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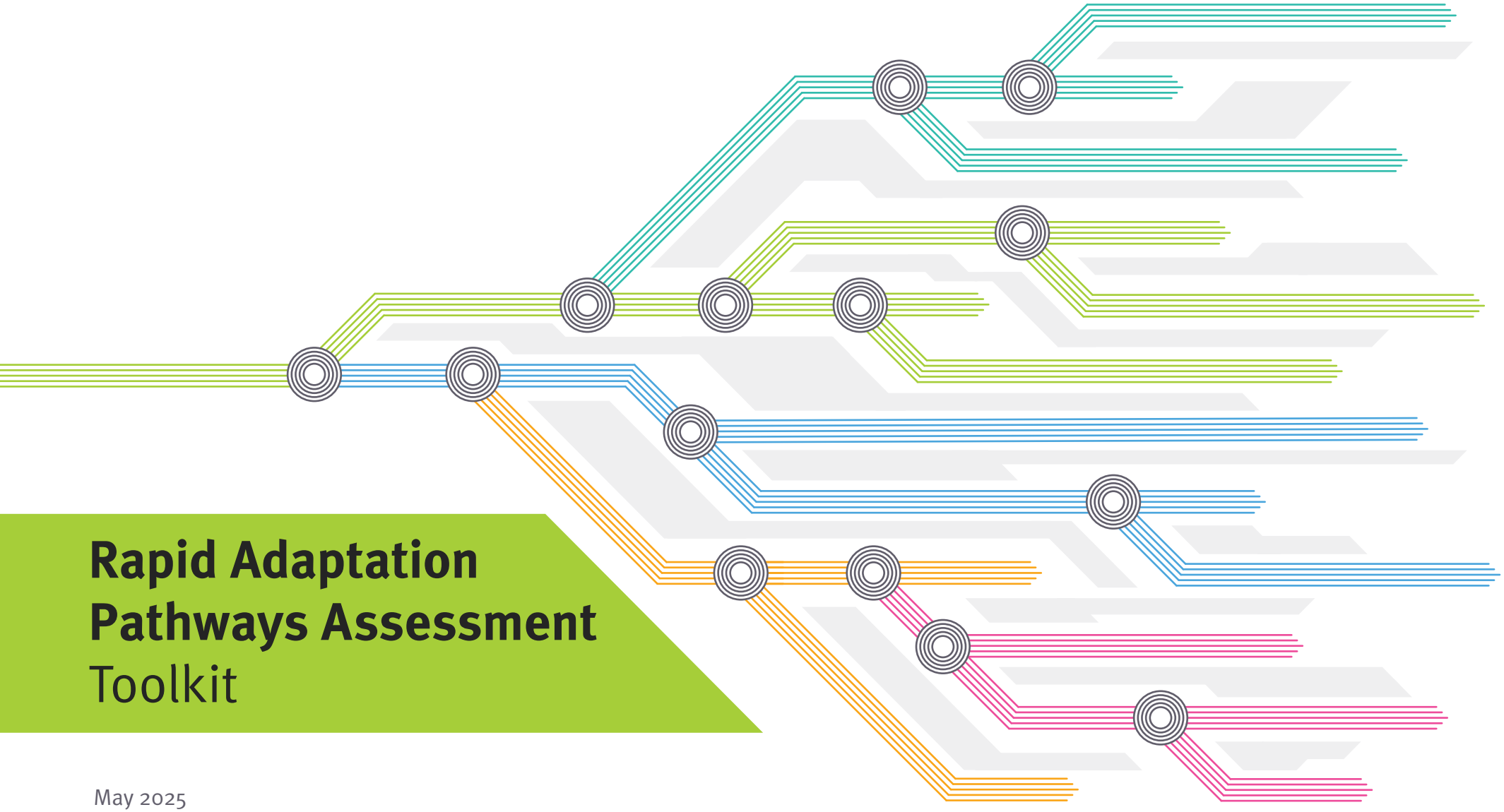

Rapid Adaptation Pathways Assessment Toolkit

May 2025

RAPA Facilitation guide

This document is a facilitator's guide to implementing Rapid Adaptation Pathways Assessments (RAPA). It offers practical advice on conducting workshops both in-person and online. It has been jointly produced by ADEPT and the Environment Agency.

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1 Introduction

1.1 Strategic context

Risk Management Authorities (RMAs) are on the frontline of adaptation to climate change: minimising the negative impacts of extreme weather on people's lives, property and critical infrastructure.

By adapting to anticipated climate risks, RMAs can safeguard economic stability, vulnerable communities, ecosystems and biodiversity while enhancing the quality of life of residents.

In this way, RMAs can reduce long-term costs while creating more resilient communities that can adapt and thrive in a changing climate.

Why might you need this guide?

Adaptation to climate change is an example of a 'wicked' problem. There's no clear solution.

The Adaptation Pathways (AP) approach[1] allows decision-makers to plan, prioritise and sequence investments in adaptation options.

Click the video above for a spoken introduction

This toolkit has been designed for use in flood and coastal erosion risk management (FCERM).

[1] More information about the ADEPT Environment Agency explainer video and Environment Agency Adaptation Pathways knowledge hub can be found here: Adaptation Pathways | ADEPT (adeptnet.org.uk)

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> *"Early learning from our Adaptation Pathway Programme shows it's helpful to bring partners together at an early stage to consider the problem at hand, rather than dive straight into detailed adaptation pathway building. It's helpful to start simple: building consensus around one or more pathways before delving into technical assessment. Rapid Adaptation Pathways Assessment (RAPA) can help with this.*
>
> *Climate Sense designed the RAPA approach. They're climate adaptation specialists, with lots of experience running workshops with different stakeholders. We tested the approach as part of our Adaptation Pathway Programme. It allowed partners to share understanding, consider future risk with extreme climate change, and use expert judgement to identify thresholds and actions."*
>
> Harry Chalk, AP Business Lead, Environment Agency

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Use this document to:

- build your understanding of adaptation pathways
- find out about the RAPA approach
- deliver your own RAPA workshop

This facilitation guide takes you through all stages of a RAPA Workshop from early scoping to next steps. The key stages are illustrated in Figure 1.

Figure 1: Stages of the RAPA process

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1.2 What are adaptation pathways?

The adaptation pathways approach[2] allows decision-makers to plan, prioritise and sequence investments in resilience actions. These can include a range of measures such as making decisions on land use, nature-based solutions and flood and coastal defences. The National Flood and Coastal Erosion Risk Management Strategy for England (2020) provides examples of resilience actions (pages 47–48).

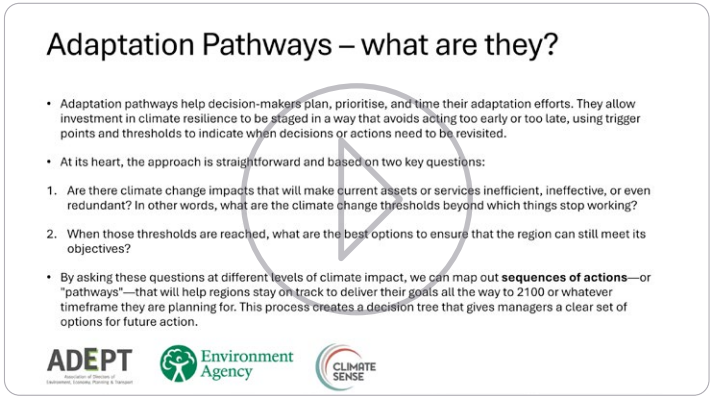
This approach is considered global best practice in adaptation planning because it supports strategic, flexible and structured decision-making.

By using this approach, RMAs can take action at the right time, avoiding the cost associated with acting too early or too late. The concept is straightforward and based on two questions:

1. Are there climate change impacts that make current assets or services inefficient, ineffective, or redundant? For example, the climate change thresholds beyond which things do not work
2. At these thresholds, what are the best options to enable RMAs to meet their objectives?

By repeating these questions at different levels of climate impact, sequences of actions or 'pathways' can be constructed that keep RMAs on track to meet their objectives through to 2100. This process produces a decision tree that offers managers various options for planning action. Trigger points and thresholds help to identify when to revisit decisions or actions.

A nine-step guide to the adaptation pathways process is described in British Standard BS8631, 'Adaptation to climate change. Using adaptation pathways for decision making and illustrated in Figure 2 on the next page.



What are Adaptation Pathways?

[2] More information about Adaptation Pathways can be found here: Adaptation Pathways | ADEPT (adeptnet.org.uk)

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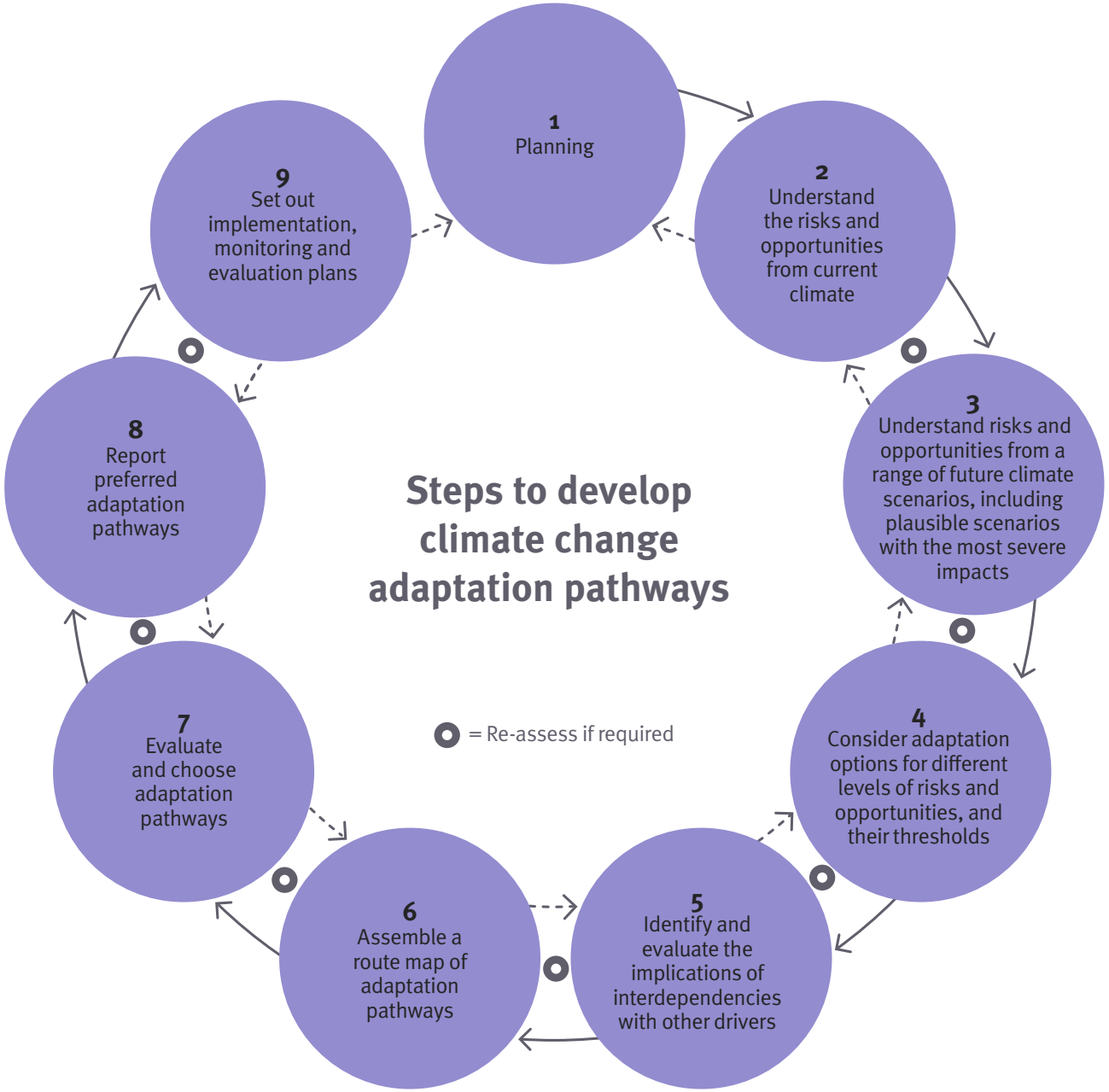

Figure 2: British Standard on Adaptation Pathways (BS8631) nine steps for developing adaptation pathways[3]

[3] This is an updated version to correct a minor graphical error in BS8631.

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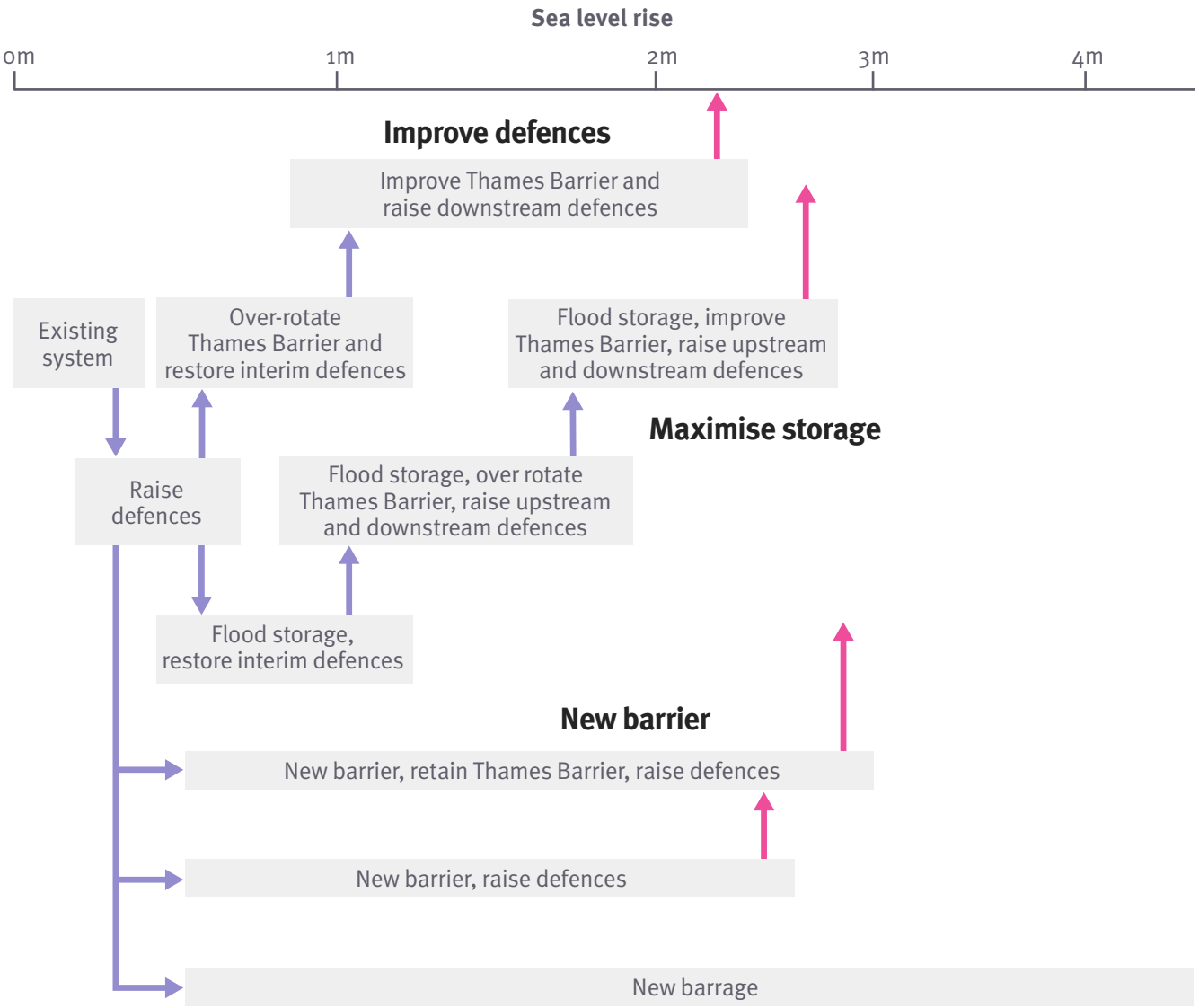

2008 climate change scenarios and implications on options. Note: Each box represents one or more portfolios of responses.

Slide courtesy of Environment Agency

Figure 3: Thames Estuary 2100 (TE2100) adaptation pathway for protecting London and the Thames Estuary from sea level rise

Adaptation pathways provide a range of credible options for RMAs to choose, as shown by the example in Figure 3. By monitoring changing climate impacts and the effectiveness of the pathway actions, managers can decide whether to continue with the chosen pathway or shift to an alternate to balance acceptable levels of risk whilst maintaining performance. This supports risk management both now and in the future.

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1.3 What is a RAPA and why is it useful?

You can use RAPA as the first step on your adaptation planning journey.

> *"Experience tells us to start simple and build.*
>
> *It feels more manageable to bring partners together to consider and understand the shared problem in the first instance, before diving into detailed adaptation pathway development.*
>
> *RAPA can help with this. Use it as your first step."*
>
> Harry Chalk, AP Business Lead, Environment Agency

What is a RAPA?

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RAPA is delivered through a workshop. The process helps you to:

- explore climate impacts and adaptation opportunities in collaboration with key stakeholders
- form relationships and build a shared understanding with these stakeholders
- use expert knowledge and existing data
- identify and estimate thresholds where action is needed
- identify actions that could be implemented at these thresholds
- develop high-level adaptation pathways.

The RAPA exercise will encourage you and your stakeholders to think beyond traditional approaches and consider future, less visible risks. Together you will:

- clarify who to involve
- identify steps you'll take towards developing a coherent, inclusive and actionable plan
- highlight areas requiring further investigation.

RAPA is an initial step on a longer adaptation planning journey. This means careful follow up is essential.

The approach can be applied across a range of scales. Annex 1 provides examples of RAPAs for different issues and involving varying levels of stakeholder participation. Participant numbers and expertise can be aligned to the scale and complexity of the exercise.

The RAPA process is founded on the first four or five steps of the nine-step adaptation pathways approach, which is the format for the BS8631 Adaptation Pathways standard (see Figure 4).

Sections 2–5 of this guide explains how to do this. The process can be summarised as follows:

Pre-workshop

1. **Define the problem. Establish the purpose and scope of your RAPA**

During the workshop

2. **Understand the current climate risks and opportunities**
3. **Assess risks and opportunities for a range of future climate scenarios, including the most severe climate change scenarios**
4. **Identify adaptation options for different levels of risk and opportunity and determine their thresholds**
5. **If relevant, consider the interdependencies between different actions and their drivers[4].**

Post workshop

The final session of the RAPA workshop should focus on planning the next steps. This includes summarising the key findings from the RAPA, highlighting gaps and capturing follow up activities to maintain momentum.

[4] The video on the previous page describes a four stage RAPA approach. Consideration of interdependencies worked well in during pilot testing and has been included as a 5th step in this toolkit.

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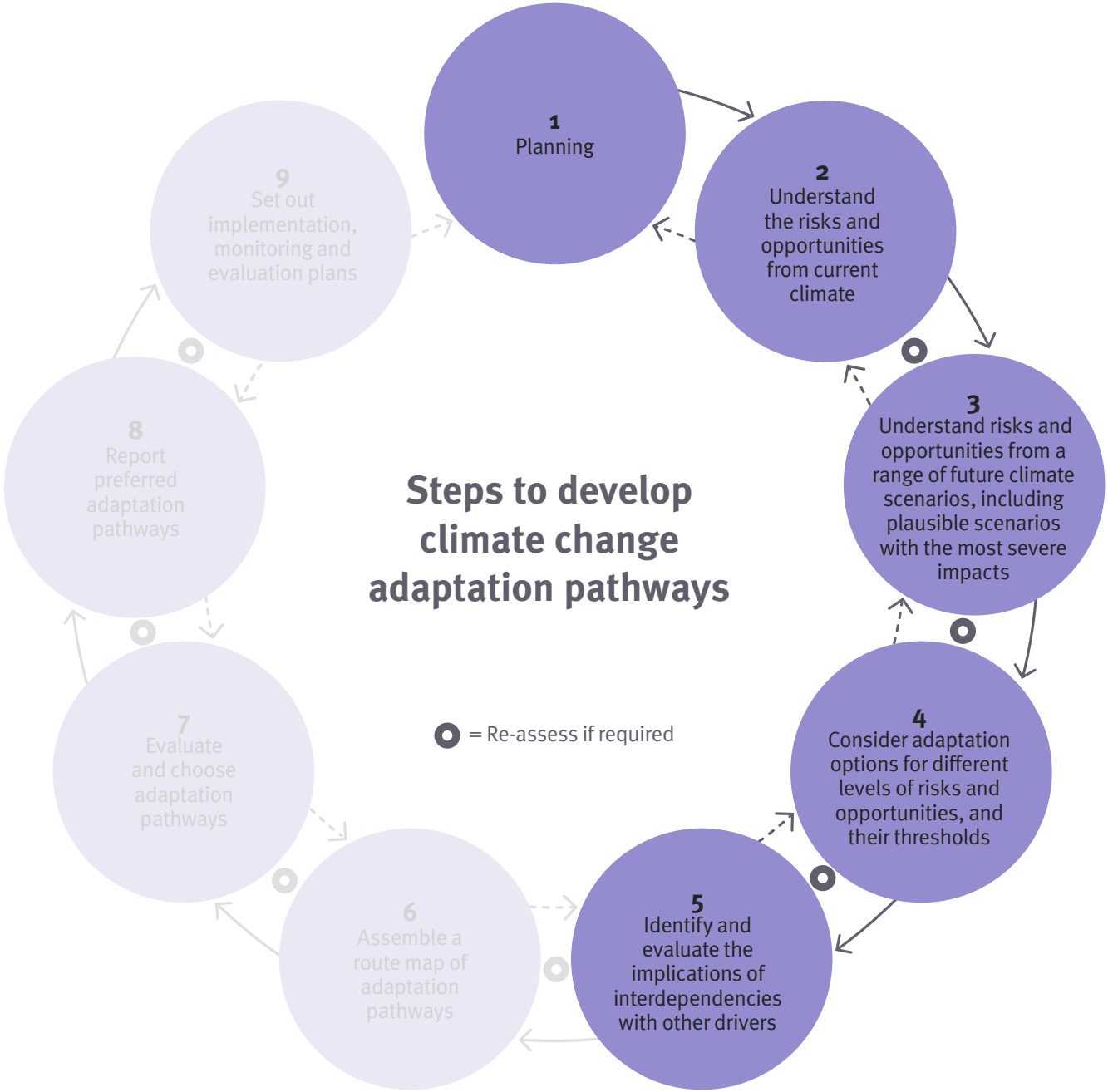

Figure 4: The elements of the nine steps covered by a RAPA

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Why are RAPAs useful?

Watch these reflections on the benefits of the RAPA process from the pilots.

West Sussex County Council – Benefits of the day

Wiltshire Council – Benefits of the day

Participants' post workshop reflections.

Action for the River Kennet – the rivers trust for the Kennet & Pang catchments

Marlborough Town Council

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1.4 How the guide was developed

This RAPA toolkit was piloted in three locations:

- Severnside – South Gloucestershire Council and West of England Mayoral Combined Authority
- Marlborough – Wiltshire Council
- Adur & Worthing – West Sussex County Council

The locations chosen offered the ability to focus on different issues and risks and helped us gather as wide a range of information as possible. The three cases are described in Annex 2 – RAPA pilots.

The insights from these pilots shaped this final version of the toolkit.

Exploring actions

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2 Scoping

Use this chapter to consider how to scope your RAPA.

A good scope will ensure your RAPA objectives are realistic and aligned with available resources, data and stakeholders.

Endeavour to understand the current situation and strategic context, before designing your workshop.

Consider what climate impacts and adaptation challenges need to be addressed.

Define the boundaries of the problem that needs solving; without this focus, discussions may lack clear direction.

During early scoping, consider the following:

- what is the geographic or thematic scope of the exercise?
- what sources of risk are being considered?
- are the objectives achievable given the data and expertise available?

This stage often involves iteration of the original objectives to make them realistic.

This ensures the exercise remains productive and delivers meaningful progress.

Engage early with key partners to scope the workshop.

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Box 1: Checklist for scoping a RAPA workshop

- ☐ Engage with key partners
- ☐ Define purpose
- ☐ Decide how to approach different sources of flood risk and hazards
- ☐ Understand data which can support the RAPA
- ☐ Decide who to invite
- ☐ Consider your role, post workshop

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2.1 Defining the purpose of your RAPA

What do you want the RAPA process to explore?

Defining this is essential before deciding who to involve. The RAPA process can address a wide variety of topics, such as:

1. How does flood or coastal erosion risk change for a community as climate change progresses?
2. The critical point at which current practices no longer provide adequate management of risk – referred to as 'thresholds'
3. Potential adaptation options once these thresholds are exceeded
4. Determining if new practices would have a different threshold. This may require further adaptation as flooding (or another hazard) continues to increase.

Prepare clear questions you would like participants to consider. For example:

- what actions can ensure the community remains safe?
- under what circumstances might adaptation efforts fail?
- when might alternate actions be necessary?

To hear what ambition West Sussex County Council set for its RAPA exercise, click on this video.

West Sussex County Council pre workshop interview

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What is the scale of your RAPA?

- your question could be applied to a single receptor, community, protected area, county, or sector e.g. transport, or supply chains. Carefully define your problem boundary
- scale will affect the outcomes of the workshop. Creating a RAPA for a larger area will mean less focus on specific details. Think about which areas within the problem boundary are most important.

What would you like to achieve?

Your RAPA could be focused on any, or a combination, of the purposes below:

- **developing technical understanding:** gathering technical experts will improve understanding of current and future risk and possible adaptation actions. This can help to inform more detailed investigations
- **strengthening partnerships:** a RAPA can effectively convene partner organisations to share perspectives, develop consensus and gain support to tackle a problem. This can help to inform the next steps for the group of partners, such as ongoing partnership working and governance arrangements
- **increasing awareness of the risks:** a RAPA session can highlight flood and coastal erosion risk management risks to local leaders and the need to take action.

Practical tip

Consult flood and coastal risk experts within Risk Management Authorities early on. Collaboration with Lead Local Flood Authorities (LLFAs) and the Environment Agency is key to:

- define a focused and actionable RAPA question
- identify and access the data needed to evaluate climate impacts and thresholds
- improve your ability to attract other stakeholders you want to participate
- work out how to present climate change information in a way that non specialists can engage with.

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2.2 Hazards and RAPAs

RAPAs focus on one climate hazard at a time. This facilitation guide focuses on different types of flooding and coastal erosion. All the examples given relate to coastal, sea level rise, fluvial and surface water flooding. RAPAs can also be used for other climate related hazards such as heat, drought and wildfire.

For places with different flood risks, it is best to hold RAPA breakout groups for each flood type. Later in the day you will need to examine if these risks interact with and amplify each other. See Box 2.

This approach helps participants understand individual risks and their combined effects when they occur simultaneously. This analysis may reveal that thresholds are reached sooner, so more adaptation actions are needed.

Box 2: Combining hazards

RAPAs assess single hazards, but combined hazards—such as sea level rise with increased peak river flow in tidal areas or tidal locking affecting surface water flooding—can also be evaluated.

- **conduct individual hazard assessments first**
- **hold a separate session** to consider interaction between hazards. If there are interactions, go on to consider combined impacts. Some thresholds may be reached sooner, and new impacts may emerge due to additional flooding
- **document combined impacts** in a separate RAPA diagram.

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2.3 Sources of information about current and future risk

Identify the information available to support the RAPA

Engage with local Environment Agency teams and the local authority. They will have a good understanding of the data available. Do this at the outset to allow better planning of the workshop.

RAPA is designed to capture the expert judgements of participants, using straightforward information to support the discussion. It is easy to gather too much information for the RAPA and present overly complex information.

Carefully consider how to communicate the climate change story in a clear, concise and impactful way. Advice on how to do this is in Section 3.4, Plan how to present flood or coastal risk information.

The amount of data you use may depend on the focus of the RAPA, i.e. technical or partnership building.

Consider these sources of information:

- **open data:** flood and coastal erosion risk data is available via gov.uk. Annex 3 describes the different publicly available resources with links
- **'Check your long term flood risk':** easily accessible current and future flood risk. These digital maps of England show flood risk for current climate and a future climate scenario. The future scenario uses the 'central' allowance for 2040-2060 (known as the '2050s' epoch). You will need other sources of information for higher climate change scenarios and beyond the 2050s. See Section 2.3.2 for guidance on scenarios. Examples are shown in Figure 5. This is especially useful for surface water risk
- **'Check coastal erosion risk for an area in England':** easily accessible current and future coastal erosion risk until 2055 and 2105. The maps use the 'central' and 'higher central' allowances for future risk
- **bespoke data:** Environment Agency teams may have local models for fluvial or coastal risk. LLFAs may have bespoke models for surface water flooding. Collaborate with these teams to understand what data is available. Models are likely to include various climate change allowances, which enhance understanding of future risk. They may also include more detail, such as depth data for a range of probabilities and climate scenarios.

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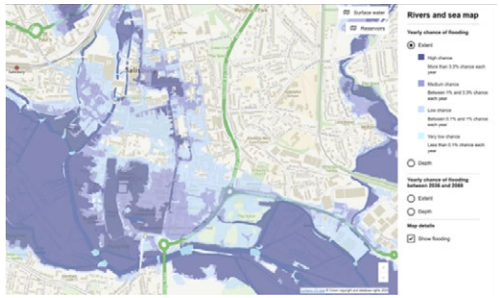
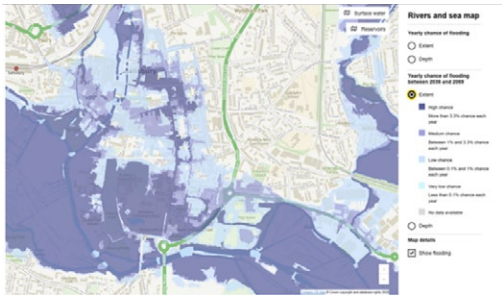
	Current flood risk	Flood risk 2040–2060
River and sea flooding		
Surface water flooding		

Figure 5: Environment Agency 'Check your long term flood risk' maps for Salisbury

Engaging with local Environment Agency and LLFA teams

To ensure you have the most relevant information, establish relationships with local Environment Agency and LLFA teams before the RAPA workshop.

Key questions to guide discussions with the local Environment Agency and LLFA teams:

- what model data is available? This could be a coastal model or hydraulic model
- what climate allowances are used in the model? Check model reports to find this information as this will help you choose climate scenarios
- is flow and level data available from the hydraulic model? If the latest climate change allowances are not used, a simple stage-discharge analysis can estimate flood levels for different increases in peak river flow
- what data is available from past flood events? Understanding the impact on vulnerable elements (receptors), such as people and infrastructure, and considering flood duration and depth, helps to understand today's growing risk. Compare observed and modelled levels to estimate the probability of recent flood events. You can then compare to climate scenarios
- when does flooding of receptors currently begin, and how it this likely to change? This helps tell the story of increasing risk over time
- what is the protection level of existing defences? Compare crest levels to model outputs to assess potential overtopping under future conditions.

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2.3.1 Using climate scenarios

To consider future risk, you need to understand climate scenarios.

Climate data usually offer several possible scenarios representing different future conditions. This accounts for uncertainty about the pace and intensity of climate change, depending on unknown future greenhouse gas emissions.

There are climate change allowance guidelines for projects, schemes and strategies and for planning (flood risk assessments). Consider the focus of your RAPA when you choose which guidance to use.

Local models often use these allowances to consider risk. These outputs can help you choose climate scenarios. Work with the Environment Agency or LLFA to understand bespoke data that is available.

It is good practice to explore impacts and adaptation options up to the highest available scenario. Highest scenario means the most extreme scenario which is plausible. This means:

- sea level rise: High++ scenario of 2.1m
- peak river flow increase: The upper end allowance found on the river flow allowances tab here
- peak rainfall intensity: The upper end allowance found on the rainfall allowances tab here.

In the RAPA workshop, you can then evaluate when thresholds might be reached up to this most extreme scenario. Box 3 illustrates the importance of this.

Always consider impacts up to the most extreme scenario, even if you don't have a modelled output. Typically you would present current day risk, the extreme scenario and a scenario in between these. This could be the central or upper central allowance.

At this stage, build an understanding of what data is available.

Section 3.5 considers how to present climate scenarios effectively.

2.3.2 What if information is missing?

If you find any information is hard to locate, make a note of it. Contact your LLFA or your local Environment Agency office to see if they can assist in locating the missing data. Keep a record of any information gaps so that they can be addressed at a later stage. Consider how these gaps might affect the RAPA workshop outputs and plan accordingly.

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Box 3: How impacts vary under different climate change scenarios

Climate change scenarios vary across regions. There can also be significant variation depending which allowances you use.

For example, sea level allowances by river basin district can be found here. In the South-East:

- the higher-central scenario projects 1.2m by 2125
- the upper-end scenario projects 1.6m of sea level rise by 2125
- the extreme High++ scenario of 2.1m.

You need to choose a scenario in between current day risk and the extreme scenario to account for this variation.

Climate change allowances for peak river flow and rainfall allowances also vary across regions and allowances. These can be found here.

Given the uncertainty of future scenarios, planning for the extreme scenario ensures the RAPA plan remains effective even if the extreme scenario is not fully realised. Ongoing monitoring during implementation will ensure appropriate measures are taken at the pace required by actual climate change. This enables tracking of thresholds and action triggers.

If climate change progresses rapidly the most extreme scenarios (or worst case) may require transformative options, such as relocating critical infrastructure like roads or railways, which have long lead times. Conversely, if monitoring suggests changes are happening more slowly, such measures may not be necessary. However, identifying transformative options ensures preparedness for any eventuality.

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2.4 Who to include

Selecting the right participants is key to a successful RAPA workshop. Attendees should bring the expertise and experience needed to achieve the workshop's goals. Remember the focus of your RAPA: **Technical understanding, strengthening partnerships, raising awareness or a combination.**

Key considerations in choosing participants:

- **developing technical understanding:** include experts who understand climate impacts and thresholds. Their input is essential for identifying when the system will fail and knowing when to act. Without this expertise, assessing thresholds for action can be difficult
- **strengthening partnerships:** consider input from a range of other participants, such as community groups, emergency responders and environmental organisations. Their perspectives are invaluable for developing effective adaptation pathways. However, they will depend on technical experts to define thresholds and identify viable options
- **increasing awareness of the risks:** involve decision-makers early in the planning process to ensure buy-in and informed discussions. Their participation signals that the issue being explored in the RAPA is a priority. Though RAPA is a high-level process and unlikely to result in immediate decisions, decision-makers add value to discussions about next steps, governance and potential partnerships. Their involvement can also help to secure others to commit to attending.

Box 4: Structuring RAPA workshops: a two-session model

To ensure balanced outcomes, you could adopt a two-session model, for example:

1. **Technical session:** focus on identifying risks, adaptation thresholds, and potential pathways
2. **Governance session:** address how to implement the technical findings and foster collaboration among stakeholders.

For example, Wiltshire's approach effectively used a second session to address governance challenges, ensuring greater clarity on roles and next steps.

Think carefully about the balance of technical experts and decision makers at each session. Technical experts and decision makers have a role to play at both sessions.

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Use judgement to balance the number of participants, considering:

- the desired outcome
- the budget, time and space available
- the complexity of facilitating a diverse group

A focused technical analysis or initial exploratory exercise might benefit from a smaller, focused group, while broader stakeholder engagement might require a larger, more diverse group. Technical experts will add value in all cases.

In some cases, a two-session structure may be needed to balance technical depth and governance priorities. In such cases governance discussions should be informed by technical input, with technical experts present to clarify key points.

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2.5 Post workshop role

Participants may expect you to coordinate actions arising from the RAPA workshop. To prepare for this, you should:

- consider, in advance, the role you would like to play in resilience planning after the workshop
- consider the resources required to setup and run a governance framework and identify gaps
- communicate your intended role and limitations at the workshop. This will manage expectations and encourage shared ownership of outcomes.

Listen to the importance of considering roles and responsibilities.

Why clarify roles early on

Box 5: Prepare for what follows the RAPA exercise

A key outcome of a RAPA is building collaboration among multiple stakeholders. The organisation leading the RAPA is often expected to continue to act as a convenor, facilitating coordination and engagement.

Before the RAPA event, assess your capacity and willingness to take on this role. During the process, focus on ways to share essential tasks through partnership with others.

Clarifying these responsibilities early will help maintain stakeholder commitment and momentum. Without this preparation, progress may stall. While details may evolve as lessons emerge, this groundwork will enable you to sustain collaboration and drive the initiative.

This is the end of Scoping. Move onto the Preparation section.

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3 Preparation

This section shares lessons for preparing for a RAPA workshop. The guidance follows the steps outlined in Box 6.

Box 6: Checklist for preparing a RAPA workshop

- ☐ Draft a purpose statement for the RAPA exercise. Include it in participant invitations.
- ☐ Create an engaging presentation to introduce the workshop (see Section 3.8).
- ☐ Decide who to allocate to working groups. This is important if the workshop will address multiple hazards or locations.
- ☐ Develop a detailed agenda outlining the flow for the day and specific activities.
- ☐ Plan how to present flood or coastal risk information.
- ☐ Decide how best to capture stakeholders' inputs effectively.

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3.1 Inviting participants

Write a clear summary of the purpose of the workshop to include in invitations. This will set expectations and give potential participants a good idea of what to expect. The summary will help you plan ways to gather input from interested invitees who cannot attend.

It is important to set clear expectations for participants. The RAPA process is a starting point to help build a shared understanding, identify immediate actions and plan for future steps. However, be aware that follow on steps will be needed to fully address the challenges.

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3.2 Planning the structure of the workshop

The basic structure of the workshop is simple, shown in Table 1. The structure will be influenced by your purpose and the people attending. You can adjust the structure to fit your purposes. There is space to do this after the group presentations.

For example, you may be assessing more than one risk source. You will need to include a combined impacts session.

Annex 4 provides three examples of RAPA agendas for different purposes. Annex 5 provides a more detailed agenda with facilitator notes.

Section 4 explains how to run each of these sessions. Read this guide in full before finalising the structure of your workshop.

Table 1: RAPA workshop structure

RAPA workshop structure
Introduction, objectives and RAPAs
Current and future climate risks
Adaptation actions
Development of the RAPAs
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Combined impacts / prioritisation / governance / next steps
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3.3 Session timing

Consider the total time available. You could choose a half or full day workshop.

Account for any constraints on participants or facilitators. Include breaks to suit the needs of the group, within the overall duration of the workshop.

Next, think about the level of detail required. For a broad overview, plan for less time per discussion. For in-depth discussions, allow more time for breakout groups and plenary sessions. The level of detail should align with the workshop objectives and participant expectations.

In Annex 4 there are three examples of different RAPA workshop approaches showing how different formats impact scheduling. Use these examples to decide whether your workshop should focus on high-level discussions in a shorter timeframe or adopt a multi-session, in-depth approach. It provides sample RAPA agendas which can be adjusted to fit participants' expertise, topic complexity, and the overall workshop scope.

Finally, build flexibility into the schedule. Include buffer time for discussions that may run over or for unplanned questions. A well-paced, adaptable agenda ensures the workshop meets its objectives without feeling rushed.

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3.4 Plan how to present flood or coastal risk information

A clear narrative enables participants to engage with the workshop. This should include the key factors driving the climate risks and their impacts. It enables participants to consider how risk will develop in the future and what responses might be needed.

In the scoping phase, you looked at what data is available to support the RAPA. Carefully consider how you are going to present the climate change story in a clear, concise and impactful way.

Do not overwhelm participants with lots of information. The amount of detail you use will vary on:

- the focus of the workshop, i.e. technical or partnership focused
- the participants, i.e. technical practitioners versus elected members

A simple narrative will allow participants to share their expert judgements.

3.4.1 Creating a clear narrative

FCERM and climate risk data can be complex and difficult to interpret, especially for those unfamiliar with it. Focus on making the data accessible and engaging.

Risk = impact x probability

The focus of the narrative should be on impact. This will help you to develop a simple narrative. Consider the following approaches:

- **impacts:** describe tangible and relatable impacts for plausible events. This will encourage discussion about practical responses. Focus on building awareness of the impacts in terms of depth and extent of flooding. Then discuss what such a flood would mean for communities, infrastructure, and services. (See 3.4.2.1: Areas previously flooded for more guidance)

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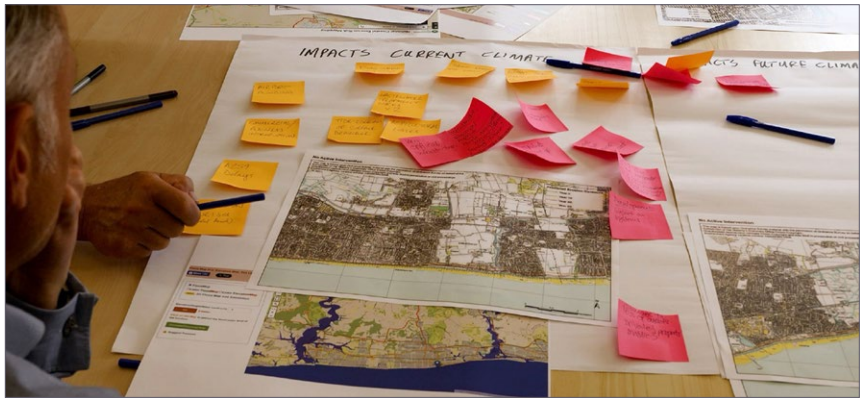
River working group



- **yearly chance of flooding:** keep the probability of flooding simple. It is easy to overcomplicate risk by using a range of Annual Exceedance Probabilities (AEP). Instead, present risk maps as a yearly chance of flooding using 'very low' to 'high':
  - **very low**: less than 0.1% chance of a flood each year
  - **low:** between 0.1% and 1% chance of a flood each year
  - **medium:** between 1% and 3.3% chance of a flood each year
  - **high:** more than 3.3% chance of a flood each year

  Decide on single probability and present the impact for current day and climate change scenarios. It also aligns with language used in the Environment Agency's Check your long term flood risk
- **scenarios:** climate change scenarios illustrate increases in sea level rise, peak river flow or peak rainfall intensity. Clearly define the climate change scenario(s) being considered in the workshop. Providing a basic narrative helps participants understand how risk may evolve. Clearly link these to the data you are presenting. If possible, provide maps showing the risk for each scenario. You do not need many scenarios, usually: extreme climate change, and something in between current day and this extreme scenario
- **flooding levels and impacts:** consider using data on peak flood levels, whether observed or modelled levels. Include data on damaging thresholds, which may be below peak levels, to illustrate potential impacts. For example, when property flooding starts or defences overtop. This can help participants understand how the frequency of exceedance will increase with climate change. It can also help to identify important thresholds
- **recent flood or coastal erosion events:** highlight previous flood or coastal erosion related disruption to infrastructure, communities, or ecosystems. The following section provides additional guidance.

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3.4.2 Flood or coastal erosion history

Recent events help participants understand the reality of flooding. In the Wiltshire pilot, the memory of Storm Henk (January 2024) kept the potential impacts at the forefront of discussions. In the Severnside pilot, newly installed flood defences successfully protected the area from recent storms, although some spray overtopping was a stark reminder that there is still a risk of flooding in today's climate.

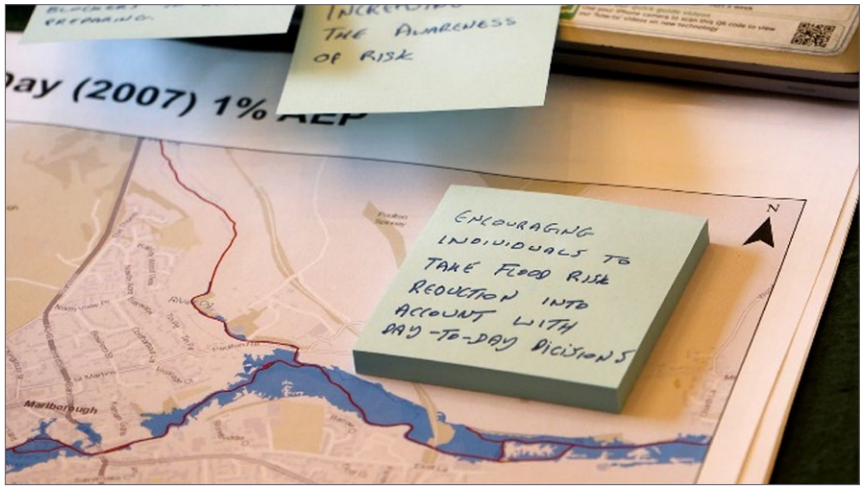
You may encounter areas with no recent flood history and which may currently be well-defended. If no recent events have occurred, make sure you still describe existing and future risk.

3.4.2.1 Areas previously flooded

Recent flooding can serve as a useful reference point for understanding future risks. Box 7 provides a case study. It illustrates how the probability of a repeat of a past flood event can help envision future flood risks under increased peak river flow. With support from the local Environment Agency, hydraulic model outputs were used to show:

- the approximate extent of recent flooding
- the projected depth and extent of future floods, accounting for climate change
- the threshold at which the first properties would begin to flood during a less severe event.

Use imagery and videos from recent events to bring to life the impact experienced.



3.4.2.2 Areas without flooding in living memory

A lack of past flooding does not mean an area is free from risk.

Flood maps can help participants visualise potential impacts by showing which areas could be affected and estimated flood depths under different scenarios.

Ask the workshop participants what is important to them. For example, what community assets would you save from flooding? Emotive questions will help participants visualise the impact of flooding.

Flood defences and other assets often prevent frequent flooding. To help participants assess flood risk effectively, consider what key information they need to know about these assets.

Consider the residual risk of asset failure. Defences may not protect in all scenarios and could also fail. This will prompt consideration of how to manage this residual risk over time.

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Box 7: Marlborough background information case study – flooding of the River Kennet

Marlborough conducted a RAPA exercise after experiencing an unprecedented level of damaging flooding. Comparing the flood event to a local model showed that flow was approximately in the 'upper scenario' for the 2020s epoch. This insight helped ground discussions, because it demonstrated that the flood could have been anticipated, making it easier for people to engage with future scenarios.

For the high-level RAPA, future risk was simplified to a scenario where peak flow 'doubles'. This was inspired by increase in peak flows doubling from the 2020s epoch to the 2080s epoch. While not technically accurate, this generalisation enabled a narrative about how risk could increase in the future. Participants were able to link the recent event and consider what the impact could look like with extreme climate change.

Table 2: River Kennet and tributaries management – catchment peak river flows

	Central scenario	Higher scenario	Upper scenario
2020s	10%	16%	32%
2050s	8%	16%	39%
2080s	2%	35%	76%

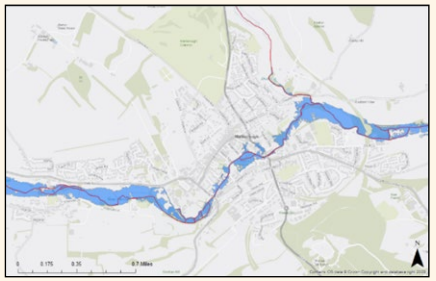
River flow for the recent flood

Future river flow to plan for is twice the level of the recent flood

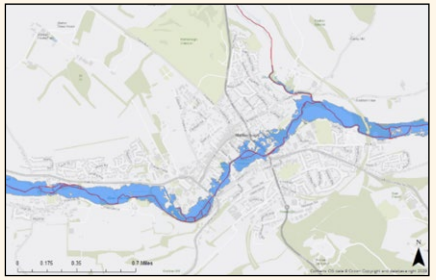
With local Environment Agency support, maps were used to show (approximately): the extent of the flood that was experienced, what the future scenario flood of 'twice' the intensity would look like and also the level at which the first properties would begin to flood.

The approach shows how RAPA can use approximate data to develop a narrative.

a. Starts to flood property



b. Approx. to January 2024



c. Needs considering (2080's upper scenarios)

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3.4.2.2 Areas without flooding in living memory *continued*

Key questions to consider:

- what is the current condition of the asset?
- when was it built and how long is it expected to last?
- was it designed to withstand climate change impacts? Can it be adapted or upgraded?
- what are the consequences if it fails?
- how might overtopping risks change over time, and what would the consequences be?
- what is the residual risk?
- what plans are already in place to respond to asset failure?

Providing a clear and balanced picture of these factors is essential. While the likelihood of failure may be low, the potential consequences could be severe. Similarly, while the overtopping risks may increase over time, their impacts might still be manageable with good planning.

3.4.3 Tailoring the risk narrative for different flood types and coastal erosion

Different types of risk require different approaches:

Sea level rise, coastal flooding and erosion:

- sea level rise is a long-term trend and permanent change. Risk will continue to increase over time. Sea level rise is addressed in Shoreline Management Plans.
- always explore impacts of extreme climate change up to 2.1m sea level rise for coastal flooding and erosion
- use the 'higher central' or 'upper end' for a scenario between current day and extreme sea level rise
- Gov.uk maps provide combined river and coastal flood risk data (see Section 2.3)
- the national coastal erosion risk maps (NCERM) provide estimated risk today and until 2055 and 2105. These account for sea level rise and present higher central and upper end scenarios
- Local Environment Agency teams can often supply additional coastal flood risk maps for more detailed insights (see Section 2.3). These are likely to use 'higher central' or 'upper end' climate scenarios to visualise risk.

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Box 8: Telling stories with maps

1. **Request maps:** ask the Environment Agency to provide maps showing flood boundaries, submerged areas, and the normal river or shoreline path
2. **Produce at least three maps:**
   a. Current flood risk scenario
   b. Projection for the furthest planning horizon (typically 2080–2100)
   c. An intermediate scenario between these two
3. **Select a high-case climate change scenario:** use the 'Upper' scenario from Gov.uk data. For other sources, consider a 4°C future (also known as RCP8.5 or SSP5-8.5). For coastal flooding, assess impacts up to 2.1m
4. **Illustrate flood probability impacts**: use a standard flood probability (e.g. 1% event or '1 in 100-year flood') to show how future climate change worsens flooding at the same probability level.

River (fluvial) flooding:

- flood events come and go but impacts will worsen with climate change. Focus on plausible events and impact. Be careful not to overcomplicate the story by using multiple probabilities
- peak river flow increase can be found here.
- 'Check your long term flood risk' maps provide a clear overview of current and flood risk up to the 2050s (see Section 2.3)
- local models often apply a range of climate change allowances to the 2080s epoch (2070-2125). This does not usually include extreme climate change
- to consider extreme climate change, you could:
  - use the 'Low' yearly chance of flooding event (0.1% AEP) to show how more frequent events could develop with extreme climate change. While this is a generalisation, it means you can show how risk could develop using river flood risk maps available on Check your long term flood risk
  - estimate a river level for an extreme increase in peak river flow. You can do this if you have modelled level (stage) and flow (discharge) data, using a stage-discharge relationship. This could help you compare flood risk today with an extreme increase in peak river flow. For example, you could estimate how much a 1% AEP flood level increases with extreme peak river flow. Remember to keep it simple when you present the narrative. Work with your local Environment Agency team to consider this approach.

Practical tip

If both sea level rise and river flooding are concerns, consider:

1. Developing separate RAPAs for each hazard
2. Hold a follow-on work group to compare them to identify where thresholds are met more quickly due to combined risks, or if additional impacts arise in areas where river and coastal flooding interact, e.g. tide locking.

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Surface water flooding:

- like fluvial flooding, surface water flooding is temporary. Risk will continue to increase with climate change. Focus on impact and be careful not to overcomplicate the story by using multiple probabilities.

  The Environment Agency's online maps provide an overview of current and future surface water flood risk up to 2050s (see Section 2.3). Environment Agency and LLFA teams may be able to provide more detailed projections of flood risk up to 2100, in line with flood planning guidelines (see Section 2.3).

Use the 'Low' yearly chance of flooding event (0.1% AEP) to show how more frequent events could develop with extreme climate change. While this is a generalisation, it means you can show how risk could develop using river flood risk maps available on Check your long term flood risk.

Groundwater flooding:

- consider how the duration of groundwater flood events may change over time. For example, wetter winters caused by climate change may lead to higher groundwater levels, and longer more protracted groundwater flood events. This could exacerbate events associated with river or surface water flooding
- considering groundwater alone may be difficult. Factor it into fluvial and surface water RAPAs as a contributing risk factor.

Consulting the Environment Agency and LLFAs to develop a clear and compelling narrative of change is valuable. Their expertise can ensure flood risk information is communicated effectively. Investing time in this process will enhance the RAPA discussion and outcomes considerably.

3.4.4 How to provide this information

Share information in accessible formats before and during the workshop.

Before the workshop

Share the information with participants in advance, ideally as a handout or digital document. Animations, imagery and concise summaries can be an accessible way to share a 'taster' in advance.

During the workshop

Ensure all participants can access the same information at the start of the workshop such as maps. Present the climate change narrative as part of your introductory presentation.

Formats for sharing information

- **online workshops:** use an online whiteboard to present information. This whiteboard can also serve as a shared space for capturing notes and ideas.
- **in-person workshops:** use workshop space and tables to display maps and other materials. Ensure the RAPA charts are visible to participants as you develop them.

By providing information in appropriate formats, you ensure everyone starts with access to the same foundational knowledge, improving engagement and supporting productive discussions.

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Box 9: Summary for planning how to present flood or coastal risk information

1. Be ready to explain current flood/coastal risk, the extreme (upper) climate change scenario and a scenario in-between. Be clear on the extent of increase in sea level rise, peak river flow or peak rainfall intensity, for each scenario e.g. 2.1m sea level rise in the extreme scenario.
2. Focus on impacts: choose a single probability and show how future impacts worsen at the same probability level for your scenarios.
3. Use visuals to support your narrative: you might like use maps to show impacts.
4. You could refer to recent events to help participants relate to your narrative. Include imagery e.g. photos of recent flooding.
5. Be very careful when considering the use of additional data such as projected flood levels. Use these sparingly and where they add value.

Remember to keep the narrative simple. If in doubt, use less data than more and rely on expert judgement.

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3.5 Running breakout groups

Where a workshop focuses on a single topic with up to ten participants, you may choose to have one breakout group where all participants work on the same exercise.

Larger workshops require multiple breakout groups. For example, when looking at different hazards in the same location or the same hazard across different locations. Breakout groups are a good way to manage several issues simultaneously. Here are some key considerations for productive breakouts:

Determining the number of breakout groups

- have a breakout group for each hazard
- consider the number of participants – you may need more than one breakout group for each hazard
- if you have more RAPA issues to cover than available facilitators, consider running extra workshops.

Group size and effectiveness

- **ideal group size:** six to ten participants, allowing for a balance of knowledge and expertise, while ensuring everyone can contribute
- **smaller groups:** may lack diversity, limiting problem-solving and creativity
- **larger groups:** require strong facilitation and clear structure to encourage participation and ensure all ideas are captured.

Assigning participants

- aim for a mix of expertise in each group
- ensure each group has technical specialists who can identify thresholds of current practice and suggest technical responses
- if some participants have expertise relevant to multiple groups, assign them where they can contribute the most. Find alternative ways to capture their input for other groups e.g. through follow-up discussions or shared write-ups.

Feedback to everyone

- the agenda schedules ‘Group Presentations’. This is time for each breakout group to present their findings to the full group. This ensures everyone has a chance to provide feedback and contribute their perspectives.

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3.6 Capturing inputs

For in-person workshops, use flipcharts and sticky notes to capture ideas and information.

Maps are helpful for visualising locations and their impacts. They also allow participants to add their input in a tangible way.

If you are running an online workshop, set up a digital whiteboard instead.

The types of information you should aim to capture are the same whether in person or online. These are shown in Figure 6 which shows an online whiteboard format. Links to this online white board are provided below the image.

Customise your online whiteboard to meet your specific needs. Having the features shown in Figure 6 means that you can capture and organise the information as you would with physical materials. This way, the process will be easy for everyone to follow, whether you're working in person or online.

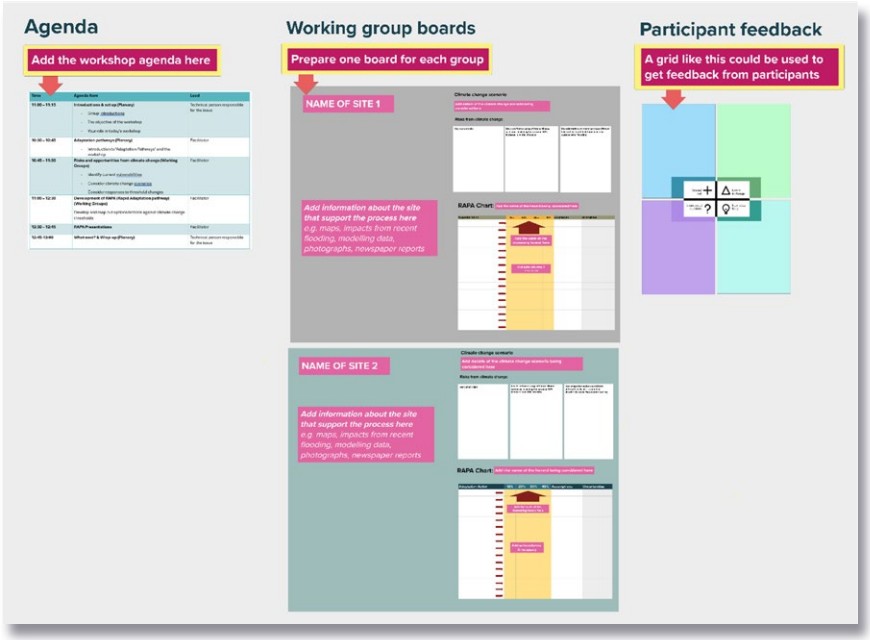

Figure 6: Example RAPA whiteboard set up (for section detail see Annex 6)

Examples of whiteboard templates can be found here (these links are to a MURAL whiteboard. Access is possible without sharing personal details):

Basic workshop online whiteboard template

Sea level rise/coastal flooding and erosion

River flooding

Surface water flooding

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3.7 Facilitator notes

It is good practice to develop facilitator notes on how you plan to deliver each section of the agenda. These notes serve as useful prompts for facilitators during preparing and delivery. They also provide a place to capture lessons learned for future improvements. See Annex 5 for an example.

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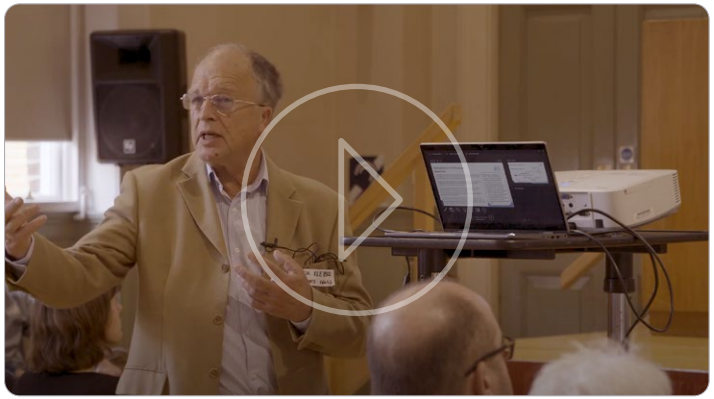
3.8 Introductory presentation

Prepare an engaging presentation to introduce the workshop. This should set the tone, clarify the workshop's purpose and provide essential context. Follow these key tips:

1. Remind participants that the RAPA process is not about producing a definitive action plan but about working together to understand future risks and explore potential responses
2. Your presentation should cover:
   - **agenda:** walk participants through the planned sessions
   - **background:** explain why this workshop is needed
   - **purpose:** introduce the workshop goals
   - **case study details:** provide key information about the area(s) being discussed
   - **RAPAs:** give a brief introduction to the concept
   - **workshop process:** outline how the RAPA process will unfold
   - **climate change scenarios:** briefly introduce the climate scenarios being considered (see point 3)

To observe an example of different steps in the introductory process please click on the following links:

Introductory presentation – climate change scenarios



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3. Presenting climate impact information:
   - use the narrative you prepared in 3.4 Plan how to present flood or coastal risk information
   - use maps on current and future climate impacts
   - show what current and future flooding could look like. If available, include photographs, video footage, newspaper reports or historical accounts of past flooding
   - highlight different areas are affected by flooding, e.g. coastal, surface water or river flooding
   - keep explanations clear and accessible, especially for participants unfamiliar with technical details. Use simple narratives and breakout discussions to add depth
   - state what climate scenarios you will consider. This should include the extreme (upper) allowance and a scenario between current day risk and this extreme scenario.

A template presentation is available on the Environment Agency's Adaptation Pathways Knowledge Hub.

This is the end of the Preparation section. Move onto following section, The RAPA workshop, to find out how to develop the RAPA.

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4 The RAPA workshop

Read this section for guidance on how to run your RAPA. You may find it helpful to refer to the Facilitation plan template in Annex 5, for further information.

You will start with the day with the introductory presentation to the entire group (see Section 3.8). If you have planned breakout groups, you will then divide up into these.

A good way to start is by asking people to introduce themselves, share their interest in the issue, and express what they value about the area at risk.

During discussions it is helpful to gauge the extent of the group's local knowledge and the values they associate with the area under discussion. For example, what importance do participants place on green spaces, heritage sites, or local infrastructure?

After introductions have been made there are two key steps in developing the RAPA:

1. Developing a broad overview of current and future climate risks along with potential adaptation options
2. Assessing adaptation actions by identifying the climate conditions under which they would be most effective and capturing the assumptions and uncertainties related to that assessment.

Table 3: RAPA workshop structure

RAPA workshop structure
Introduction, objectives and RAPAs
Current and future climate risks
Adaptation actions
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4.1 Current and future climate risks and options for adaptation

Before the workshop, set up three separate areas for participants to share their ideas. If your workshop is online, create these spaces on your virtual whiteboard. For an in-person workshop, use flip charts. These areas should correspond to:

1. current climate risks
2. future climate risks, including the most extreme scenario under consideration
3. potential adaptation actions.

Ensure each space is clearly labelled and set up to accommodate participants' contributions using sticky notes or other visual tools.

You will now capture inputs with each breakout group (see Section 3.6).

Capture thoughts

Invite participants to share their ideas for each section, to kick off the RAPA exercise.

Use sticky notes for their ideas. Ask them to contribute only one idea per sticky note. They may use many sticky notes though.

Ask participants to places their sticky notes on the respective sections you've prepared.

Key current risks	Key risks from a range of future climate scenarios, including the extreme 40% increase in rainfall intensity	Key adaptation actions to address different levels of risk (and their thresholds) for surface water flooding

Figure 7: Three initial steps in the RAPA development process for surface water flooding

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Watch a reflection from this session.

Coastal erosion risk –session description

Group discussion

After participants have placed their notes, bring the group together to review and discuss the ideas shared in each section. Encourage participants to expand on their contributions and explore common themes and areas of disagreement. Use this discussion to capture any additional insights that emerge. See Box 10 for practical facilitation tips.

Depending on the length of your workshop, allocate approximately 15–20 minutes per step, totalling 45–60 minutes for adding notes and group discussion across all three questions. However, the time needed will vary by group. Pay attention to the energy and engagement in the discussions to determine if extra time is needed. This stage is essential for gathering insights for the next phase of the RAPA.

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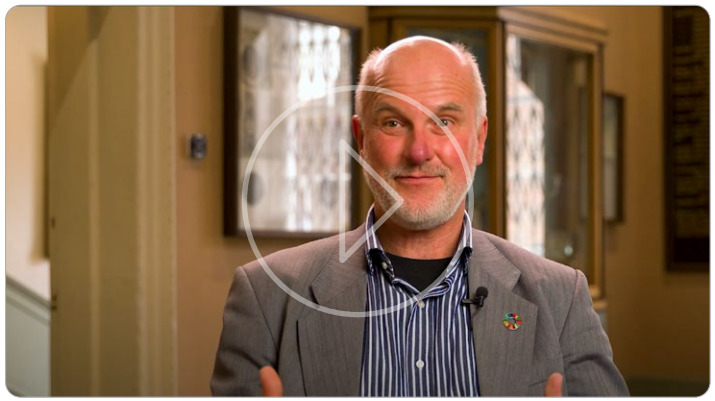
Box 10: Practical tips for facilitating this stage

- RAPAs focus on early scoping with a wide range of participants. Keep discussions at a high-level, emphasising broad, easily relatable impacts. Avoid diving into overly technical details; these are best addressed later in the adaptation planning process
- make flood risks and other climate impacts more tangible by using real, local examples. Maps and images are useful tools as they help to illustrate key points without relying on highly technical data that may be difficult for some participants to interpret While technical data underpins climate change projections, present this information in a way that is accessible and meaningful for non-technical specialists
- create an open and inclusive environment where participants feel comfortable contributing ideas. Encourage ongoing input as discussions evolve throughout the workshop
- recognise that participants may have differing opinions on the relevance, importance or feasibility of particular ideas. At this stage, aim to capture a broad range of perspectives. Include all credible suggestions to encourage creativity and inclusivity
- valuable insights often arise in discussions. To ensure key points are recorded, assign a notetaker or consider recording the conversation (with participants' consent). This helps preserve important contributions that might otherwise be overlooked
- if participants do not have the expertise to complete a full RAPA threshold analysis, use the session to identify current and future risks, explore potential adaptation options, and conduct a gap analysis. This will help pinpoint missing knowledge or expertise and provide clear next steps for the adaptation planning process.

To see reflections of a facilitator and participant at this stage in the process click on these links.

Participant perspective



Facilitator perspective

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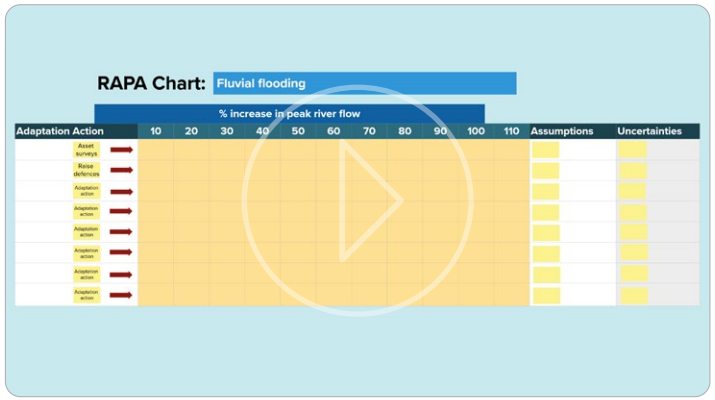
4.2 Developing the RAPA

Explore thresholds, uncertainties and assumptions to lay the foundations for your RAPA.

For in-person events, flipcharts should be dedicated to creating a chart that shows adaptation options – the 'RAPA Chart'. This is covered in more detail below. It should have space to capture:

- the adaptation actions being considered
- the climate conditions or thresholds that would trigger the need for each action
- the point at which an action is no longer sufficient and where additional measures will be required.



How to develop the RAPA chart – demonstration

Practical tip

Use a flipchart page for each of these. Stick them on the wall side by side and tape them together.

This chart helps participants to visualise how different actions are linked to changing climate conditions and where adjustments might be needed as those conditions evolve. It is a helpful way to illustrate the progression of adaptation over time.

For online events, create a comparable space on the whiteboard (see Figure 8). Links for whiteboard templates can be found on page 39.

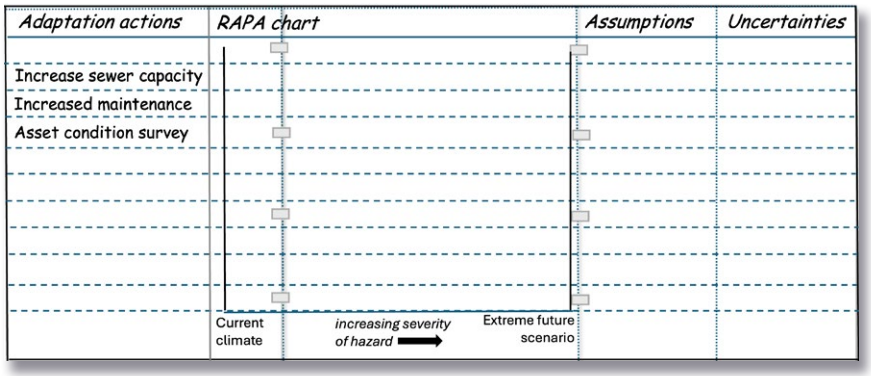


Figure 8: Flip chart display showing three flip chart sheets taped together to illustrate adaptation actions and the range of hazard intensities they address

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4.2.1 Move sticky notes

One by one, take the sticky notes with the adaptation actions identified during the third step of the previous exercise (Figure 7), and place them in the 'adaptation actions' space you have set up for this part of the exercise (see Figure 9).

4.2.2 Show conditions where actions are useful

Assessing actions for current climate:

For each adaptation action, ask participants, 'Is this action required today, under current climate conditions?' If so, draw a horizontal line (or begin drawing a horizontal arrow, if online), from the left-hand side of the chart. Refer to the section below 'Future climate scenarios' to address how to capture actions that are needed now, but may be required in the future.

Determining climate thresholds:

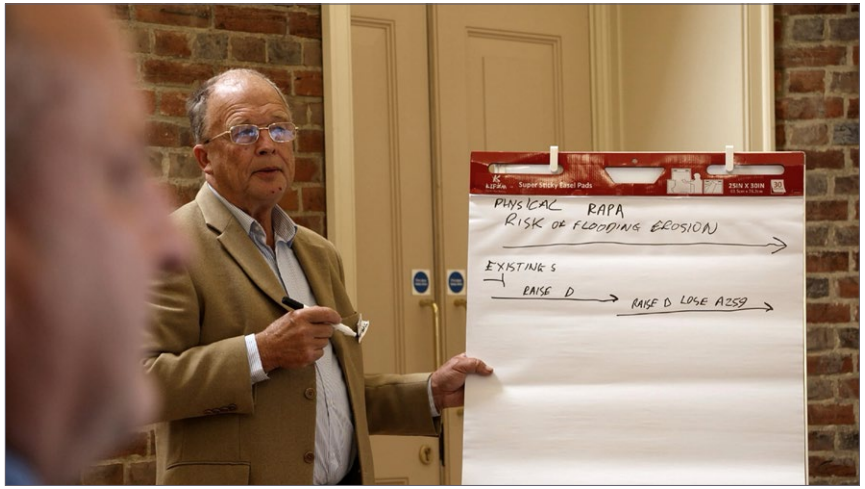
Ask participants to identify the climate threshold at which an action will need further adaptation to remain effective. This threshold is where the horizontal line on the chart should end.

If the next action is simply an upgraded version of the original action, start a new horizontal arrow along the same adaptation action line.

Extend this new arrow to the threshold where the upgraded action will also reach its limit and require further adaptation.

Future climate scenarios:

An action may not be needed today but will become relevant in the future. Ask participants to estimate the climate scenarios under which it would be introduced.



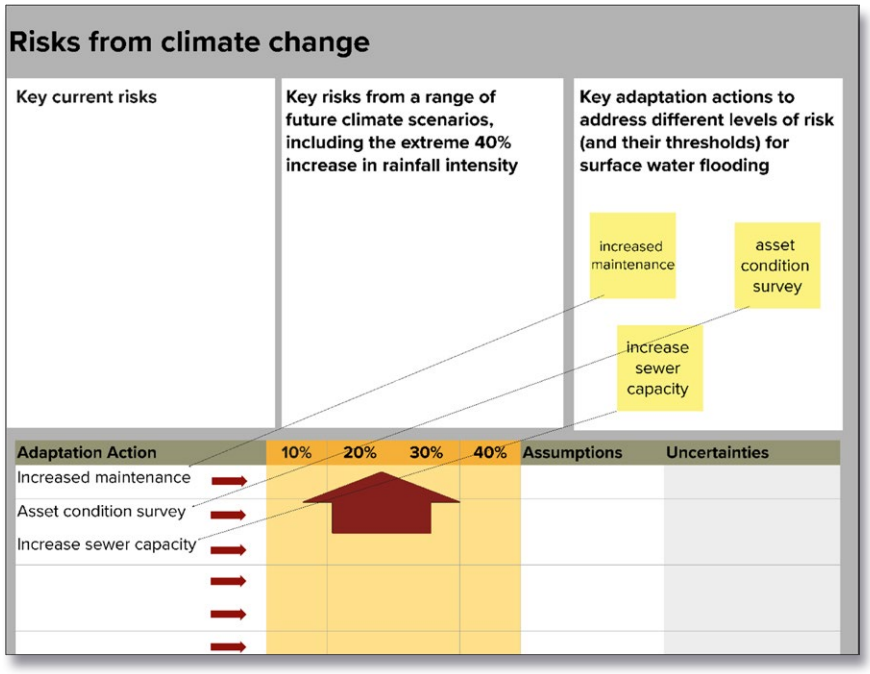


Figure 9: Illustrating how to move suggested adaptation options from the previous step to the adaptation options column in the RAPA chart

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Box 11: Facilitator tips for encouraging participants to identify thresholds

Focus on expert judgment, not exact science

- emphasise that thresholds at this stage are approximations. Encourage participants to rely on their professional expertise and experience rather than exact data
- the estimated thresholds can be investigated in more detail after the workshop.

Revisit climate scenarios

- revisit the climate scenarios discussed earlier and ask: *What changes as the climate changes?*

Use prompting questions

- *at what point does this infrastructure become unviable?*
- *how close was the last major event to exceeding capacity?*
- *what actions should be taken when a threshold is reached?*
- *what level of flooding would trigger new investment or a shift in approach?*

Link to visual aids

- connect discussions to maps and data. Example: *This map represents a 1m sea level rise – how would that impact your assets, operations or decision-making?*

Encourage cross-sector insights

- ask participants to consider how thresholds in their sector interact with others (e.g. roads, utilities, drainage, emergency services or operations)

Use real examples

- reference past events: *What if that flood was 20% higher? What would the impact have been?*

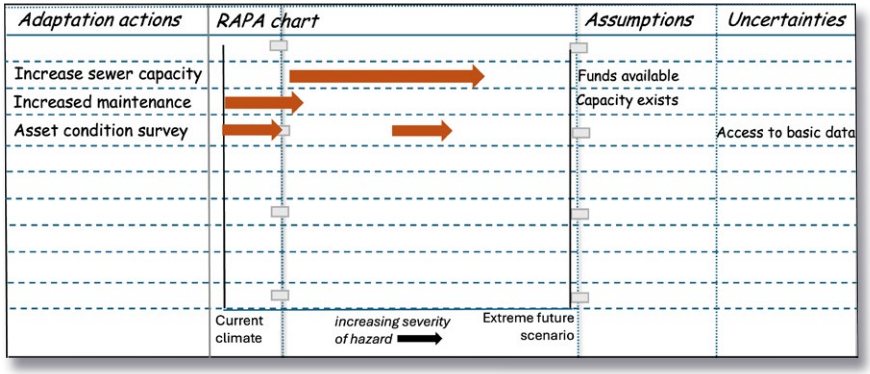

Figure 10: Example of a RAPA chart with arrows indicating viability of possible actions

This could be needed because a previous action has reached its threshold or a new risk emerging as climate impacts intensify. Participants should also define the thresholds at which this new action will no longer be effective without further adaptation.

Identifying these thresholds can be challenging so be prepared with prompt questions to guide the discussion (see Box 11).

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Completing the process for all actions:

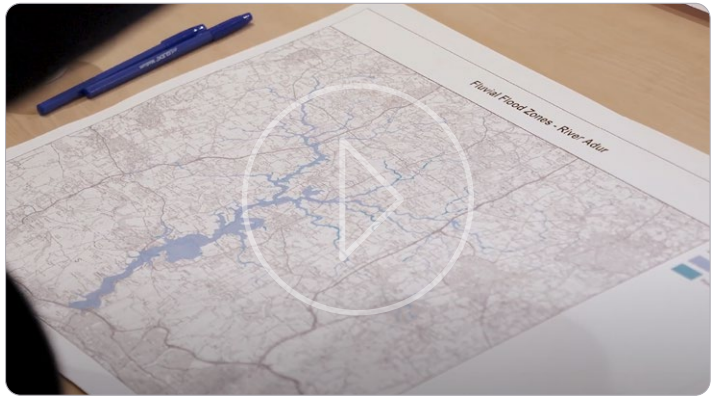
Continue this process for each identified adaptation action. As participants work through the steps, they may generate new actions not previously considered. Make sure these additional ideas are captured in the RAPA, ensuring a more comprehensive strategy.

4.2.3 Capture assumptions, uncertainties and knowledge gaps

The RAPA process relies on participants' best judgement, rather than absolute certainty.

- each proposed adaptation action will involve assumptions, uncertainties and knowledge gaps
- document these throughout the process to maintain transparency and provide clear reasoning for each decision.
- record key points as they arise or ask participants to write their thoughts on sticky notes and place them in designated areas (see Figure 11)
- opinions may vary on the relevance or feasibility of adaptation actions. Use the assumptions and uncertainties to explain why each action was included and how it connects to other ideas. This helps ensure all perspectives are acknowledged and considered in the RAPA process
- remember to clarify contributions during the session as they may be unclear after the event
- for online events workshops, consider recording and transcribing discussions (with participants' permission). Verbal insights can then be incorporated into workshop reports.

This video shows how the RAPA chart can be developed. The group identify that existing defences are likely to be effective up to a 40% increase in peak river flow. Natural Flood Management projects then mitigate for an additional 10%. The group then consider what actions might be needed beyond 50% increase in peak river flow.



Starting a RAPA exercise

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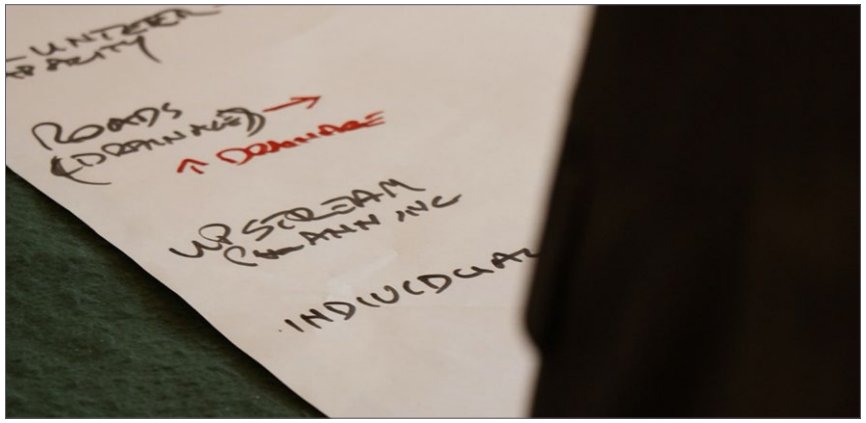

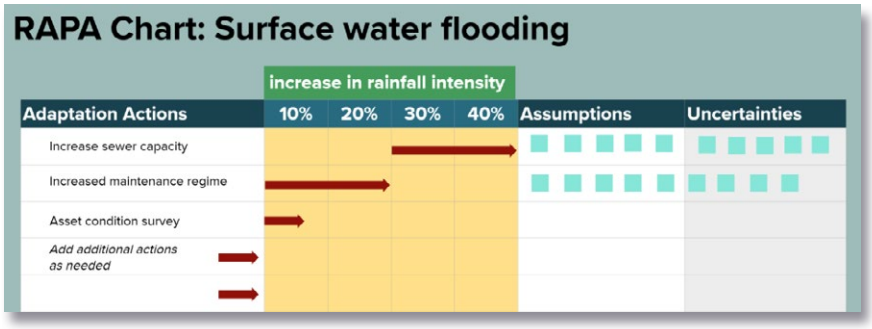

Figure 11: Capturing assumptions and uncertainties for adaptation actions

4.2.4 Backup activities

In some cases, participants may find it hard to identify thresholds, especially if a key technical specialist is not present to assess when assets, services, or key functions become compromised. If this happens, consider the following options:

- **proceed with available information:** consider adaptation actions only for current and future scenarios. Consult with technical specialists to refine the threshold analysis after the workshop
- **focus on collaboration:** use the session to discuss how the group might work together to address the vulnerabilities and adaptation actions identified.

A suggested methodology for this is provided in Annex 7.

For facilitator reflections on this phase of the exercise please click on the following link.

In this video of a feedback session, the assumptions and uncertainties captured as part of the RAPA process are clear to see.

Facilitator reflections – surface water flood risk

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4.3 Presentations

When multiple working groups are developing different RAPAs, ensure each group presents their findings to the larger group. This allows participants to see the broader picture, understand connections between different groups' work and identify overlaps and synergies.

Ask each working group to:

- summarise key insights from their discussion, highlighting important actions, gaps, and opportunities identified during the RAPA process
- explain how their findings inform planning, guide next steps and align with the workshop goals.

After each presentation, provide time for other groups to ask questions – whether for clarification or to explore findings in more depth. This discussion is a chance to refine ideas, gain new perspectives, and strengthen future planning.

Multiple risks

If multiple risks have been considered, use this session to:

- consider the risks together
- identify overlaps
- identify strategic opportunities.

For larger groups (e.g. 20+ participants), avoid a single large discussion which may be hard to manage. Instead mix participants from different groups into smaller groups to explore interacting risks. Each smaller group can then report back to the full room, ensuring diverse perspectives are heard while keeping discussions focused and engaging.

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4.4 Next steps

In the preparation phase, you considered what role you are able to take after the workshop. The participants will look to you to lead next steps. Being clear in advance what you are able to do will help you with this session.

In the final session, ask participants to evolve next steps based on the workshop discussions. Focus on:

- identifying gaps, such as missing stakeholders, or existing initiatives and opportunities that could strengthen adaptation efforts
- encouraging participants to identify where more information is needed or where further conversations should be directed. While RAPAs may identify many potential actions, this is still an early-stage discussion
- how to prioritise actions. You could do this using an impact-feasibility matrix (see Annex 7) or phasing actions into short, medium and long term through a prioritisation exercise. You may not have time to do this in the workshop, consider as a next step
- roles and responsibilities for maintaining momentum.

There is flexibility to adapt the last session to your specific needs and purposes

Recognise that defining specific actions may not yet be feasible if participants are not ready to commit. Instead focus on establishing a framework for continued collaboration and structured engagement.

This session often generates enthusiasm for action. However, responsibilities are spread across multiple organisations with different mandates. Without a clear framework to ensure coherence, then sustained and coordinated action is hard to achieve.

As noted in Section 2.5, participants are likely to look to you in your convening role. If you have considered in advance what you can offer, you will be in a better position to sustain the momentum generated by the RAPA workshop. Section 5 offers suggestions on maintaining momentum.

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To see an example of a ‘what next’ discussion, click on this link.

Next steps ideas and actions

To see the reflection of a local authority following the next steps session, click on this link.

Where are we now – Wiltshire Council

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4.5 Feedback on the workshop experience

Gathering participant feedback on the workshop experience provides essential learning for understanding what worked well and what didn't, and how future sessions could be improved. Feedback should focus on three key areas:

1. **The workshop structure:** assessing logistics and facilitation
2. **The value received:** assessing the relevance of discussions and outcomes
3. **Suggestions for improvement:** refining future workshops to meet participants' needs better.

Annex 8 provides some further guidance on collecting feedback.

Box 12: Feedback on the RAPA toolkit

Feedback from a wider range of case studies will evidence how the toolkit is being used. It can also inform future iterations of the toolkit.

Share your feedback with the Environment Agency by emailing AdaptationPathwaysProg@environment-agency.gov.uk

This brings you to the end of the RAPA workshop. You have considered current and future climate risks, adaptation actions and the thresholds at which they are needed. This has allowed you to produce a RAPA chart and consider next steps with your partners.

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5 Post workshop

To sustain momentum after a RAPA workshop, take some or all of the following steps:

- present the RAPA chart; see Annex 1 for examples
- provide a comprehensive summary of the RAPA workshop. Summarise key discussions, agreed next steps, timelines and assigned responsibilities for any actions. A template can be found on the Environment Agency's Adaptation Pathways Knowledge Hub
- secure commitment from key decision-makers. Define roles and responsibilities to establish accountability and agree how progress will be monitored, assessed and reported. Strengthen commitment by providing regular updates
- schedule follow-up meetings soon after the initial workshop to maintain engagement. Include a balance of original participants and new stakeholders as needed drive actions forward. Use these sessions to review progress, address barriers, and reinforce commitments
- translate insights into actionable steps, focusing on quick wins to build confidence and reaffirming the value of the workshop's outcomes
- use shared digital workspaces or regular progress updates to keep stakeholders informed and engaged. The Engagement HQ Platform currently being trialled by the Environment Agency is an example of a useful collaboration tool.

For an impression of one way of planning to build on the RAPA process and maintain momentum click on this interview.

Plans for using the outcome – West Sussex County Council

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6 Further information

You have reached the end of the RAPA toolkit.

Annexes 1-8 provide additional guidance and supporting information.

Annex 1: Example RAPA outputs

Annex 2: RAPA pilots

Annex 3: Sources of FCERM data

Annex 4: Sample agendas

Annex 5: Facilitator notes

Annex 6: Whiteboard templates

Annex 7: Additional activities

Annex 8: Feedback prompts

Acknowledgements are on page 81.

About is on page 82.

Find out more about the collaboration between ADEPT and the Environment Agency: Adaptation Pathways | ADEPT (adeptnet.org.uk).

Visit the Environment Agency's Engagement HQ page for a summary of the Adaptation Pathways Programme.

Template presentations and case studies can be found on the Environment Agency's Adaptation Pathways Knowledge Hub.

Provide feedback on the RAPA toolkit to AdaptationPathwaysProg@environment-agency.gov.uk.

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Example RAPA outputs

Figures 12 to 14 are examples of RAPAs for different issues and involving varying levels of stakeholder participation.

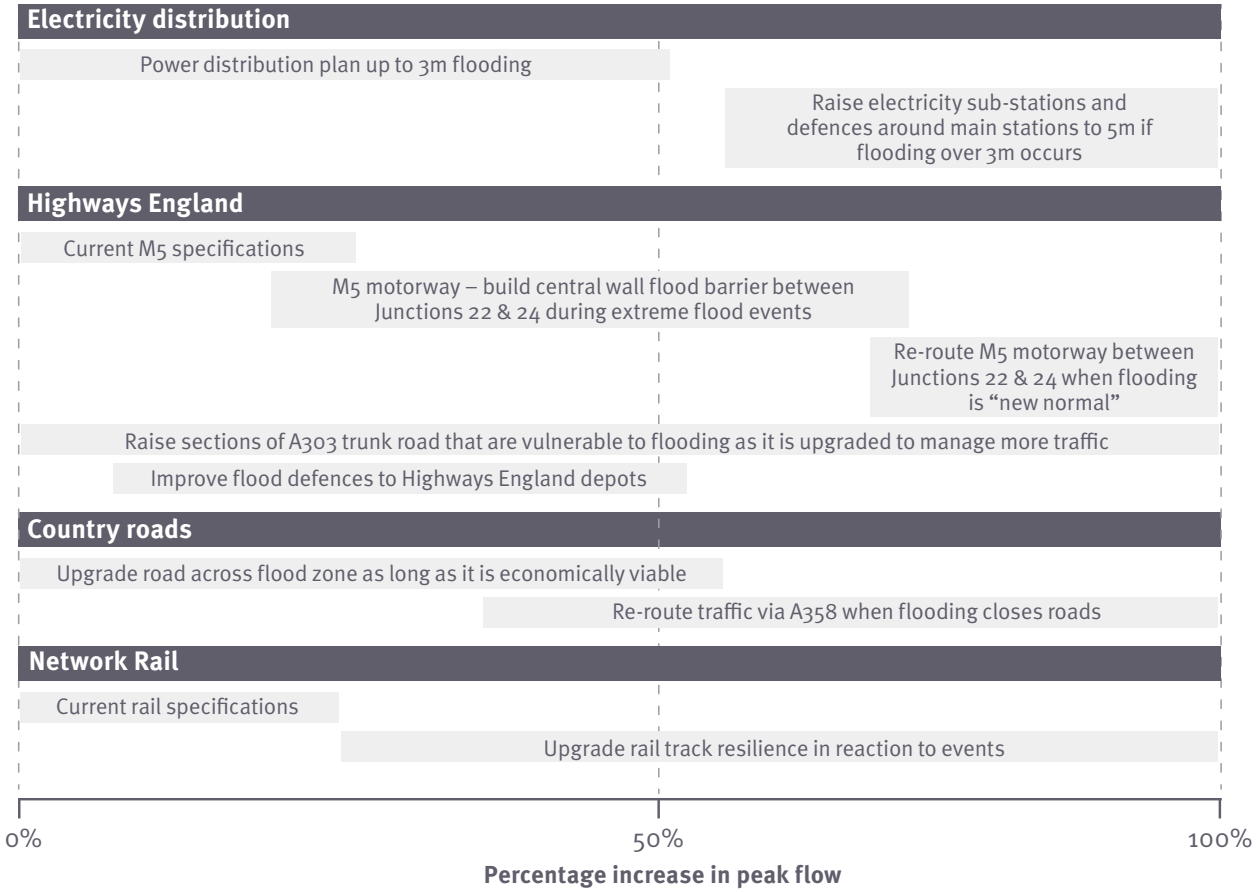

Figure 12: RAPA for management of fluvial flooding for transport

Workshop duration
6 hours

Participants

Transport infrastructure managers and related power supply that are at risk from current and future flooding

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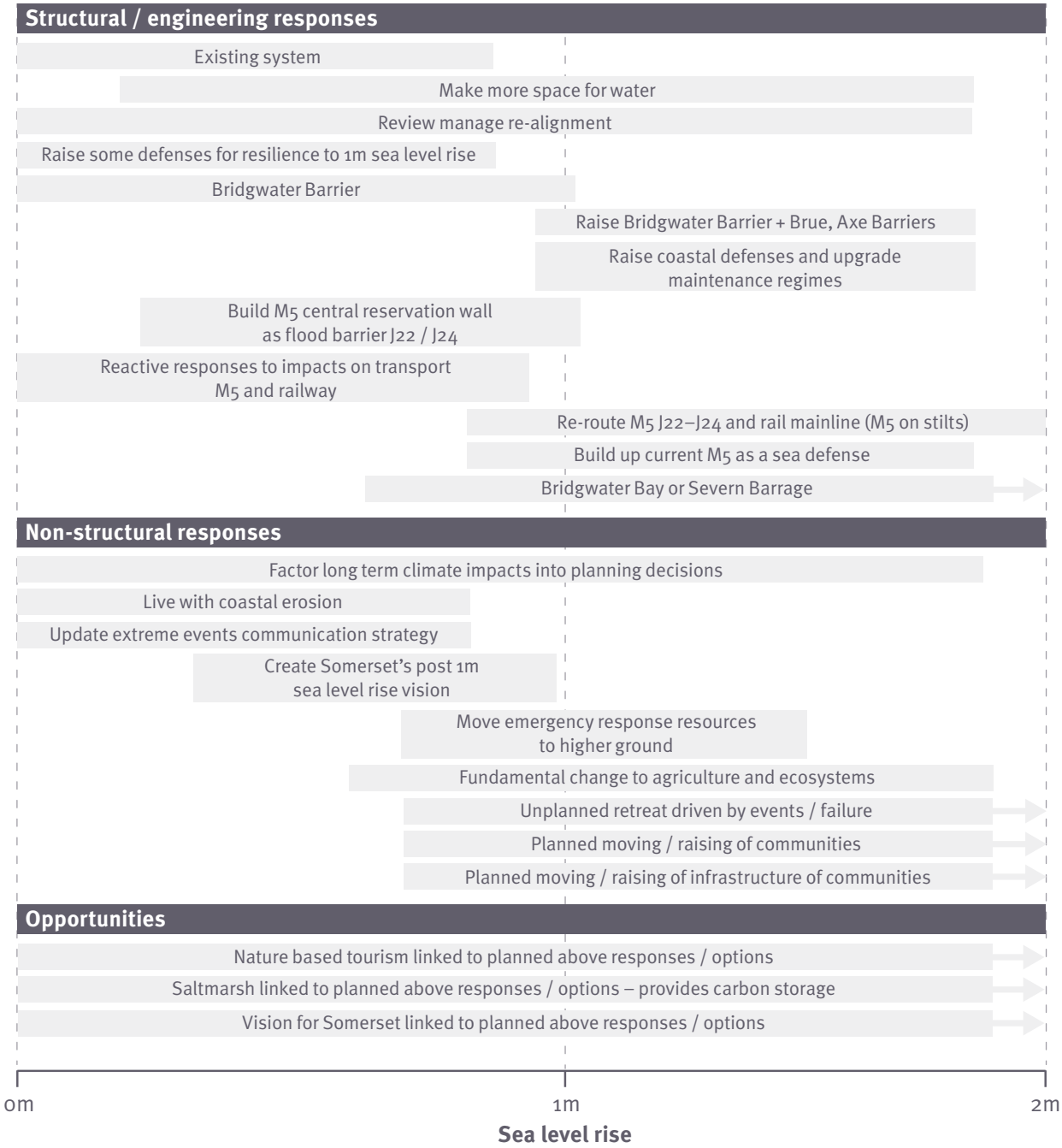

Figure 13: RAPA for management of county-level resilience to sea level rise

Workshop duration
6 hours

Participants

Organisations whose decisions influence the climate resilience of a flood-prone county i.e.

County Council Departments:

- Water and Flood Risk Management
- Civil contingencies
- Roads
- Environmental resources

Environment Agency

Energy companies: EDF, Western Power

Highways England

Internal Drainage Board

Natural England

Network Rail

Rivers Authority

Wildlife Trusts

Wessex Water

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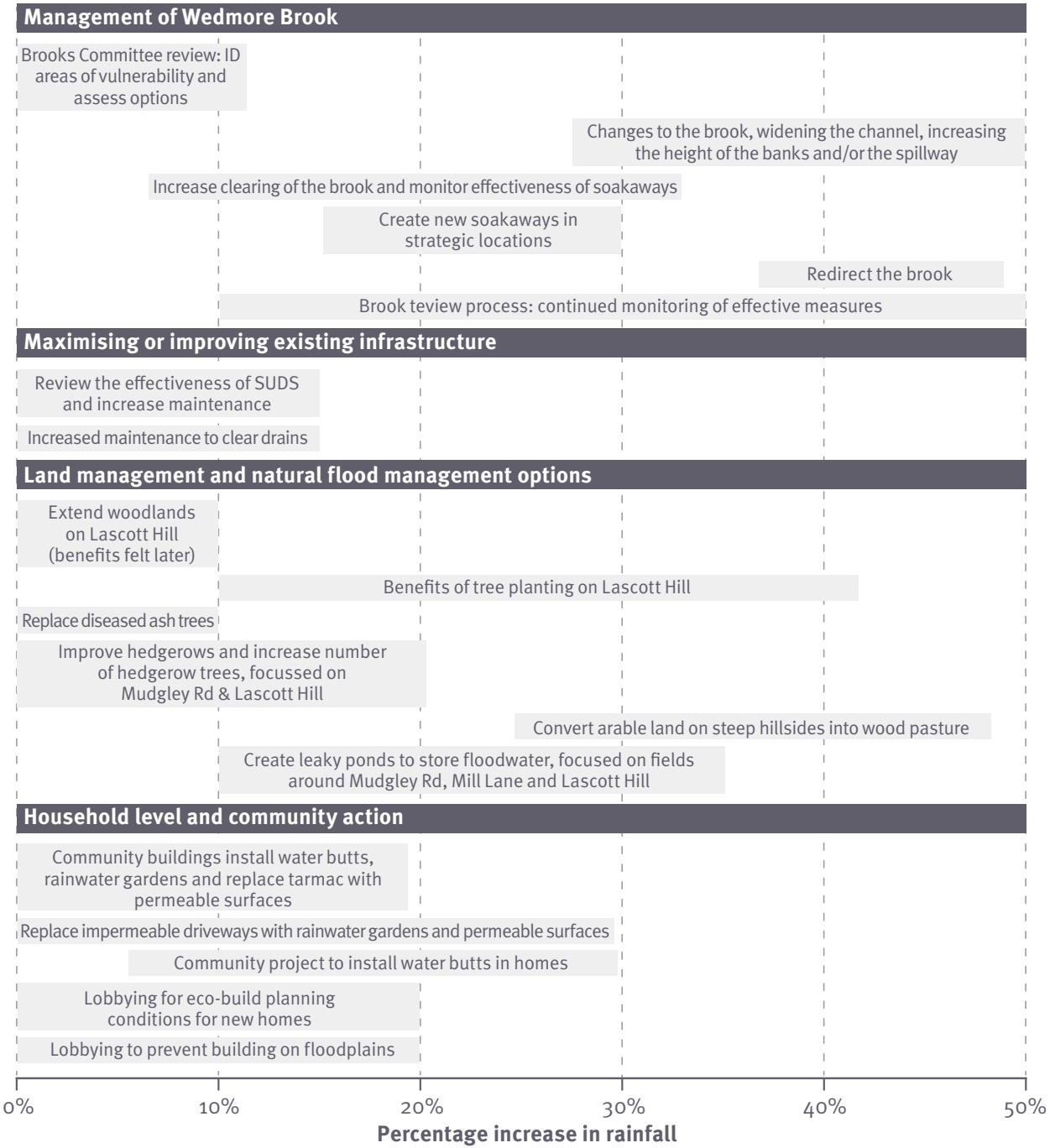

Figure 14: RAPA for community-level management of surface water flooding

Workshop duration
4 hours

Participants

Parish and district councillors, along with engaged community members in a flood-affected town, who understand risk factors and can advocate for landscape-based solutions

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RAPA pilots

Severnside, South Gloucestershire Council

The Severnside case examined the impact of coastal flooding on critical infrastructure, homes, and businesses, highlighting risks from rising sea levels and differences in flood risk treatment by insurers and the Environment Agency. Economic dependence on flood-prone areas has heightened regional vulnerability, with key national infrastructure at risk, as noted in the Avon and Somerset Community Risk Register. While new flood defences are designed to keep flood risk to an acceptable level until 2096, economic decline may occur sooner due to evolving insurance and mortgage sector risk assessments. The RAPA exercise helped stakeholders explore adaptation pathways, thresholds, and trigger points, informing an adaptation plan for the West of England and South Gloucestershire. This work aligned with ongoing projects, including the Severn Estuary Adaptive Pathways and the Local Industry Decarbonisation Plan, and contributed to the Local Authority Adaptation Reporting Power (ARP4) submission to DEFRA.

Adur & Worthing, West Sussex County Council (WSCC)

West Sussex faces significant climate challenges, including coastal, fluvial, and surface water flooding, coastal erosion, and water scarcity, all of which threaten infrastructure, homes, and local economies. As an upper-tier authority, West Sussex County Council works closely with districts and boroughs on resilience planning, particularly in high-risk areas like Adur & Worthing. The region's aging population, fragmented land ownership, and reliance on tourism further increase vulnerabilities, while limited financial and personnel resources hinder adaptation efforts. The RAPA exercise helped West Sussex County Council develop a collaborative resilience strategy, incorporating nature-based solutions, infrastructure investments, and emergency response planning. This could serve as a replicable model for local government cooperation, strengthening the case for sustained climate adaptation investment while ensuring flexibility in an uncertain future.

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Marlborough, Wiltshire Council

The Wiltshire RAPA exercise assessed how climate change is altering flood risk in Marlborough, identifying adaptation measures to enhance community resilience. Using data and local knowledge, particularly insights from Storm Henk (January 2024), the project evaluated fluvial, surface water, and groundwater flooding risks and explored responses such as natural flood management, infrastructure improvements, and community action. A multi-stakeholder workshop guided the development of adaptation pathways, addressing flood risk trends, resilience strategies, knowledge gaps, and groundwater management. The insights gained will support future decision-making and provide practical guidance for Marlborough's long-term climate resilience.

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Sources of flood and coastal erosion risk management data (FCERM)

There is a wealth of online flood and coastal erosion risk management (FCERM) data available via gov.uk. Table 4 describes the different resources and provides links to them.

Section 2.4.2 explains which climate scenarios to use for RAPA.

Table 4: Sources of information about flood and coastal erosion risk

Dataset	Description	Links
National flood and coastal erosion risk information	Flood and coastal erosion data is freely and openly available on the Defra Data Services Platform. This includes a new National Flood Risk Assessment (NaFRA) and a new National Coastal Erosion Risk Map (NCERM).	Defra Data Services Platform Support page
National coastal erosion risk	Provides coastal erosion risk for your area for three time periods: • Short term (until 2030) • Medium term (until 2060) • Long term (until 2100)	Check coastal erosion risk in your area – GOV.UK (www.gov.uk)

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Dataset	Description	Links
Long term flood risk	Use this service to find out: • the long-term flood risk for an area in England • the possible causes of flooding • how to manage flood risk This service tells you about an area's long-term risk from: • rivers and the sea • surface water • reservoirs • groundwater (where data is available)	Check the long term flood risk for an area in England – GOV.UK (www.gov.uk)
Flood map for planning	Sets out current flood risk information for development planning purposes.	Flood map for planning – GOV.UK (flood-map-for-planning.service.gov.uk)
Flood risk assessments: climate change allowances	When and how local planning authorities, developers and their agents should use climate change allowances in flood risk assessments.	Flood risk assessments: climate change allowances – GOV.UK (www.gov.uk)
Flood and coastal risk projects, schemes and strategies: climate change allowances	When and how risk management authorities should use climate change allowances for flood and coastal risk projects, schemes and strategies.	Flood and coastal risk projects, schemes and strategies: climate change allowances – GOV.UK
Map of peak river flows	Provides climate change allowances for peak river flow for three time periods (2020s, 2050s, 2080s) and three separate climate projections (Central, Higher Central, Upper End) for different management catchments across England.	Climate change allowances for peak river flow (data.gov.uk)
Map of peak rainfall	Provides climate change allowances for peak rainfall three time periods (2020s, 2050s, 2080s) and three separate climate projections (Central, Higher Central, Upper End) for different management catchments across England.	Climate change allowances for peak rainfall (data.gov.uk)

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Dataset	Description	Links
Shoreline management plans	These show how sea rise up to 1m will impact existing shorelines. It also shows what management strategies are proposed	www.gov.uk/guidance/shoreline-management-plans
River flow and rainfall data	Records from rainfall and river gauges can be found online. Using data from recent flood events can help to compare with climate change projections.	Hydrology Data Explorer

Note on sea level rise

When assessing the impact of sea level rise on coastal flooding, guidance recommends considering scenarios up to the High++ level, which projects a rise of 2.1m by 2100. Although this scenario is unlikely, it is still possible. Using High++ scenarios like this to 'stress test' systems can be a valuable tool in risk management.

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Sample agendas

Three-hour workshop agenda

Time	Session	Group size	Lead
10:00 (15 mins)	**Welcome and introduction** • Group introductions • Workshop objectives • Workshop agenda	Full group	Technical lead
10:15 (30 mins)	**Introduction to adaptation pathways** • Presentation • Questions and answers • Introduction to the working group exercises	Full group	Lead facilitator
10:45 (45 mins)	**Current and future risks and options** • Identifying current vulnerabilities • Considering future climate scenarios • Adaptation options available	Split into working groups	Facilitator(s)
11:30 (45 mins)	**Exploring thresholds, uncertainties and assumptions** • Exploring potential adaptation options and their thresholds • Noting knowledge gaps and assumptions	Working groups	Facilitator(s)

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Time	Session	Group size	Lead
12:15 (30 mins)	**Reporting back** • Each group presents their RAPA charts and key discussion points • Group discussion on themes emerging	Full group	Lead facilitator
12:45 (15 mins)	**Wrap up and next steps** • High-level summary of the day and what to expect next • Thanks for participation	Full group	Technical lead
13:00	**Close**		

Notes:

- Decide whether you need facilitators for each working group. These can be participants if needed but give them advance warning of what the exercise will cover. Think about what instructions you need to supply to keep the conversation on track.
- Provide working group facilitators with questions to prompt discussions.
- In a three-hour session, time is tight so encourage people to get tea/coffee and take a bathroom break when convenient during the working group discussions.
- Consider how working group and feedback sessions will be recorded.

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Five-hour workshop agenda addressing more than one climate hazard

In this workshop working groups have the opportunity to contribute to the development of more than one RAPA discussion. This can involve:

- focusing on the same hazard in the same location;
- focusing on a different hazard in the same location; or
- focusing on the same hazard in a different location.

The process is as follows:

- Each working group develops an initial RAPA for their assigned hazard and location.
- Once the initial RAPAs are drafted, the working groups exchange their RAPAs with another group.
- The facilitator remains with the original RAPA to provide context and explain the progress made so far to the new group.
- The new group reviews the work done by the former group in developing the RAPA and identifies and adds missing information, new ideas, and highlights areas where the logic or reasoning could be clarified or improved.

This ensures that each RAPA benefits from more perspectives and expertise, resulting in a more comprehensive and robust output. The role of the facilitator is to guide discussions to keep them focused and productive and ensure that all feedback is documented clearly.

Time	Session	Group size	Lead
10:00 (15 mins)	**Welcome and introduction** • Group introductions • Workshop objectives • What to expect	Full group	Technical lead
10:15 (30 mins)	**Introduction to adaptation pathways** • Presentation • Questions and answers • Workshop agenda	Full group	Lead facilitator
10:45 (45 mins)	**Current and future risks and options (RAPA 1)** • Identifying current vulnerabilities • Considering future climate scenarios • Adaptation options available	Split into working groups	Facilitator(s)

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Time	Session	Group size	Lead
11:30 (15 mins)	**Break**		
11:45 (45 mins)	**Exploring thresholds, uncertainties and assumptions (RAPA 1)** • Exploring potential adaptation options and their thresholds • Noting knowledge gaps and assumptions	Split into working groups	Facilitator(s)
12:30 (45 mins)	**Lunch**		
13:15 (45 mins)	**Working groups swap RAPAs (RAPA 2)** • Review and expansion of previous group's work	Working groups	Facilitator(s)
14:00 (45 mins)	**Reporting back** • Each group presents their RAPA charts and key discussion points • Group discussion on emerging themes and priorities • Capture ideas for maintaining momentum	Full group	Technical lead
14:45 (15 mins)	**Wrap up and next steps** • High-level summary of the day and what to expect next • Thanks for participation	Full group	Technical lead
15:00	**Close**		

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Five-hour workshop agenda including discussion of PESTLE issues

In this workshop participants also consider the political, economic, social, technical, legal and environmental (PESTLE) implications of potential adaptation options using the PESTLE framework. Using the PESTLE framework provides a well-rounded analysis that incorporates a broad range of factors, ensuring that adaptation options are practical, sustainable, and well-supported across all sectors. It also highlights the potential consequences of not adapting, helping decision-makers to prioritise actions that reduce long-term risks and maximise resilience.

The PESTLE framework areas are:

Political	How do adaptation actions align with current political priorities, policies, or potential shifts in government policy? How might political will or resistance affect the implementation of adaptation strategies? Do any political risks need to be managed?
Economic	What are the financial feasibility and cost-benefit trade-offs of adaptation options? What are the economic consequences of inaction, such as potential losses, increased costs, or missed opportunities? This analysis might help in securing funding and building a strong case for investment in adaptation.
Social	How do we ensure adaptation options are inclusive and beneficial to all parts of society? This means identifying potential social risks or inequalities, ensuring that adaptation measures do not disproportionately affect vulnerable groups, and highlighting where inaction might exacerbate social inequalities or reduce quality of life.
Technical	Are proposed adaptation options feasible given current technology, infrastructure, and expertise? Can we identify potential challenges in implementing adaptation and the level of innovation required? What are the implications of outdated or insufficient technologies if adaptation is delayed or ignored?
Legal	How can we ensure that adaptation measures comply with existing laws and regulations, spot potential legal barriers, such as liability issues or conflicts with regulations, and highlight opportunities for creating new policies or regulations to support effective adaptation? Where might failure to adapt lead to legal challenges or breaches of compliance?
Environmental	How do we ensure that adaptation options do not negatively impact ecosystems or the natural environment. What are the broader environmental risks of inaction, such as biodiversity loss or resource depletion, which may compound the challenges adaptation is trying to address?

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Time	Session	Group size	Lead
10:00 (15 mins)	**Welcome and introduction** • Group introductions • Workshop objectives • What to expect	Full group	Technical lead
10:15 (30 mins)	**Introduction to adaptation pathways** • Presentation • Questions and answers • Workshop agenda	Full group	Lead facilitator
10:45 (45 mins)	**Current and future risks and options (RAPA 1)** • Identifying current vulnerabilities • Considering future climate scenarios • Adaptation options available	Split into working groups	Facilitator(s)
11:30 (15 mins)	**Break**		
11:45 (45 mins)	**Exploring thresholds, uncertainties and assumptions (RAPA 1)** • Exploring potential adaptation options and their thresholds • Noting knowledge gaps and assumptions	Split into working groups	Facilitator(s)
12:30 (45 mins)	**Lunch**		
13:15 (45 mins)	**PESTLE analysis** • Consider PESTLE issues in relation to the adaptation options identified	Working groups	Facilitator(s)

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Time	Session	Group size	Lead
14:00 (45 mins)	**Feeding back** • Each group presents their RAPA charts and key discussion points • Group discussion on emerging themes and priorities • Capture ideas for maintaining momentum	Full group	Lead facilitator
14:45 (15 mins)	**Wrap up and next steps** • High-level summary of the day and what to expect next • Thanks for participation	Full group	Technical lead
15:00	**Close**		

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Facilitator notes

This Annex provides an example of facilitator notes for a five-hour workshop with two working groups.

Time	Agenda item	Lead	Group size	Facilitator notes
10:00 (15 mins)	**Welcome and introduction** • Group introductions • Workshop objectives • Your role in today's workshop	Local authority host or technical lead then lead facilitator	Full group	• Local authority host or technical lead welcomes the group and provides a brief introduction to the context for the day and what to expect. • Introduces the lead facilitator and hands over. • Ask participants to introduce themselves. Give clear instructions on what to say, e.g. 'Please say your name, role and what you hope to get out of the workshop today'. (Prime a colleague to go first so they can model how much to say.) • Go through the high-level objectives for the day. • Go through the agenda for the day. Allow space for questions. • Introduce the participant's role in a RAPA: ***e.g. 'Your role is to provide expertise on your area of the system.*** *We ask you to use your judgement to identify the climate conditions under which current assets, practices, or specifications will no longer meet their intended function. For each such situation, consider possible measures to maintain existing services. In some cases, you may decide that significantly changing the approach – such as relocating operations or closing them – could be an option. At this stage we are not expecting the perfect answer, just your best judgement.*

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Time	Agenda item	Lead	Group size	Facilitator notes
				Each participant brings their own expertise to this process. By combining your insights, we aim to create a comprehensive picture of what is possible in a changing climate, as impacts become more frequent and intense. We will also identify the actions needed to respond effectively. This is covered in the presentation in the next part.' *Explain what will be done with this output (if known).*
10:15 (30 mins)	**Introduction to adaptation pathways** • Presentation • Questions and answers • Workshop agenda	Facilitator	Full group	• Present the 'Introduction to adaptation pathways' slides. Allow time for questions. • Go through the process of developing a RAPA that will be used today with timings, again allowing time for questions. • If using, introduce the MURAL Board and explain the key functions needed to enable people to use it. • Establish working groups. If online, divide people into different breakout rooms. If in person, divide into the different working groups.
10:45 (45 mins)	**Risks and opportunities from climate change (working groups)** • Identify current vulnerabilities • Consider climate change scenarios • Consider responses to threshold changes	Facilitator	Working groups	• Address these 3 questions in the top right of the MURAL (if online) or on the flip paper (if face to face), e.g.: *In your group, use your individual and collective experience, supported by maps and any other easily usable and available material to scope the issues that need to be considered (in putting together a RAPA).* *First, list:* • ***Key current risks from your focus climate hazard, e.g. surface water flooding.*** *Capture findings on a sticky note and place it in the relevant area on the flip chart paper (or online whiteboard).*

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Time	Agenda item	Lead	Group size	Facilitator notes
				Then list: • ***Key risks from a range of future climate scenarios up to the severe scenario of (name the most severe scenario being considered) and notice thresholds of current practice.*** *Finally, list:* • ***Key adaptation actions for different levels of risk and their thresholds for your focus climate hazard.*** *Capture findings on a sticky note and place it in the relevant space on the flip chart paper (or online whiteboard).* • Use prompting questions as needed to get discussion going.
11:30 (15 mins)	**Break**			
11:45 (45 mins)	**Exploring thresholds, uncertainties and assumptions (RAPA 1)** • Exploring potential adaptation options and their thresholds • Noting knowledge gaps and assumptions	Facilitator	Working groups	• Remind the group of the instructions for the RAPA exercise. • Request one of the group to report back on key discussion points from the session and introduce the RAPA. • Use prompting questions as needed to get discussion going, e.g.: – *Are there climate change impacts that make current assets or services inefficient, ineffective, or redundant (i.e. the climate change thresholds beyond which things do not work?)* – *At these thresholds, what are the best options for enabling organisations to continue to meet their objectives?* – *Is there anything that is not resilient to the current climate?* – *What actions could make them resilient?* – *Under what conditions would current assets/practices no longer 'do their job'?* – *What options are there at that 'threshold'?*

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Time	Agenda item	Lead	Group size	Facilitator notes
12:30 (45 mins)	**Lunch**			
13:15 (45 mins)	**Swap RAPA issues (RAPA 2)** • Review and augmentation of previous group's work	Facilitator	Working groups	• Swap the working groups so that each can build on the work of the other. • Introduce the work of the previous group and ask the new group to review the work done by the former group in developing the RAPA. • As them to identify and add missing information, new ideas, and highlights areas where the logic or reasoning could be clarified or improved. • Request one of the group to report back on the additional work.
14:00 (45 mins)	**Feeding back** • Each group presents their RAPA charts and key discussion points • Group discussion on emerging themes and priorities • Capture ideas for maintaining momentum	Facilitator	Full group	• Each working group reports back. • Ask each group to succinctly: – *summarise the key insights from their discussion, focusing on important actions, gaps, or opportunities identified in the RAPA development process;* – *explain how these findings could guide planning or next steps and how they align with the workshop's overall goals*. • Once all working groups have reported back, ask the whole group to comment on areas of agreement and disagreement, common themes and any new ideas arising. • As time allows, ask the group about priority areas to develop, urgent actions and how to maintain the momentum built in the workshop discussions.
14:45 (15 mins)	**Wrap-up and next steps**	Local authority host or technical lead and facilitator	Full group	• Local authority host (or technical lead) sums up the day and next steps and thanks all for their participation. • Facilitator invites participants to provide feedback on the workshop by placing sticky notes on flip chart paper or on the online whiteboard.

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Whiteboard templates

Overview of basic set up for an online, two hazard RAPA workshop.

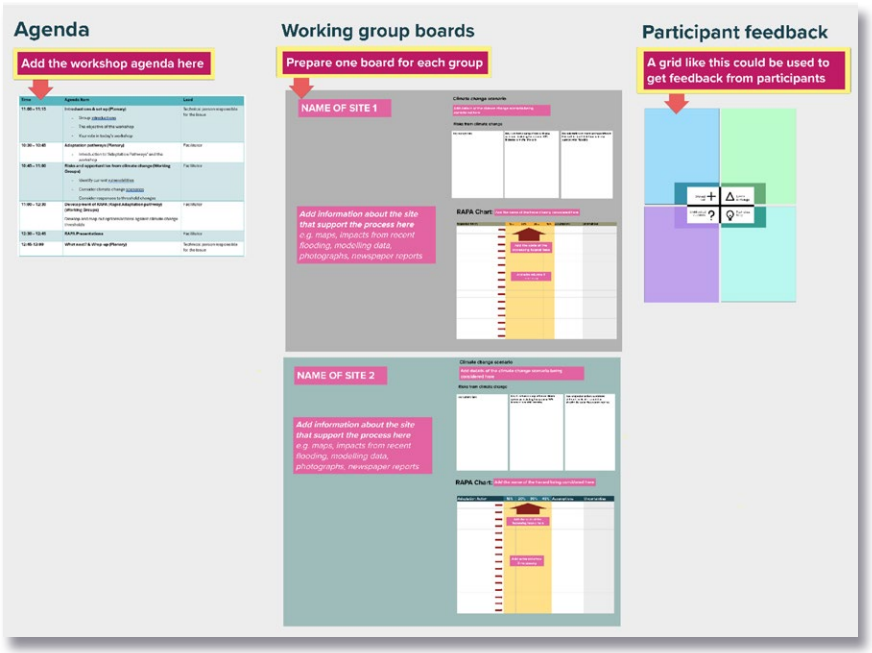

Figure 15: Overview of key components of a RAPA online whiteboard

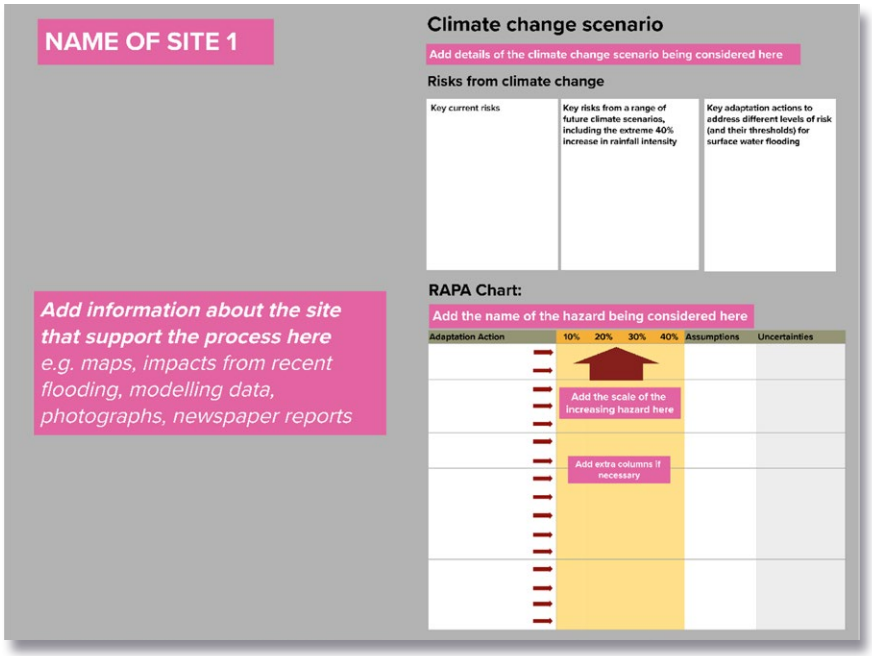

Figure 16: Breakout group board template

Component parts e.g.

1. **Agendas:** see Annex 4 for examples
2. **Breakout group board template** (prepare one board for each hazard being considered)

Mural board templates

Sea level rise/coastal flooding and erosion

River flooding

Surface water flooding

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Additional activities

A. Backup activity

If participants cannot identify thresholds, this 'backup' activity still provides valuable insights. It helps identify future impacts, adaptation options, and potential collaboration opportunities for near-term actions.

Key activities

1. **Defining actions and collaboration opportunities**

   Each organisation in the working group outlines the actions it is prepared to undertake. Other stakeholders can then indicate their interest in collaborating to enhance impact.

   Example: a river trust may propose a funding bid and invite partners to contribute expertise or resources.

2. **Identifying additional support and contributions**

   Organisations can highlight ways others could support adaptation efforts.

   Example: a roads department may partner with a nature-based solutions initiative to integrate 'slow the flow' measures around flood-prone culverts, reducing risk.

To learn about this activity and see an example of it in action, click on the following clips.

Plans for using the outcome – West Sussex County Council

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B. Impact-feasibility matrix

An impact-feasibility matrix can be used to prioritise the strategies proposed during a RAPA workshop based on their potential benefits and ease of implementation. Here **impact** is defined as the extent to which a strategy could improve flooding outcomes, with high-impact strategies delivering significant benefits. **Feasibility** refers to how easily a strategy can be implemented, considering available resources.

However, during the pilots, participants identified challenges to feasibility, from funding, available skills and capacity and competing priorities (the extent to which flooding was on key decision-makers' agendas). It was noted that even agreed upon strategies could stall for long periods if the issue was not a priority.

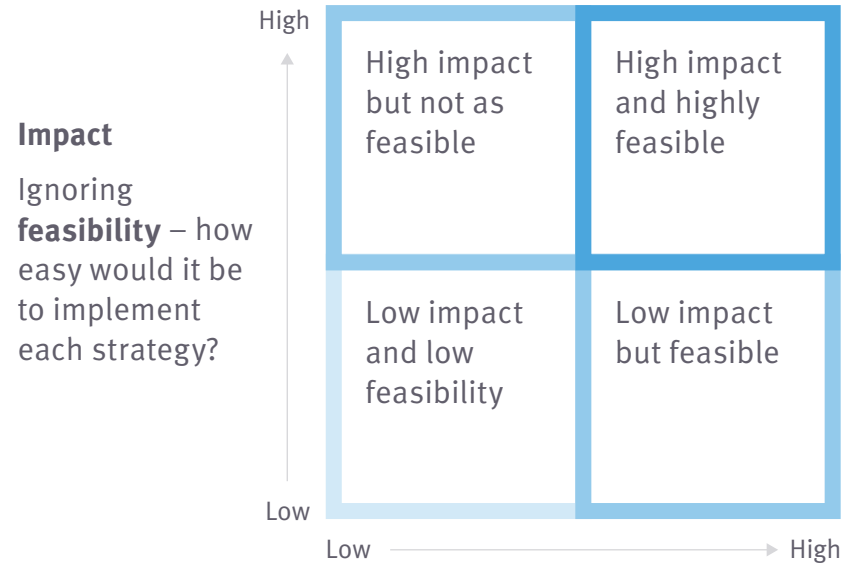

Figure 17: Impact-feasibility matrix

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Feedback prompts

Gathering participant feedback on the workshop experience is essential for understanding what worked well and what didn't and how future sessions could be improved. Feedback should focus on three key areas:

1. **The workshop structure and flow:** assessing logistics and facilitation.

   Possible questions:
   - How effective was the workshop structure at supporting meaningful and productive discussions? Please explain your view.
   - Were the activities and sessions appropriately sequenced to help you stay engaged and focused?

2. **The value received:** assessing the relevance of discussions and outcomes.

   Possible questions:
   - Did the workshop meet your expectations?
   - What did you find most valuable?
   - Were the discussions, tools, and activities helpful in achieving the workshop goals?

3. **Suggestions for improvement:** refining future workshops to better meet participants' needs.

   Possible questions:
   - What would you like to have been different?
   - Were there gaps in the content, unclear areas, or additional resources you needed in order to participate effectively?

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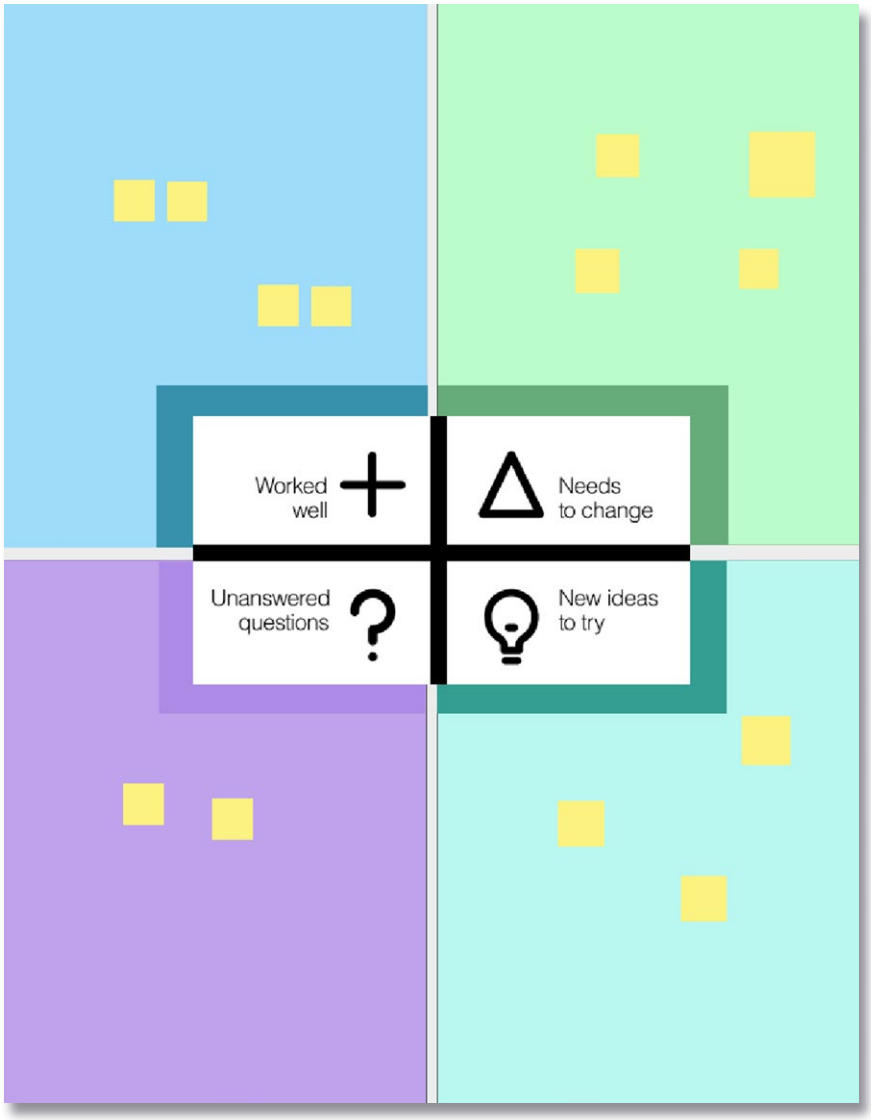

Figure 18: A framework for capturing participant feedback

To collect this feedback during a workshop, consider using a feedback matrix (see Figure 18). Divide the matrix into sections based on these key areas. Ask participants to write their comments on sticky notes and place them in the relevant section.

When reviewing the feedback, focus on recurring themes or ideas that inform improvements. Use this feedback to refine future workshops so they better align to participants' needs and the goals of the RAPA process.

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Project background and acknowledgements

This toolkit was produced through a collaboration between ADEPT and the Environment Agency.

ADEPT and the Environment Agency are working together to raise awareness and understanding of the adaptation pathways approach. Engagement with local authority place directors showed that councils need practical tools and case studies which demonstrate the application of adaptation pathway approaches. This Rapid Adaptation Pathway Assessment (RAPA) toolkit fills this need.

Thank you to Wiltshire Council, South Gloucestershire Council and West Sussex County Council for piloting the RAPA approach. Their input into the workshops and feedback has been invaluable in shaping the toolkit. Thanks also to Climate Sense, their expertise was central to delivering the workshops and developing the toolkit.

The work was funded by the £8m Adaptation Pathways Programme, part of the £200m Flood and Coastal Innovation Programme.

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About

ADEPT

The Association of Directors of Environment, Economy, Planning & Transport (ADEPT) is the voice of place directors who are responsible for providing day to day services including local highways, recycling, waste and planning, whilst preparing for the longer term. ADEPT is a membership based, voluntary organisation with members across England.

ADEPT members develop long term strategies, investment and infrastructure needed to make their places resilient, sustainable, inclusive and prosperous. They drive clean, sustainable growth, delivering the projects that are fundamental to creating more resilient communities, economies and infrastructure. These services include housing, environmental and regulatory services, planning, economic development, culture and highways and transport.

Environment Agency

The Environment Agency is responsible for taking a strategic overview of the management of all sources of flooding and coastal erosion. This includes, for example, setting the direction for managing the risks through strategic plans; providing evidence and advice to inform Government policy and support others; working collaboratively to support the development of risk management skills and capacity; and providing a framework to support local delivery. The Agency also has operational responsibility for managing the risk of flooding from main rivers, reservoirs, estuaries and the sea, as well as being a coastal erosion risk management authority. As part of its strategic overview role, the Environment Agency has published a National Flood and Coastal Risk Management Strategy for England. The strategy provides a lot more information designed to ensure that the roles of all those involved in managing risk are clearly defined and understood.

Climate Sense

Climate Sense helps organisations and sectors navigate the challenges of a changing climate. With over a century of combined expertise, we work closely with clients to transform complex climate data into clear, actionable steps. Our collaborative approach ensures that organisations not only understand the risks they face but also feel supported in building resilience. By strengthening adaptive capacity, we empower teams to tackle both immediate and long-term climate challenges with confidence, aligning their efforts with other key drivers of change and the needs of the people they serve.

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