for smaller projects.
- The business case process is taking longer. EA is currently investigating the reasons for this but told us it is partly due to increasing inaccuracy and uncertainty of information in project business cases and also the increased complexity of projects (paragraphs 2.4, 2.14 to 2.25 and 2.34).

18 EA has reduced its forecasts for the environmental benefits the capital programme will deliver. With fewer projects in the capital programme, EA has fewer opportunities to achieve environmental benefits. EA now forecasts that it will create or improve 3,875 hectares of habitat compared with an original target of 5,440 (a reduction of 29%) and enhance 684 kilometres of river compared with the original target of 830 (a reduction of 18%). As part of a government-wide commitment to increase the number of projects it funds that include nature-based solutions to reduce flood and coastal erosion risk, EA committed to doubling the number of projects in the floods programme that include nature-based solutions from the 130 that were included in the 2015–2021 programme to 260. EA reduced its forecast to 144 in July 2023. In September 2023, Defra and EA announced that £25 million of the capital programme budget would be set aside for projects that use nature – such as restoring wetlands or planting trees – to protect communities from flooding. With this funding, EA now expects to achieve the target of 260 projects (paragraph 2.7 and Figure 6).

19 There are wide regional variations in flood defence investment which are not explained by the relative levels of flood risk. For example, average capital expenditure per property at risk in the North-East of England is £12,563, four times that in the East and West Midlands. Defra says that the amount of investment in an area is governed by the number of feasible projects available and their benefits as well as where flood risk is greatest. However, our concern is that other considerations, for example the availability of partnership funding contributions, are also likely to be factors. EA publishes annual analysis of investment levels and properties better protected by region and, in response to the PAC report on managing flood risk, published in February 2021, investment in deprived areas. PAC also recommended that Defra follows up this analysis with action to reduce any funding inequality. Defra told us it is concluding analysis to understand the key drivers of these regional investment disparities. It is using some of the capital programme funding to support projects that are having difficulties securing partnership funding. PAC also recommended that Defra should identify areas where there is likely to be a shortfall in local authority resources and private sector contributions to ensure effective flood risk management in all local areas. Defra is working on this, but it is not expecting to complete it until winter 2023-2024, two years later than its previous undertaking to the Committee (paragraphs 2.8 to 2.10 and 2.12).

20 There are several risks that could lead to EA delivering even fewer properties better protected than its reduced 200,000 forecast by 2027.

- a Partnership funding:** EA currently estimates that £2.3 billion of partnership funding is needed for the capital programme. In July 2023, £800 million partnership funding was yet to be secured, of which EA estimates that £450 million is associated with projects to better protect properties by March 2027. Ongoing inflationary pressures are likely to further increase the need for partnership funding. Private sector businesses are major beneficiaries from largely public sector funded defences: EA estimates that between 27% and 57% of the economic costs of damage due to floods are costs to businesses. Despite this, little partnership funding has been secured from the private sector: across the capital programme to date, only 9% (£128 million) of the total partnership funding has been secured directly from the private sector, although this is an increase from the £39 million secured during the 2015–2021 capital programme. Defra has not set a target for the level of partnership funding it is seeking from the private sector, either on a project-by-project basis or overall (paragraphs 2.26 to 2.28).
- b Reliance on large projects:** delivery of the target is dependent on a small number of very large projects: 43 projects are expected to deliver around two thirds of the forecast properties better protected. Any delays to these projects beyond the end of the capital programme would significantly affect the number of properties better protected achieved by the capital programme (paragraph 2.29 and Figure 12).

- c Projects led by risk management authorities (RMAs):** RMA-led projects are expected to deliver 49% of the properties better protected. EA considers these projects to be riskier because it has less direct control over their delivery. They are also scheduled for delivery later in the capital programme: 39% of the RMA-led properties better protected are due to be delivered in the final year of the capital programme compared with 16% of EA-led. Minor delays to these RMA-led projects could further reduce the number of properties better protected by the end of the programme (paragraphs 2.30 and 2.31 and Figure 13).

21 EA's past attempts to accelerate projects have increased costs and delays and this remains a risk for the programme. Due to the deferment of the underspend in the first two years of the programme, and investment at record levels, EA will need to invest an average of almost £1 billion for each of the remaining four years of the programme. Rigidly applied funding periods and targets can create risks to value for money when there is pressure to spend money or achieve targets by the end of the period. At the end of the 2015–2021 programme, EA attempted to accelerate some projects so that the properties better protected could be counted towards that programme's targets. This brought risks: for example, the Boston Barrier project in Lincolnshire was accelerated in a phased way so that the 13,000 properties that were better protected by March 2021 could contribute to the target. But final completion of the project is now delayed by more than four years and costs have increased from £124 million to £184 million. While there is no overall policy to accelerate the capital programme, EA has accelerated 19 of its largest 55 projects in the 2021–2027 capital programme. EA's analysis of these projects suggests that projects that have been accelerated are more likely to experience overspends: of the 19 accelerated projects, 68% are forecast to be at least 25% over budget compared with 28% of the 36 projects that were not accelerated. EA told us that some of these cost increases are costs that were not identified earlier because of the speed at which the business cases were developed (paragraphs 2.32 to 2.34).

Maintaining flood defence assets

22 EA is not maintaining its flood defences to a level that optimises value for money. EA has assessed that maintaining 98% of high consequence flood defence assets at their required condition will provide optimal value for money and this would require additional investment.² It has not achieved this level for its assets in high consequence systems over the past five years.³ In summer 2023, only 93.5% of EA's assets in high consequence systems were being maintained at the required condition. This is below the 94%–95% level of maintenance agreed with Defra in the 2021 Spending Review settlement. This means that, as at summer 2023, 203,000 properties are at increased flood risk because more EA assets are below the required condition. At the same time, EA estimates that a further 50,000 properties were at risk from flooding due to assets owned by third parties being below required condition, taking the total to 253,000. EA emphasised that an asset being below required condition does not necessarily mean it has structurally failed, or that its performance in a flood is compromised, rather that the probability that it will not perform as designed is increased (paragraphs 3.6, 3.7, 3.13 and 3.14, and Figure 15).

23 A key reason for properties being exposed to additional flood risk is a shortfall of £34 million in EA's maintenance funding for 2022-23. In the 2021 Spending Review, EA estimated the funding needed to maintain 98% of its high consequence assets at the required condition, which would minimise total expenditure in the long term, was £235 million a year. Defra and HM Treasury agreed a total resource budget between 2022-23 and 2024-25. Following Defra's 2022-23 business planning, it set EA an overall floods resource budget of £300 million a year for that period. This included nominal flood defence maintenance allowances of £201 million for 2022-23 and £196 million for 2023-24, which EA considered would allow 94%–95% of assets in high consequence systems to be maintained at the required condition. The budget for 2022-23 represented a £22 million (12%) increase from the previous settlement of £179 million for 2021-22. Defra has provided EA with an indicative resource budget for its floods work in 2024-25 and EA told us it is currently working to the assumption of £190 million funding for maintenance in 2024-25. Short-term resource funding settlements are a challenge for EA in planning its maintenance programme and introduce uncertainty for recruitment (paragraphs 3.8 and 3.9 to 3.11).

2 EA's flood risk management assets are assigned a condition grade using a visual asset inspection. This is a grade between 1 and 5. Most of EA's assets are set a target condition grade of 3 (Fair). 'Below required condition' means the asset is in condition 4 or 5, or below its target condition.

3 EA divides flood defence assets into high, medium and low consequence asset systems depending on the number of properties they work together to protect: high consequence systems are those that protect a high number of properties.

24 Defra and EA did not explore with HM Treasury the potential to use part of the capital budget underspend to address the shortfall in maintenance funding in 2022-23. The number of properties (203,000) at increased risk due to EA maintaining only 93.5% of its high consequence assets at required condition, instead of the 98% that EA considers optimal, exceeds the forecast of 200,000 properties better protected through the capital programme. These figures are not directly comparable: new flood defences provide benefits over a long time period whereas benefits from annual maintenance spending may be shorter term, and the reductions in the scale of risk resulting from maintenance may not be equivalent to the increased protection provided by new flood defences. However, taken together, the two figures suggest there may sometimes be a case for switching funding from the capital programme into maintenance (funded by 'resource' spending) to manage the overall flood risk when capital spending is delayed. HM Treasury offers some flexibility for departments to switch funding between capital and resource, for example, if capital spending is delayed. In order to move money from its capital programme to its maintenance programme, Defra would require HM Treasury approval. HM Treasury has deferred the £310 million underspend in the first two years to later years of the capital programme. Defra considered that this represents value for money because of the positive benefit-cost ratio of the programme as a whole. However, Defra and EA did not assess whether using part of this underspend to meet the shortfall in its maintenance budget in 2022-23 would provide better value for money and did not ask HM Treasury for this flexibility. Defra has provisionally agreed with HM Treasury to switch £25 million from the capital programme to fund maintenance in 2023-24 and Defra is discussing with EA the extent to which this can increase the proportion of its high consequence assets at required condition (paragraphs 3.11 and 3.14).

Conclusion on value for money

25 To combat the growing dangers from flooding, the government has doubled its capital funding in England for the six years to 2027. To manage the larger capital programme and record levels of investment, Defra has intensified its scrutiny and is taking steps with EA to develop a more granular understanding of flood risk. However, the capital funding is forecast to deliver protection to far fewer properties by 2027 than was promised when the capital programme was launched. Due to underspending in the first two years of the programme, EA will need to achieve record levels of investment in the remaining four years of the programme to spend the full £5.2 billion allocated to the programme. There is a risk that value for money will be further eroded if projects are accelerated or new projects are introduced too quickly to meet this level of investment. On top of this, EA's maintenance of its assets is not optimising value for money. For the lack of £34 million in annual maintenance funding for 2022-23, more than 200,000 properties are at increased risk of flooding. At the same time, EA underspent by £310 million in the first two years of the capital programme. Neither Defra nor EA assessed whether using some of this underspend to meet the shortfall in its maintenance budget in 2022-23 would have provided better value for money than deferring it to later in the capital programme.

26 The government acknowledges that building new flood defences and maintaining existing ones is no longer enough and that a wider range of interventions is now needed to build resilience against increasing flood risk. Although the government's vision for flood resilience stretches to the year 2100 and EA has a number of strategic objectives for 2050, it has not set a target for the level of flood resilience it expects to achieve and has not mapped out any solid plans beyond 2026 to bridge the gap between its shorter-term actions and long-term objectives. This will make it difficult for the government to make rational and informed decisions about its priorities, measure its progress or plan effective investment for the long term.

Recommendations

27 Defra, EA and HM Treasury should:

- a** work together to ensure that decisions on the current reprofiling of the capital programme are not influenced by short-term funding periods and targets and are focused on maximising long-term value for money; and
- b** by April 2024, explore how to ensure there is the necessary flexibility to easily switch money from the capital programme into the asset maintenance budget where it is value for money, and ensure the decision-making process is streamlined to enable timely decisions to be made. Defra and EA should undertake a timely assessment of the value for money of such options going forward to inform this decision-making process.

28 Defra and EA together should, as part of planning for the next capital programme:

- c** consider how they expect the profile of projects to change in size and nature and implement any partnership funding policy, rule or process changes that may be needed well in advance of the next capital programme;
- d** take realistic account of staff resource constraints when setting out the objectives, scope and ambition of the next capital programme and the impacts on whole-life asset management;
- e** assess how well the geographical distribution of investment reflects needs at a local level and publish their findings by the end of 2024 together with proposals to mitigate any funding inequalities that this may identify; and
- f** engage over the next year with the private sector at a national and local level to publicise the benefits the private sector derives from the capital programme and encourage increased private sector financial contribution to the capital programme to reflect these benefits. Defra should also set a target for private sector partnership funding contributions for the next capital programme.

29 EA should:

- g** before planning starts for the next capital programme, develop a set of key long-term milestones and dates which chart the course towards becoming a nation resilient to flooding by 2100. This should look to cover a timetable comparable with the long-term investment scenarios 50-year view of flood risk and investment, and which goes beyond the six-yearly roadmap planning. It should include an integrated assessment of maintenance and capital spend to secure value for money;
- h** in the next 12 months, develop a plan of work to investigate the reasons for the increased inaccuracy and uncertainty in its business case forecasts and, based on the findings, put in place remedial actions; and
- i** ensure that the Delivery Portfolio Improvement Plan delivers against its data and systems objectives by April 2024 to ensure the data EA collects and uses are complete, consistent and accurate, and provides the transparency needed by senior officials and ministers to fully understand the risks to progress. EA should review the position in April 2025 to ensure these objectives have been met and that data are of the required quality. In addition, EA should continue to improve its existing asset data in the AIMS:OM system with a target completion date of March 2025.