Environmental Destination for Water Resources

Planning Guidance: for review as part of WRPG consultation

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We are the Environment Agency. We protect and improve the environment.

We help people and wildlife adapt to climate change and reduce its impacts, including flooding, drought, sea level rise and coastal erosion.

We improve the quality of our water, land and air by tackling pollution. We work with businesses to help them comply with environmental regulations. A healthy and diverse environment enhances people's lives and contributes to economic growth.

We can't do this alone. We work as part of the Defra group (Department for Environment, Food & Rural Affairs), with the rest of government, local councils, businesses, civil society groups and local communities to create a better place for people and wildlife.

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1 Introduction

Water keeps us alive, is vital for the economy and sustains plants and wildlife. Healthy rivers, lakes, wetlands and groundwater aquifers provide multiple benefits to society including the provision of water for households and businesses, for food production, for recreation and the production of energy. In managing water resources, environmental requirements must be considered alongside these uses so that the needs of society, the economy and wildlife can be met and maintained over the long-term.

Sufficient water is the most fundamental building block for the aquatic environment. Although significant improvements have been made, the water environment is still impacted by unsustainable abstraction. Approximately 15% of Surface waterbodies and 27% of Ground waterbodies have abstraction rates that are currently damaging the environment. A further 6% of waters that are currently classified as 'Good' under the Water Framework Directive could deteriorate unless action is taken to limit abstraction.

Climate change means this picture is likely to get worse. We are already starting to see the effect this might have - the summer of 2022 broke temperature records. UK temperatures exceeding 40ºC and annual average temperature of over 10°C were recorded for the first time. It was the driest summer in England since 1995. The UK's top 10 warmest years since records began have all occurred in the last 2 decades. The impact of climate change means that by the 2050s summer river flows may reduce in England by up to 33%.

Demand for water is increasing. Population and housing growth, food production, energy production and new water demand from data centres are just some of the major challenges faced in managing water resources sustainably. In meeting these challenges, we must ensure that the natural environment is protected and enhanced and in doing so we need to plan for society's water needs with those of the environment, together.

The effects seen in recent summers are a stark warning of what the future is likely to hold if we don't act: more restrictions on water use, reduced crop yields impacting food security, and significant environmental impacts such as fish kills and algal blooms. Without a healthy and resilient environment there will be risks to water supplies, restricted economic growth, reduced capacity to meet net zero targets and limited access to water to meet the needs of food production and energy security.

Taking a proactive long-term approach to environmental water resources planning is much more cost-efficient than waiting until negative impacts happen. Forecasting the need to change abstractions provides a longer lead-in time to implement cost effective solutions which deliver wider benefits to society. A 2018 report by the National Infrastructure Commission (NIC) suggests the cost of inaction would be almost double compared to the costs of building resilience over the next 30 years. Investing in improved water resource resilience makes sense; how quickly this investment will be called upon will depend on the pace of climate change and growth.

By considering future scenarios and government commitments to the environment, we can ensure that water resources are managed sustainably. Defining the long-term needs for water resource management to meet environmental requirements now and in the future means strategic, regional and local plans can take account of these needs when planning investment in new infrastructure, managing demand and reducing leakage. Planning for environmental requirements enables us to understand the environmental capacity for growth and the actions needed to support sustainable growth. This approach will enable more informed investment decisions, choices and prioritisation of action.

The Environment Agency terms the approach to assessing long-term environmental needs the *Environmental Destination for Water Resources* (we refer to this as environmental destination for short). More detail on the environmental destination can be found in the Environmental Destination Technical Report (2025).

This was published as part of the National Framework for Water Resources 2025 (WRNF25) which asks regional groups to work together to identify the best strategic options that will meet our future water needs. We want regional groups to build upon their existing achievements to deliver multi-sector planning and drive improvements to water supply resilience, water efficiency and demand management, cross sector engagement, and environmental protection. This includes adopting a long-term environmental destination to protect and improve regional water environments.

Please note: the Independent Water Commission, chaired by Sir Jon Cunliffe, has undertaken the largest review of the water industry since privatisation. The Corry Review has also made recommendations regarding the regulatory landscape This guidance is written without prejudice to any Government outcomes from these reviews.

2 Purpose and scope of the guidance

This guidance provides the approach to propose a regional environmental destination for water resources and the steps to get there. It is primarily intended for regional groups and water companies to support them in proposing the environmental destination for water resources for their region. It is intended to ensure that regional groups follow a structured and consistent approach whilst allowing flexibility to agree an environmental destination that reflects local and regional priorities. We expect regional groups to work with other abstractors and stakeholder groups in development of this and this guidance explains how others can get involved in the process. This guidance does not provide specific guidance for sectors other than public water supply – we will review the need for this as part of our engagement with those sectors.

The environmental destination is an important step in informing the direction of the overall regional plan. We expect that water company Water Resource Management Plans (WRMPs) will align with regional plans and for this reason this document is primarily written for regional groups and water companies but will be of wider interest to regulators, other abstractors and environmental stakeholders.

In this document ‘you’ refers to regional water resources groups and water companies, 'we' refers to the Environment Agency, and 'regulator' refers to all regulators with a significant role in developing regional plans, that is the Environment Agency, Ofwat and Natural England, plus for anything affecting Wales, Natural Resources Wales.

We recommend that you refer to our Environmental Destination technical report as you work through this guidance.

3 Roles and Responsibilities

3.1 Regulators

Environment Agency / Natural Resources Wales

The Environment Agency has a statutory duty to conserve, redistribute or otherwise augment water resources in England and to secure the proper use of water resources in England, including the efficient use of those water resources. We are a statutory consultee for WRMPs. We will work with you on your regional plans and agree the proposed environmental destination. We will maintain a close working relationship with each regional group while remaining independent throughout the planning process.

Natural Resources Wales has responsibility for the sustainable management of natural resources and delivering the well-being goals for Wales. It is a statutory consultee for water company WRMPs and the advisor to the Welsh Government for plans affecting Wales. It will advise regional groups in relation to regional plans that have sites that are within or affect Wales.

Natural England

Natural England has a statutory duty to ensure that the natural environment is conserved, enhanced and managed for the benefit of present and future generations, thereby contributing to sustainable development. This includes promoting nature conservation, protecting biodiversity and conserving and enhancing the landscape. It is the Government's official adviser on nature conservation and sites designated for national and international conservation in England.

Ofwat

Ofwat is the economic regulator of the water (and sewerage) sector in England and Wales. It is a statutory consultee for the water company WRMPs process. Its role includes ensuring that water companies can properly carry out and finance their functions. It expects that the investments identified through regional plans are efficient, affordable and provide value to water company customers.

3.2 Regional water resources groups

Regional water resources groups are established to help contribute to resolving the national water resources challenge we face, as articulated in the Water Resources National Framework 2025. They have an important role in helping to identify how best to provide an efficient, sustainable and resilient supply of water for all water users in their region over at least the next 25 years. This includes developing and refining a long-term environmental destination.

Regional groups will need to understand environmental requirements to inform investment decisions. They will work with others to develop and refine a regional environmental destination for water resources, ensuring no deterioration, to address abstractions which are currently damaging the environment and protect and improve the water environment in the context of future pressures**.**

3.3 Water companies

Water companies have a statutory duty to supply water and to prepare and maintain a WRMP. They will need to work with regional groups, regulators and others to agree an environmental destination. Water company WRMPs will need to reflect and support the achievement of this destination.

3.4 Water company planning

Water companies have a statutory duty for public water supply. They must prepare a WRMP every 5 years setting out how they intend to balance the supply and demand for water over at least the next 25 years. For water resources environmental planning consideration they should consider a longer planning horizon if longer term impacts/demands may influence options they put forward to meet current regulatory requirements.

Water companies must reflect the regional plan where relevant in their WRMPs unless there is a clear justification for not doing so included. This will ensure alignment with the regional plan, enabling achievement of the regional environmental destination. They should explain in their WRMPs how they have taken account of the regional plan and how it informs their preferred programme. When developing their supply forecast, water companies should account for the impact of changes to abstraction licences required to ensure sustainability and meet the regional environmental destination, as set out in the Water Resources Planning Guideline (WRPG). They should discuss any deviations from the regional plan with the Environment Agency.

3.5 Relationship to Water Industry National Environment Programme

The Water Industry National Environment Programme (WINEP) is an important mechanism for achieving sustainable abstraction. It is a set of actions that we require water companies operating in England to complete which can include changes to abstraction licences held by water companies. The WINEP is included in water company business plans, forms part of their Asset Management Plan and is considered by Ofwat in the determination of water company prices. Defra, Ofwat and the Environment Agency will review the WINEP ahead of the next periodic review (PR29) with the aim to make it more outcome focused and deliver greater benefits to the environment.

Before the Water Resources National Framework 2020 (WRNF20) was introduced, planning usually only considered solutions over a short timescale and local geography. Issues which required longer term regional scale solutions were often left for the future, whilst short-term solutions for this scale of deficit often proved too difficult or too expensive resulting in slow progress towards environmentally sustainable abstraction.

Following the introduction of WRNF20 we saw a huge step towards achieving environmentally sustainable abstraction. The priority in the short-term is to continue to protect and improve the environment to meet current environmental objectives. Each five yearly Water Industry Price Review a subset of solutions to accommodate abstraction licence reductions likely to be deliverable in the next 5-10 years will be put forward for funding. We will use the WINEP to formally request water companies to make changes to protect and improve the environment for the appropriate investment period.

Environmental destination in regional plans sets out the pathway to sustainable abstraction. The WINEP delivers more immediate improvements and acts as a stepping stone (along with successive WINEPs) towards delivering longer term environmental objectives.

Efficient longer-term planning and investment will enable more action to be taken compared to taking a short-term approach. As progressively more actions become deliverable through successive WINEPs the planning approach is forging a route to achieving the ‘destination’, where all current unsustainable abstraction has been addressed to meet environmental objectives.

3.6 Relationship to River Basin Management Plans

River Basin Management Plans (RBMPs) set out the environmental objectives for all the water bodies within a River Basin District and how they will be achieved. They are reviewed and updated every 6 years and show progress towards delivery of the overall objective of good ecological status. The regional plans will need to be informed by the environmental objectives. Similarly, we expect that outcomes from the work of the regional groups on environmental destination will inform future rounds of RBMPs or their successors.

4 What is the Environmental Destination for Water Resources?

- The Environmental Destination for Water Resources identifies where, and by how much, water abstraction needs to change to achieve and maintain a healthy water environment, both now and in the future.
- The environmental destination applies in England and is developed by defining the long-term environmental outcomes to ensure abstraction from rivers, lakes, wetlands and estuaries is environmentally sustainable, both to address current unsustainable abstraction and future pressures.
- The environmental destination calculates 'the gap' to meet current and future environmental outcomes (where and by how much abstraction may need to reduce) to enable environmentally sustainable abstraction. To do so, the environmental destination sets out a range of future water needs for the environment, from current requirements to full government commitments (referred to as environmental planning scenarios).
- This range captures the estimated size of the environmental water requirements for water resources planning to resolve.
- We want these estimates to be improved with better evidence and local information; this will be a continuous endeavour.

4.1 What are the environmental planning scenarios?

For the Water Resources National Framework 2025 we have developed three environmental planning scenarios in addition to our baseline analysis of current unsustainable abstraction. These planning scenarios consider a range of environmental requirements which are used to understand current and future abstraction pressures. Our Environmental Destination Technical Report describes these scenarios in detail. In summary they are:

Baseline – current regulatory requirements in today's climate

This describes current unsustainable abstraction.

Changes to water abstraction are based on our current regulatory approach. RBMPs set out environmental objectives (under Water Framework Directive (WFD) and Habitats Regulations). We use this as the baseline to estimate environmental water requirements in today's climate. In subsequent section we will refer to this scenario as current regulatory requirements.

Current 2050/2080 – current regulatory requirements under a changing climate

Under this scenario our regulatory approach remains the same, but we also take account of predicted climate change impacts. This means that we continue to protect the same percentage of natural flow for the environment. Flow and groundwater balance tests

evolve as a proportion of natural flows as these are altered by the impacts of climate change.

Intermediate 2050/2080 – current regulatory requirements with additional protections under a changing climate

This scenario sees greater environmental protection for Sites of Special Scientific Interest (SSSIs) rivers and wetlands, principal salmon and chalk rivers. Flow and groundwater balance tests evolve as a proportion of natural flows as climate change alters those flows.

Full 2050/2080 – full environmental requirements under a changing climate

This scenario builds on the intermediate 2050/2080 scenario but provides further protection for headwaters in chalk rivers and SSSIs. It assumes we will achieve good status for all WFD waterbodies (including those currently exempt) in line with government policy and supported commitments. This is assessed taking account of predicted climate change impacts. Flow and groundwater balance tests evolve as a proportion of natural flows as climate change alters those flows. We will refer to this scenario as Full 2050 in this document.

4.2 Using the scenarios

The Current and Full 2050 scenarios provide a modelled range of potential future water needs to be used when planning for environmental water requirements from now, through 2050, and onto 2080. The modelled range is informed by two projections of climate change impacts on natural flows.

When planning for 2050 and 2080 it is sensible to understand how climate change and future legislative changes may affect planning for water. We have used the Full 2050 scenario described above to model additional environmental protection in line with government policy and supported commitments (see section 3.5 in our Environmental Destination Technical Report). The Full 2050 scenario therefore reflects a higher potential need for water than the Current 2050 scenario, which projects the current legal requirements into a climate-changed future.

Neither 2050 nor 2080 is a deadline for meeting scenarios but instead represents a projection of climate change impacts to natural flows and environmental water requirements at a point in time. We have used two climate change projections to represent a range of equally likely possible futures. We refer to these as the wetter (low end) and drier (high end) of the range. More detail on these scenarios can be found in the Environmental Destination Technical Report.

We take a risk-based approach to recovering unsustainable abstraction. Our priority is to ensure there is enough water in rivers at times of naturally occurring low flows, when the impacts on ecology are usually most acute. We therefore use scenarios that assess abstraction impacts on the water environment during times of lows flow.

5 Legislative requirements and government commitments

Environment scenarios are used to understand where and by how much abstraction might need to change to meet the full range of government commitments for protecting the environment from over abstraction.

In managing abstraction, we determine how much water can be abstracted whilst protecting the environment and meeting environmental legislation. The government has also published other commitments for the water environment. These published commitments should be included in planning for the long term so that plans can take account of the full requirements for the environment when deciding what action is required. Taking account of the full range of government commitments on the environment means that the ambition for the environment is not restricted at the start of the planning process. It will enable informed choices to be made on the delivery of these government commitments and other regional priorities. Whilst planning for this ambition and the long term, the focus will be on meeting current regulatory requirements in the shorter term. Current unsustainable abstraction represents the biggest challenge in managing water resources for the environment in the long term: approximately 60% of the total challenge. Climate change pressures represent approximately 30% and meeting the full range of government commitments to the environment represent up to 10%.

The environmental destination integrates existing legislation and relevant policy requirements with other strategic government action plans (such as Chalk Stream Restoration and Salmon Five Point Action Plans) to identify the full range of government commitments on the environment relating to sustainable water abstraction. Legislative drivers often specify dates for delivery and how the legislation is written might affect how action is prioritised. More detail on this can be found Principles for protecting the water environment in water resources planning and are summarised in the sections below.

5.1 Legislative drivers

- Water Environment (Water Framework Directive) (England and Wales) Regulations 2017
- Conservation of Habitats and Species Regulations 2017
- The Environment Act 2021
- The Water industry strategic environmental requirements (WISER): technical document provides the full detail of the legal obligations for water companies to take account of in developing their plans including the Wildlife and Countryside Act 1981 (as amended). This includes ‘statutory plus’ obligations which are categorised as legal requirements where economic evidence forms part of the decision-making process, that is the balance of costs and benefits, and affordability considerations including:

- action that contributes to achieving or maintaining favourable condition targets for Sites of Special Scientific Interest
- action that contributes to the restoration and recovery of habitats and species under the NERC Act including supporting delivery of the Nature Recovery Network
- action that contributes to the achievement of conservation objectives of Marine Conservation Zones and (when designated) the desired state of the environment within Highly Protected Marine Areas
- actions for biodiversity should deliver the outcomes of the relevant Local Nature Recovery Strategy, Protected Site Strategies, and Species Conservation Strategies introduced by the Environment Act
- action that delivers inclusive public access to water company land and water of natural beauty, amenity or recreational value and allow public access for the widest possible range of activities

Please refer to the WISER and WISER Technical report to understand expected approaches water companies should follow during PR24 and beyond.

5.2 Policy drivers

- 25 Year Environment Plan (25YEP)
- Environmental Improvement Plan (EIP)

5.3 Government supported commitments

- Chalk Stream Restoration Strategy
- Salmon Five Point Approach

5.4 Environmental Flow Indicator (EFI)

Environmental Improvement Plan (EIP) The Environmental Flow Indicator (EFI) approach plays a crucial role in management of water resources in England. We use EFIs to identify where abstraction (and flow regulation) may be causing damage to river habitats and species. This helps us to understand where flow may not support environmental requirements.

The EFI enables us to take a risk-based approach by assessing unsustainable abstraction at times of naturally occurring low flows (Q95) as this is when the environment is under greatest pressure. We aim to recover water so that, under normal conditions, there is a minimum amount of water covering the riverbed at times of low flows. There are three EFIs which are set based on river ecological sensitivity – which allow more abstraction in less

sensitive rivers and less abstraction in rivers with higher sensitivity (for example chalk and other headwater streams).

Non-compliance with the EFI indicates where flow may not support Good Ecological Status (GES) under the WFD Regulations. Whilst the EFI approach can be used to represent the flow needs for riverine European sites and SSSI rivers, the flow targets for these designated sites are defined separately – see here for more information.

We test EFIs against modelled flows representing future climates to assess how environmental risks may change under a future climate, potentially causing deterioration. For more detail on how the EFI approach has been used in environmental destination scenarios see Environmental Destination Technical Report.

The UK Technical Advisory Group (UKTAG) is responsible for developing environmental standards and conditions for achieving WFD Regulations requirements for rivers and lakes. We translate the UKTAG river flow standards into the EFI for use in England (and Wales). UKTAG standards are formally signed off by ministers through River Basin Management Plans for their use in regulatory decisions. We expect the EFI approach to be used as the principal planning assumption for identifying long-term environmental needs in regional plans.

However, good quality local data, detailed modelling and evidence may provide a more accurate picture of how much water needs to be recovered to meet environmental requirements. Regional water resources groups can use locally available improved evidence such as catchment specific groundwater modelling to understand likely long-term environmental requirements. The UKWIR Environmental Destination Framework has useful information about appropriate methodologies to assess environmental flow requirements. Any proposed local flow requirements, that will be used for regulatory decisions, are not considered final until they have been approved by the Environment Agency through a formal process, including meeting required levels of evidence to support any flow requirement different from the EFI.

During the period where a local flow requirement is being developed or considered, the EFI remains the default planning target, and any proposed local flow requirement remains part of uncertainty planning. Adaptive planning can be used to plan for solutions that would be required to achieve either the EFI or a local flow requirement. For more information on adaptive planning please refer to Water Resources Planning Guideline (WRPG) subsection 10.8 and the WRPG supplementary guidance note on Adaptive Planning

6 Overview: how to develop your environmental destination in Regional Plans and WRMPs

6.1 Aims

The overall aims of environmental destination for water resources planning are to:

- Enable future water resources environmental resilience and protection to at least 2050.
- maximise the environmental benefits that can be achieved with the investment that can be secured.
- To achieve these aims, regional groups will:
- Develop a planning pathway to address the full range of environmental requirements as quickly as possible,
- Explore alternative pathways to meet both current and future environmental requirements in the context of the whole bundle of future water needs, informed by stakeholder priorities. This will enable you to compare planning pathways and identify how to maximise the benefits and cost effectiveness of investment.
- Identify the overall best solutions to close the gap to achieve environmentally sustainable abstraction and inform choices

The environmental destination can be adapted with better evidence and stakeholder input and refined in future rounds of regional planning. Figure 1 shows the approach to how developing your regional environmental destination fits within an adaptive planning framework approach for water resources planning.

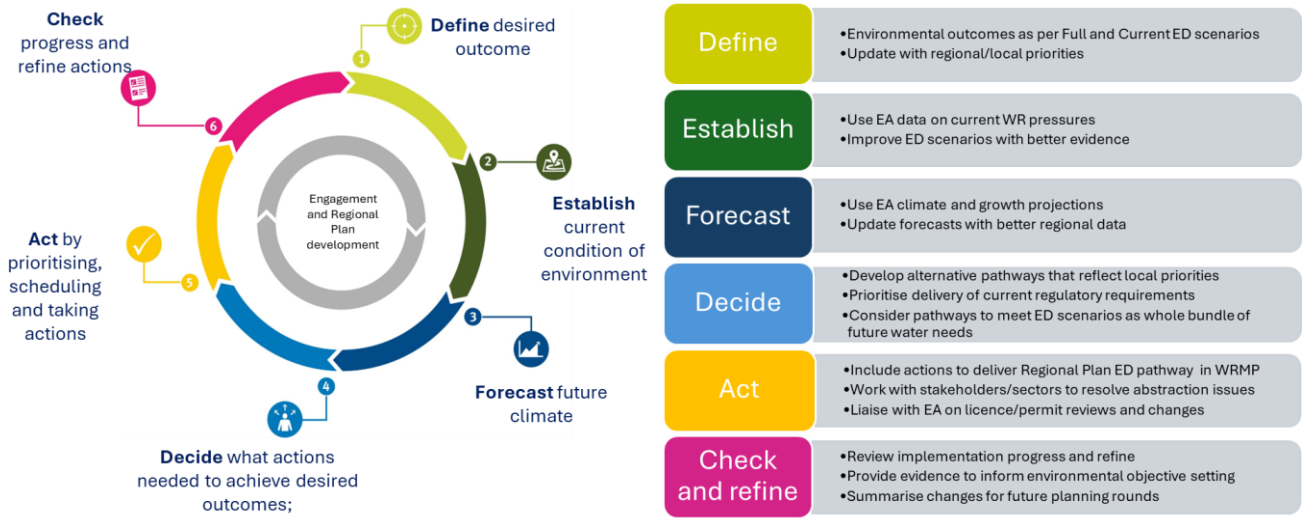

Figure 1 Overview of environmental destination actions with an adaptive planning approach for water planning

There are 9 key steps to develop your regional environment destination that, when undertaken within an adaptive planning framework, will help optimise the options considered and inform future planning rounds.

6.2 Summary of the 9 key steps

Key steps to develop an environmental destination plan as part of regional planning form three main stages; improving information ahead of planning, developing your environmental destination plan and incorporating this into decision making for WRMPs and Regional Plans. How the steps relate to these stages is shown in Figure 2.

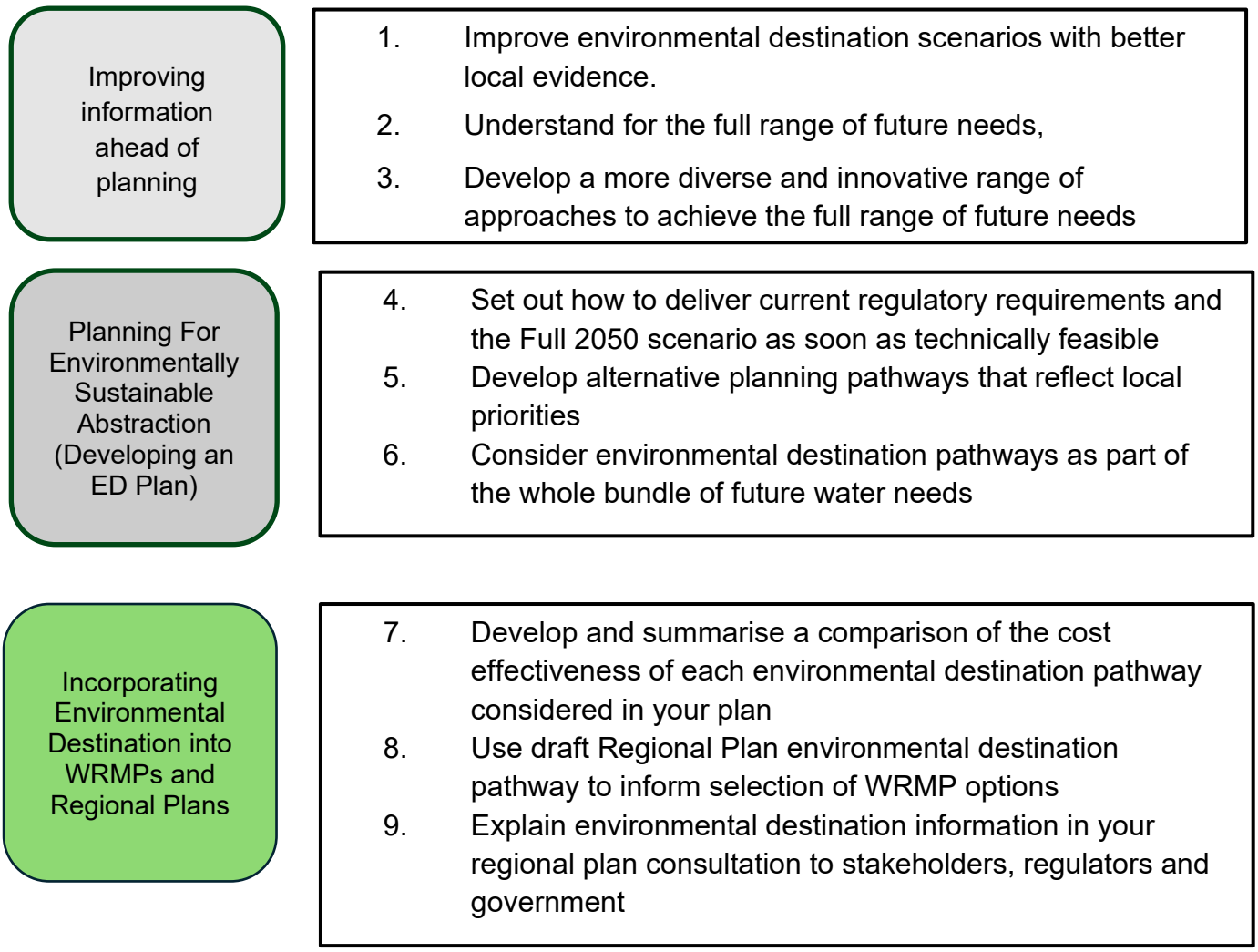

Figure 2 The 9 key steps in environmental destination planning

The list closely reflects the list of Key Steps presented in section 5.4.2 of the Water Resources Planning Guidelines but with the key difference that these steps also relate to Regional Water Resources Planning (rather than only Water Company Water Resources Management Plans).

Whilst these steps are presented in a chronological order that reflect the overall order they are undertaken; in practice there may be iteration and feedback loops between them.

A summary outline for each of these key steps is shown below:

Step 1 Improve environmental destination scenarios with better local evidence.

Improve national estimates with better evidence and local information. Use this to inform your understanding of the scale of required changes and which abstractors/abstractor groups you will need to engage with. Agree evidence changes with the Environment Agency so that national scenario datasets can be updated.

Step 2 Understand the full range of future needs,

Environmental destination planning requires consideration of the current regulatory requirements and the Full 2050 scenario which includes additional government commitments for the water environment. This provides a range within which regional groups can consider environmental requirements, including regional priorities and a range of climate impacts.

We expect planning to start with meeting the Full 2050 scenario. Considering the full range of government commitments on the environment from the outset ensures that the ambition for the environment is not restricted at the start of the planning process. Understanding the requirements to meet the Full 2050 scenario will enable informed choices to be made on the delivery of these government commitments and other regional and stakeholder priorities.

Step 3 Develop a more diverse and innovative range of approaches to achieve the range of future needs

Environmental destination planning involves testing different pathways and approaches to achieving environmental objectives. This includes planning for when environmental objectives can be achieved.

The primary measure to address ecological impacts of water abstraction is to change existing abstractions to increase the amount of water in rivers and groundwater, especially during low flow periods.

Develop a more diverse and innovative range of options which meet (or contribute to meeting) environmental objectives.

Step 4 Set out how to deliver current regulatory requirements and the Full 2050 scenario as soon as technically feasible

Identify pathways which deliver the current regulatory requirements and the Full 2050 scenario as soon as technically feasible (Fastest Technically Feasible pathways).

Step 5 Develop alternative planning pathways that reflect local priorities

Develop alternative planning pathways which explore different combinations of actions and innovative solutions, whilst considering regional priorities and different timescales to

achieve environment requirements. Prioritise actions to inform development of alternative pathways and support decision making in subsequent steps.

Step 6 Consider pathways to meet the environmental destination scenarios as part of the whole bundle of future water needs.

Consider pathways to deliver current requirements and Full 2050 scenarios as part of the whole bundle of future water needs that determine the affordability of a plan (WRMP or Regional Plan). This enables environmental requirements to be considered alongside other requirements including climate change impacts, drought resilience (1:500 requirements) and population growth in determining the best value options to deliver all future water needs. For regional planning purposes this bundle of future water resource needs should also consider multi-sector needs where this could inform option development. This approach will drive the development of a truly integrated set of options to meet future planning needs and should deliver more for the environment compared to considering options to meet future water needs separately. It will help to reduce the risk of future growth being restricted by limited environmental capacity. Please note that the bundle of future water resource needs is separate to catchment bundles developed as part of river basin planning which considers all pressures operating on the water environment.

Step 7 Develop and summarise a comparison of the cost effectiveness of each environmental destination Pathway considered in your plan

Develop a comparison of cost effectiveness between the different pathways to explain your choice of preferred pathway (i.e. your preferred environmental destination pathway, the Fastest Technically Feasible pathways plus any other pathway that helps to explain your choices). Provide a summary of this for step 9.

Step 8 Use Regional Plan environmental destination pathway to inform development of WRMP options.

Environmental destination planning should put forward technically deliverable pathways for Regional Plans (RP) and Water Resources Management Plans (WRMP) to consider. RP and WRMP should consider this information alongside other planning requirements to develop a draft plan that includes a preferred environmental destination pathway. We expect engagement between regional groups and water companies to inform options development as these plans evolve.

Step 9 Explaining environmental destination information in your regional plan consultation to stakeholders, regulators and government.

Provide government and regulators with a summary of the cost-effectiveness for each of your pathways and how this has informed your draft plan. Present expected outcomes for each planning pathway considered in your plan and describe the water bodies that are expected to benefit. Plans must clearly set out the preferred environmental destination pathway delivers with sufficient information for stakeholders and regulators to understand why this has been selected.

Important concepts for the environmental destination

In these steps we refer to a number of terms that are important to understand:

1. Pathway: shows how unsustainable abstraction could be reduced over time and represents a possible path for consideration through water resources planning.
2. Fastest Technically Feasible (FTF) pathway sets out how the current regulatory requirements and the Full 2050 Scenario can be delivered as soon as technically feasible by reducing current abstraction to be hydrologically compliant
3. Alternative planning pathways explore different combinations of actions or innovative solutions or timescales to achieve the current regulatory requirements and Full 2050 Scenario. These should be compared to the FTF in developing a preferred environmental destination plan.

Technically deliverable: A solution is considered technically deliverable if it is both technically feasible (can be constructed or implemented) and affordable (does not impose disproportionate burdens on sectors or society).

7 Detail of 9 steps to develop a regional environmental destination plan

This section provides more details on the steps outlined in section **Error! Reference source not found.**6.

7.1 Step 1: Improve environmental destination scenarios with better local evidence

7.1.1 Initial review of evidence

Scenarios should be developed and improved where better local evidence will result in an improved environmental destination plan. You should focus on places where further information and refinement will have the most benefit i.e. if improving the scenarios will make a material difference to the options being considered in this round of planning. The modelling from the first round of environmental destination planning may help to inform this.

You should undertake an initial prioritisation using readily available catchment data to identify the places where evidence improvements are likely to make the biggest difference to planning. You should design this in a way that enables information to be fed into the prioritisation you will need to undertake in step 5. Please refer to step 5 and Appendix 1 for more information on the prioritisation approach.

7.1.2 Improved scenarios for planning

We want to work with abstractors to improve the environmental destination planning scenarios (current regulatory requirements and the Full 2050 scenario). Regional Groups and water companies are well placed to lead on this work because they have funding allocated for environmental destination planning. Improving confidence can primarily be done by refining and improving the environmental destination current regulatory requirements and Full 2050 scenarios, where improved local data and information is available. This should be carried out in collaboration with our local technical teams so that improved information can be approved to update the scenarios and national datasets. Examples of improving scenarios include:

- Improved information about how abstraction impacts the water environment e.g.:
    - Local groundwater modelling outcomes
    - Updated hydrology data to inform naturalised flow estimates
    - Regional climate change models
- Improved data on expected water demands
    - Improved understanding of growth forecasts
    - Water companies must assess where future regulatory action to reduce abstraction licences held by other sectors may result in increased demand on public water supply. This assessment is part of the WRMP forecasts of future water demand.
- Agreed local flow constraints.

7.1.3 Consider all abstractors for multi-sector planning

You can use national estimates together with local evidence and information to inform your understanding of the scale of required changes and identify which abstractors/ abstractor groups you may need to engage with.

Where possible, we expect water companies and regional groups to work with other sectors and regulators to understand where other abstractors may have new water needs due to likely abstraction reduction. This will help understand where multi sector solutions may need to be developed in Step 3. We acknowledge that this is a significant task, and the work may need to be prioritised to where the potential benefits of joint working are greatest for both abstractors and the environment.

The local evidence you gather can be used to refine the environmental scenarios (step 1), inform development of solutions and alternative pathways to environmentally sustainable abstraction (steps 3 and 5) and prioritise action in your overall plan.

7.2 Step 2: Understand the full range of future needs

7.2.1 The environmental destination scenarios

We expect abstractors to keep their abstractions within environmentally sustainable limits as the climate changes. For an abstraction that is in a waterbody where abstraction is currently considered to be environmentally sustainable, this means reviewing when the impacted waterbody may reach sustainable limits and then planning to adjust abstraction to ensure the environment remains protected as the climate changes.

For an abstraction in a waterbody that is currently unsustainably abstracted, this means first adjusting abstraction to meet current requirements, and after that planning to remain within environmentally sustainable limits as the climate changes.

The Current 2050 scenario represents potential changes if current legislation remains unchanged to 2050 but the climate changes. The Full 2050 scenario represents potential changes where the climate changes plus current government commitments and priorities are incorporated into regulatory requirements. The Current 2050 and Full 2050 scenarios therefore provide a predicted range of regulatory environmental water requirements for 2050. The 2080 scenarios make the same projections, but for a 2080 climate.

Neither 2050 nor 2080 is a deadline for either scenario but instead represents a modelled projection of the likely environmental water needs at a point in the future.

7.2.2 How the environmental destination scenarios are used in planning

The aim of environmental destination planning is to maximise the environmental benefits that can be achieved with the investment that can be secured. Understanding the consequences of delivering across the range of environmental requirements, from the Full 2050 scenario to current regulatory requirements, will help support stakeholder discussions on the choices and prioritisation of regional priorities and inform development of a preferred environmental destination pathway. Figure 3 illustrates how the different scenarios fit together on a timeline to provide today's regulatory requirements and a range of future regulatory requirements up to 2050 and 2080.

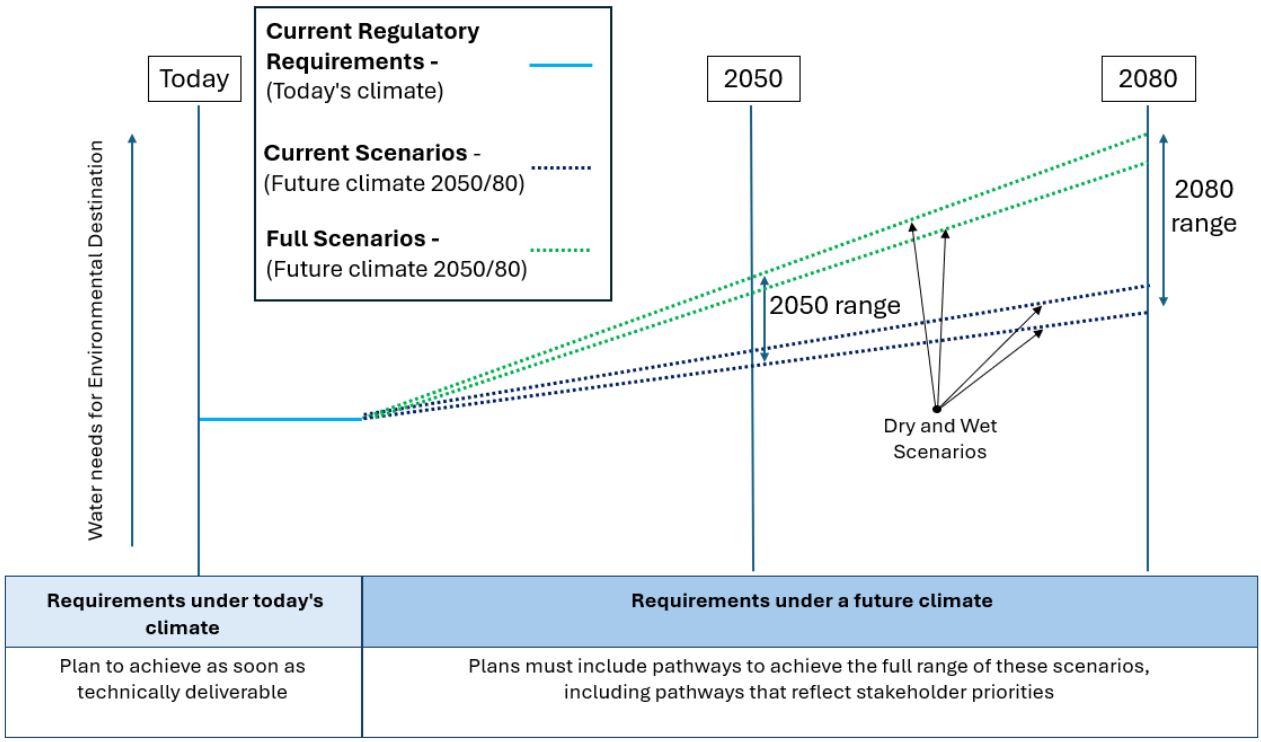

Figure 3 Diagram summarising how regulatory requirements for environmental destination evolve over time as the climate and requirements change

Planning should start with the aim of meeting the Full 2050 scenario. We expect you to plan to full because this ensures that the ambition for the environment is not restricted at the start of the planning process. A summary of the planning expectations when using the scenarios are described in Table 1.

Table 1 Summary of scenarios and how they are used

Regulatory Requirements for planning	Description	Expectation
Full Scenario 2050 (2080) Future Regulations Future Climate	Current regulatory approach taking account of predicted climate change impacts, plus additional environmental protection in line with government policy and supported commitments.	Plans set out what is required to meet Full 2050/2080 scenarios. The Full 2050 scenario is the default aim. Alternative pathways can be considered on the way to achieving Full 2050 scenario. Plans should develop a technically feasible preferred pathway, informed by stakeholder priorities, to meet regional water needs as quickly as possible
Current Scenario 2050 (2080) Current Regulations Future Climate	Prediction of how the current regulatory requirement will evolve as the climate changes	As above - plans set out what is required to meet Full 2050/2080 scenarios. Current 2050 scenario should be considered as a milestone on the pathway to Full 2050.
Current Regulatory Requirements (baseline)	Changes to water abstraction to meet environmental water requirements under current legislation in today's climate	Start by developing a plan to achieve CRR as soon as technically deliverable (in line with relevant statutory targets)

7.2.3 Building in climate and regulatory changes into the scenarios

We have adjusted our assessment of natural flows under different future climate change modelled predictions to understand where abstraction may be environmentally unsustainable in the future. Our climate adjusted environmental destination scenarios should therefore be considered a prediction of what the regulatory requirement (legal minimum) will be in 2050 and 2080.

You should select a future climate scenario which has the most impact on water planning in the region (either the dry or the wet scenario). Alternatively, both scenarios can be considered where this improves robustness of planning.

We also know that legal requirements change over time through a variety of mechanisms:

- The Government implements changes to legislation
- Regulatory requirements change in plans (e.g. when Environmental Objectives in a River Basin Management plan are updated)
- Improved evidence changes the regulatory requirement (e.g. when improved information confirms a Reason for Not Achieving Good ecological status (RNAG))

Abstractors should plan to meet their future legal requirements by using the range of future scenarios to plan for where the current regulatory requirement is projected to be in 2050 and 2080.

Planning for both current and future flow requirements alongside each other will require abstractors to assess whether projected future needs require different investment choices (e.g. larger reservoir capacity).

7.3 Step 3: Develop a more diverse and innovative range of approaches to achieve the range of future needs

The primary measure to address ecological impacts of water abstraction is to reduce or change existing abstractions to increase the amount of water in rivers and groundwater bodies. We take a risk-based approach and prioritise recovering unsustainable abstraction at times of naturally occurring low flows as this is when the environment is under greatest pressure. We aim to recover water so that, under normal conditions, there is a minimum amount of water covering the riverbed at times of low flows (Qn95). This is an absolute essential building block for a healthy resilient riverine ecology.

To meet environmental requirements there may be choices in which abstractions are reduced, how required reductions are implemented and consideration of the mix of abstraction reductions in a catchment. For example, abstraction reductions which most effectively tackle the ecological impacts of abstraction or an approach which limits the overall impact on abstractors whilst achieving regulatory targets. The geographical spread of the mix should also be considered as abstractions in different locations often have different impacts on the water environment.

You can develop a more diverse range of new and innovative solutions to improve environmental destination planning by:

1. Improving the choice of solutions available when planning, and
2. Seeking the most effective combination of solutions

You should consider innovative solutions and combination of measures which can deliver more for the environment, enable growth and support sustainable water supplies. This includes optimising infrastructure operations, nature-based solutions (NbS), habitat and other hydro-morphological improvements and wider catchment solutions should be considered to meet environmental objectives. These other options are complimentary to the abstraction reductions that can be achieved and need to have a realistic chance of success to be considered.

As part of identifying innovative solutions/options you should consider more flexible use of water supply infrastructure to reduce abstraction pressure across the network. Optimising infrastructure solutions will need to operate within the current licensed conditions and meet

environmental objectives. They need to be enforceable from a regulatory perspective to secure the measures to meet environmental objectives.

Where abstraction reductions are not technically deliverable in the short-term but the ecological impacts of abstraction are proven, we expect any required 'no regret' measures that will improve hydro-morphological conditions to be implemented in the short-term. This may include habitat or catchment resilience measures or demand management actions. This was a key principle of the recent 'National Framework for water resources: Environmental Destination investigation framework' UKWIR project.

We have recently published a NbS position statement that that describes our approach to NbS. We have also developed guiding principles on using NbS to support sustainable water resources. This includes:

- The primary measure to address ecological impacts of water abstraction is to reduce or change existing abstractions to increase the amount of water in rivers and groundwater bodies. Appropriately designed NbS can enhance the ecological benefits of constraining abstraction and should be considered alongside, and in addition, to flow recovery measures based on abstraction reduction.
- NbS should not be relied on to recover the large resource deficits seen in some catchments but may be beneficial in reducing the quantity of some future sustainability reductions for licences.

As such, NbS should be viewed as complementary rather than an alternative to license changes that can be achieved.

Where the water deficits are large, catchment solutions are unlikely to solve the problem in isolation but may help manage the risk of deterioration in the interim and build resilience to even larger changes in the future.

7.4 Step 4: Set out how to deliver current regulatory requirements and the Full 2050 scenario as soon as technically feasible

7.4.1 Planning for current regulatory requirements

The two key drivers of current regulatory requirements require action to be progressed without delay and as such plans must demonstrate how they will deliver these as soon as technically deliverable:

- WFD Regulations aim to achieve Good Ecological Status (GES) by 2027. We expect actions required to meet GES to be implemented by 2027 or as soon as technically deliverable afterwards (where a Reason for Not Achieving Good (RNAG) is confirmed).

- Habitats Regulations require solutions to be delivered to meet protected area objectives. We are required to make required changes to licences as soon as reasonably practicable.

All reasonable steps to achieve current regulatory requirements at the earliest technical possible time must be taken. The approach to environmental destination planning for the Current 2050 scenario is to develop the fastest technical feasible and cost-effective pathway to deliver the requirements. When planning, technical feasibility and cost-effectiveness of solutions must be considered over multiple planning cycles to demonstrate how regulatory requirements are planned to be met as soon as technically deliverable. This will include:

- Actions to prevent deterioration.
- Improvement actions to meet river basin plan objectives that are technically deliverable in the next price review period (including actions to meet Habitats Regulations requirements)
- Actions that need to be implemented across multiple AMP rounds to deliver future sustainability reductions because the scale of environmentally unsustainable abstraction is too large to be resolved by short-term planning/single AMP round planning.

In managing abstraction licences we consider the same legislative requirements across all sectors. We cannot allow deterioration of the water environment, so we change licences at the first opportunity where a risk of deterioration is likely. Where it relates to a required improvement measure we use the planning process for that sector. For the water industry this is done via WINEP, WRMP & Regional Planning and for other sectors this is achieved through permit reviews (which multi sector planning can feed into).

7.4.2 Pathways

A pathway shows how unsustainable abstraction could be reduced over time. It represents a possible path for consideration through water resources planning. Planning pathways explore different combinations of actions or innovative solutions or timescales to achieve desired outcomes. Milestones for when different environmental destination scenarios can be achieved should be marked on each pathway.

To improve transparency of delivery timescales for regulators and stakeholders, Regional Plans and WRMPs are required to present a Fastest Technically Feasible (FTF) pathway. This provides a starting pathway from which to plan from.

The Fastest Technically Feasible pathway is the pathway that delivers the current regulatory requirements and the Full 2050 Scenario as soon as technically feasible by reducing current abstraction to be hydrologically compliant (i.e. by considering unconstrained and feasible WRMP list of options).

To do this you need to produce two FTF pathways as per table 2.

Table 2 Description of pathways

FTF Pathway	Current regulatory requirements	Future Regulatory Requirements
Current 2050	As quickly as possible	Meet the Current 2050 and 2080 scenarios under the less impactful climate projection for your planning area
Full 2050	As quickly as possible	Meet the Full 2050 and 2080 scenarios under the more impactful climate projection for your planning area

The FTF pathways enable government, regulators and stakeholders to understand what factors are driving deliverability of environmental improvements. It also provides a starting baseline from which other pathways can be assessed and a point from which prioritisation of action can be considered. For example, it could help to identify:

- Which solutions must be delivered on a particular timeline to meet environmental needs?
- Where are the choices in which solution to deliver first?

It may help for plans to present the pathways used in PR24 to demonstrate changes made between plans and to explain the reasons for those differences.

Figure 4 gives an example of how pathways can be displayed and compared.

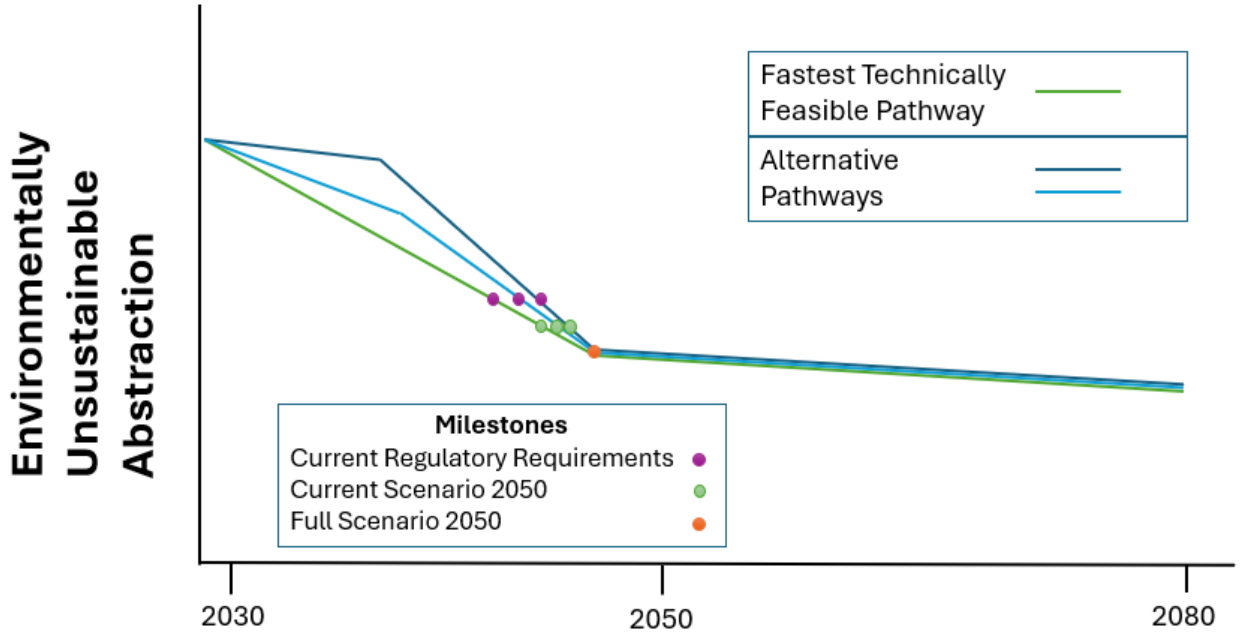

Figure 4 Diagram illustrating alternative pathways to deliver environmental destination

7.5 Step 5: Develop alternative environmental destination pathways

The Fastest Technically Feasible pathways should be used to develop and compare alternatives against. The next step is to try to improve on the FTF pathways by creating alternative environmental destination pathways that aim to:

- Deliver more environmental or societal benefits than the FTF pathway
- Deliver regulatory requirements in a more cost-effective way

7.5.1 Prioritisation

Before you develop alternative pathways you should prioritise the locations where you would like to take action first.

You should use the prioritisation approach outlined in the Appendix to inform how prioritisation and/or sequencing of actions could inform development of alternative pathways and support decision making in subsequent steps.

You can update and improve your prioritisation through your planning period as more information becomes available through WINEP Investigation results, scenario refinement and stakeholder engagement.

At the end of the prioritisation process you should have an ordered list of locations, which can be catchments, waterbodies or site specific. Those at the top of the list are where ideally you would like to take action first. Environmental destination prioritisation can support improved planning wherever you have choices that affect where and when you can take action to improve flows. Prioritisation is also an opportunity to engage stakeholders and help to bring stakeholder views into plan decision making. We have provided detailed guidance to support prioritisation in Appendix

7.5.2 Alternative environmental destination pathways

The list below gives examples of how alternative environmental destination pathways could be developed:

- Incorporate additional solutions and approaches that were identified in Step 3 where these could deliver the current regulatory requirements plus the range of 2050 current and full regulatory requirements in a more cost-effective way and/or increase the benefits to the environment and society.
- Select approaches that reflect regional priorities when planning to meet the additional requirements of the Full 2050 Future scenario. Identifying regional priorities should be carried out in collaboration with stakeholders.
- Test different combinations or types of abstraction reductions to find a more efficient/cost effective combination of abstraction reductions that has less impact

on abstractors when meeting regulatory requirements (e.g. developing winter storage for surface water abstractors, thereby reducing the need for groundwater abstraction reductions).
- Assess benefits and dis-benefits of spreading option delivery over a longer period e.g. allowing affected parties more time to adapt.

If you have identified uncertainties in step 1 that will affect your planning choices you should address them through adaptive planning pathways.

Creating alternative pathways enables choices to be made about which set of solutions can deliver the current regulatory requirements and/or the range of 2050 current and full regulatory requirements in a more cost-effective way and/or increase the benefits to the environment and society. Comparison of different pathways aims to support transparent decision making on the choices in each planning period on the way to achieving regulatory objectives (as shown in figure 2).

Pathways can be created for different geographical scales (e.g. water company level, or catchment level). The chosen scale should be defined by the scale at which solutions are being considered, or a scale that is best for communicating with stakeholders.

Pathways should be set out for consideration in the current plan, but some decision points can be delayed until a more appropriate time through an adaptive planning approach.

7.5.3 What should alternative planning pathway include?

All alternative pathways presented in a plan must be compared to the FTF pathways. Each alternative pathway must have a rationale to explain how it adds value for consideration in plans. The rationale must include the information listed in table 3.

The choices made in this step and how the rationale is explained will be important for supporting consultation with stakeholders on the preferred pathway to be included in the draft Regional Plan for consultation.

Adaptive planning provides the opportunity to review options to meet the Full 2050 scenario in future rounds of regional planning. Plans should seek to use adaptive planning to retain flexibility in achieving more ambitious environmental outcomes in future.

If an alternative pathway seeks to extend milestones beyond technically feasible delivery dates, then a case must be put forward to justify the reasons for this. Such a case can be put forward based on:

- Where alternative pathways provide significantly increased environmental and societal benefits compared to the Fastest Technically Feasible pathway, but may take slightly longer to achieve
- Where it can be shown that only an alternative pathway would avoid a disproportionate burden on particular sectors or parts of society.

Table 3 Information to include in the rationale that accompanies an alternative environmental destination pathway

Alternative Pathway Rationale must explain	Example
1. How it differs from the FTF pathway	e.g. Achieves the same outcome, but five years slower with increased benefits through additional investment in nature-based solutions and more cost-effective investment in replacement water supply infrastructure
2. How it complies with current regulatory requirements	e.g. Same flow recovery as FTF Pathway
3. To what extent it achieves Full 2050 requirements	e.g. Same flow recovery as FTF Pathway
4. How it reflects regional priorities (how and what)	e.g. Stakeholder preference for nature-based solutions and prioritise recovery of Salmon Action Plan Rivers earlier
5. The purpose of the pathway (How this alternative pathway adds value to the planning process)	e.g. Provides an alternative for plan decision making: Achieving same benefits at lower cost, but outcome delivered later.
6. The key milestones when current regulatory requirements and full requirements could be achieved (as shown in the example pathways in figure 2).	e.g. Current by 2040 (FTF 2035) Full by 2055 (FTF 2045)

All alternative pathways included in your plan need to be supported with a plausible technical case showing that the pathway can meet current regulatory requirements and progress towards meeting the range of future requirements. We therefore advise regional groups to seek an early regulatory review of pathways.

7.5.4 Economic factors to consider in developing pathways

Different aspects of economic analysis inform the development of pathways to deliver the scenarios. These are outlined in Table 4.

Table 4 Summary of how economic analysis informs development of environmental destination

Scenario	Analysis	Notes
Current Regulatory Requirements	Cost-effectiveness	Current environmental objectives need to be met as soon as technical feasible in the most cost-effective way
Current Regulatory Requirements 2050	Cost-effectiveness	Current environmental objectives need to be maintained in the future considering the implications of climate change in the most cost-effective way.
Full scenario 2050	Cost-benefit	Closing the gap between 2050 current regulatory requirements and 2050 Full Scenario is subject to Cost:Benefit analysis. Costs are considered as part of the assessment of options to deliver the whole bundle of future water needs (step 6)
Alternative pathways	Cost-effectiveness and Cost-Benefit	Cost effectiveness to deliver current regulatory requirements as soon as technically feasible. Cost-benefit to close the gap to the Full Scenario. Costs are considered as part of the assessment of options to deliver the whole bundle of future water needs (step 6)

Additional notes to Table 4: Preventing deterioration and meeting the requirements of the Habitats Regulations as protected area objectives are considered 'must dos' under WFD and hence not subject to cost benefit assessment but can be achieved through selection of most cost-effective measures

Alternative pathways can also be influenced by the distributional nature of the costs. For example, spreading the option over a longer period of time might make it easier to achieve by allowing time for affected parties to adapt. This can include analysis of the impact on customer water bills. However, consideration of distributional impacts is not intended to protect water companies that are performing poorly against the industry standard. This is in line with the principles outlined in the RBMP 2022 Ministerial Guidance.

This is important information to help stakeholders understand the differences and choices between different pathways. It will also provide the basis for the summary of 'economic' information to be provided in Step 7.

7.5.5 Levels of Evidence for Planning vs Implementation

The level of evidence required to plan for environmental destination is different from the level of evidence required when implementing an environmental solution on the ground.

Table 5 Examples of the different levels of evidence required for planning vs implementation of environmental improvement schemes

Level of evidence for implementation (i.e. the final decision on implementation)	Level of evidence for planning (i.e. a planning decision that could be reviewed in future)
• **Higher level of certainty on ecological impacts to be resolved** • **Balance of evidence should be strong enough to give confidence that implementation will achieve required outcomes** • **Where appropriate, EFI (or similar) ecological flow requirements can be supplemented by more detailed investigation** • **Seek sufficient certainty to inform implementation** • **Evidence more reliant on hydro-ecological data**	• Some uncertainty around ecological requirements can remain (can be dealt with through adaptive planning and future investigation) • Where balance of evidence indicates that action is likely to be required, the action should be included in plans • Planning based on modelling of environmental flow requirements (e.g. EFI) is sufficient to inform balance of evidence for decision making • Uncertainty in ecological flow requirements can be accounted for in planning by assessing a range of plausible futures • Evidence requirements significantly linked to economics (pace of action defined by technical feasibility and affordability)

7.6 Step 6: Consider environmental destination pathways as part of the whole bundle of future water needs

7.6.1 Considering all future water needs together

Environmental requirements should be considered as part of the supply forecast when determining future water needs in WRMPs (WRPG section 5.4). This means that environmental requirements are included alongside other pressures operating on the supply demand balance when identifying options that efficiently meet all future water needs. These pressures include climate change impacts on supplies, the supply impact of improving supply resilience to a 0.2% annual chance (1:500) of failure caused by drought, and the impacts of growing demand. Here, we refer to the future water needs considering all these different supply demand pressures as ‘the whole bundle of future water needs.’

You should use the outcomes from steps 1 – 5 to determine which pathways will be used to inform development of a ‘best-value’ set of options to deliver the whole bundle of future water needs. You should consider your environmental destination pathways as part of the whole bundle of future water needs to determine overall levels of affordability and finalise your proposed regional plan.

This is likely to be an iterative process between Steps 5 and 6, where different environmental destination pathways are considered within the whole bundle of future water needs. This iterative analysis will help you identify your preferred environmental destination pathway/s for inclusion in your regional plan.

7.6.2 Including environmental destination in Water Resources Management Planning

When environmental destination is considered as one component of a WRMP's supply-demand challenge, meeting current regulatory requirements should be considered as a 'must do'. This means it has equal weighting to the other components that make up any supply demand deficit and must form part of the bundle of water needs that WRMPs plan to resolve. As set out in Environmental Destination Technical Report: Understanding environmental water needs waterbodies that were assessed (at a river basin plan level) as not cost-beneficial to solve for water resources in the RBMP timescale have been excluded from our baseline assessment. This means all scenarios aiming to meet current regulatory requirements are not subject to further cost benefit analysis testing.

The outputs from Steps 1-5 should enable planners to understand the different investments (usually WRMP Options) that would be required to deliver pathways that can achieve the different environmental destination scenarios.

Plans should make best use of currently available evidence to identify 'no/low regret' actions and approaches that are required under all scenarios. Plans should include these actions/approaches in all pathways for implementation as soon as technically deliverable. The UKWIR Environmental Destination Framework includes useful resources for identifying and prioritising actions including no/low regret actions.

Where there are choices around which investments could be used to achieve the range of environmental destination scenarios, the planning and decision making should follow the approach set out in the WRPG.

Along with all sources of uncertainty (e.g. future water demand, growth in non-household water needs and success of demand management), uncertainty in environmental water needs should be considered in Regional Plans and WRMPs. Planning should aim to reduce the uncertainty over time and should identify which uncertainties are most important in influencing decisions and set out an approach to reducing these uncertainties going forward.

7.7 Step 7: Develop and summarise a comparison of the cost effectiveness and/or cost benefit of each environmental destination pathway considered in your plan

If your preferred environmental destination pathway is not the Fastest Technically Feasible pathway to meet current regulatory requirements and Full 2050 Scenario you need to provide information to support and justify this decision. This needs to be included in your regional plan and your technical justification provided to the Environment Agency for review as outlined in step 9 (section 7.9).

You should provide a summary of the cost:effectiveness and/or cost:benefit and any consideration of a distributional nature of the costs. This needs to be provided for:

- Your preferred environmental destination pathway
- Current 2050 and Full 2050 Fastest Technically Feasible pathway as defined in Table 2, Step 4.
- Any other pathway that helps to explain your choices.

The pathways presented should enable stakeholders to understand how decisions have been made. The information for each pathway should include:

- Timings and levels of investment
- When environmental destination milestones will be achieved.
- Differences in the benefits delivered
- The cost effectiveness of achieving regulatory requirements under each pathway
- The costs and benefits of the additional investment that delivers beyond the current regulatory requirements towards the Full 2050 Scenario

7.8 Step 8: Use draft Regional Plan environmental destination pathway to inform selection of WRMP options

As detailed in Section 2 of pathway the Water Resources planning guideline, a WRMP must reflect regional planning work unless there is clear justification for not doing so. WRMPs should explain how they have reflected regional planning outputs, including processes to identify, assess and select pan-company and pan-regional strategic supply options. We expect environmental destination elements of planning to follow this approach

7.9 Step 9: Explaining environmental destination information in your regional plan consultation to stakeholders, regulators and government

As you launch your consultation, you will need to provide to government and regulators a summary of the cost-effectiveness for each of your pathways and how this has informed your draft plan. For each planning pathway considered in your plan (see step 7 section 7.7), the expected outcomes for each pathway should be presented in a way that can easily be understood (for example by describing the water bodies that are expected to benefit). Meeting current regulatory requirements should be explained as:

- Something that is required to be delivered, but where there are choices around how best to deliver.
- A requirement without a set deadline for delivery, but where the pace is driven by the need to comply with regulatory requirements as quickly as technically deliverable (within limits of technical feasibility and affordability)
- Having some future uncertainties that must be factored in to planning, but which will need to be resolved at a later date.

Stakeholders and regulators will respond to the draft plans through the established WRMP and RP processes. Consultation on draft WRMPs is covered in Section 3 of the Water Resources Planning Guideline.

We will review this information and use it to advise government if they want to provide a steer to water companies in their development of WRMP2029

Subject to government reviews including into the Future Water Framework, we will also advise government on if, and how, this information could be used to inform future environmental objective setting.

Finalising Water Company Plans includes decisions made by government. The decisions have been made in the past through a variety of interactions with water planning, starting with Ministerial Guidance, followed by signoff through WRMPs and Water Company Price Review. In future these decisions are likely to continue to be made by government, either through the existing approach, or through new or changed approaches following ongoing government reviews related to the environment and water.

Following the process set out in the Water Resources planning guideline, final WRMPs, which include environmental destination pathways, will be approved for delivery. Once a government decision has been made to approve a WRMP that includes an environmental destination preferred pathway, the agreed pathway can be referred to as an **environmental destination delivery plan.**

8 Engaging stakeholders to inform priorities for action

Why Engage?

You should engage early with regulators and a broad range of stakeholders (such as other water companies, abstractors and abstractor groups, eNGOs, local environment groups and catchment partnerships) to ensure that you gather a wide range of views on what your environmental destination should look like. You should address the needs of the environment in a collaborative way to deliver the long-term improvements proposed.

Environmental destination is a significant driver of investment in most Regional Plans and WRMPs. A similar level of communications and engagement focus should be given to environmental destination as is given to other drivers of investment in a plan.

Communication and engagement are important for gathering information to:

- Understand regional priorities and inform prioritisation (see step 1 section 7.1 and step 5 section 7.5)
- Identify more diverse and innovation approaches (see step 3 section 7.3)
- Inform decision-making in your plan associated with the environment (see step 6 section 7.6).

What is required?

A draft plan should not be the first time that key stakeholders have visibility of the preferred environmental destination pathway – that would be a missed opportunity and wouldn't constitute genuine engagement on the plan.

You can use your engagement with stakeholders to:

- review the scenario data for your region and gather information to improve scenarios.
- understand potential issues, conflicting priorities and how you might resolve these.
- better your understanding of potential improvements that could protect and increase environmental resilience and how they might be delivered.
- identify solutions which deliver multiple benefits or where a revised timetable for implementation of solutions could result in an overall improved environmental outcome,
- Identify regional priorities e.g. those agreed in Local Nature Recovery Strategies.

Environmental destination engagement is likely to be most effective at a geographic scale appropriate to the issues that are being planned for. This will often be at river catchment scale. However, it is unlikely to be possible to undertake engagement activities in every

catchment with the time and resources available. It will often be necessary to prioritise engagement to the places where it will have most benefit. Outcomes from step 1 (see section 7.1) will enable this.

Where places are prioritised for engagement, it should be clear to stakeholders why particular areas have been prioritised. When engaging stakeholders on the benefits, qualitative benefits should be included to help communicate tangible benefits to society. Please see Enabling a Natural Capital Approach guidance for more information.

The legislative drivers to protect the environment apply to all abstractions. Environmental destination planning is therefore relevant to all abstractors. We aim to encourage all abstractors to plan for future risks as set out in the National Framework 2025. To support this we have made available to all abstractors information on the future risks to water availability at a catchment and waterbody scale based on national modelling. This modelling includes a number of assumptions and should be used as a starting point to understand risk of future abstraction reduction.

It may help your stakeholders to understand the following key points:

- The data aims to help abstractors understand the potential scale of abstraction licence reduction that may be required to meet Environmental Objectives.
- No decision has been made on future individual licence changes, but this provides an indication of what the future may be with less water available for people and the environment. It should be used to help you plan for the future.
- We will only make changes to abstraction licences where we have evidence that they are currently having an ecological impact or present a risk to the environment.
- We hope that it will be possible to significantly reduce the impact on abstractors through planning earlier and working on solutions with other abstractors (e.g. through abstractor groups and Regional Water Resources groups).
- We're aware that the numbers presented will be difficult for many abstractors, which is why we want to share them sooner. If we wait until there is more certainty, it will reduce the time available to plan for potential change.
- These numbers relate to water abstraction at low flows (Q95). During times when river flows are higher the changes to abstraction licences may be much less or zero.

We believe that providing information on this risk is the right course of action because it gives more time and opportunity for abstractors to plan, and if possible, collaborate with other abstractors, and we hope that this will help to reduce the impact on abstractors. Where a risk is present we believe abstractors will benefit from engaging with other abstractors and regional groups where there is ongoing water planning activity in their locality.

Consultation

Stakeholders and regulators will respond to the draft plans, and through the established RP and WRMP processes (the latter is covered in Section 3 of the Water Resources Planning Guideline). Stakeholders should have access to clear explanations of the must-do requirements, the choices and the expected benefits to inform their response regarding your proposed environmental delivery plan as explained in Step 9 (see section 7.9).

If your region includes parts of Wales or your plan affects Wales, you will need to engage with Natural Resources Wales and other stakeholders in Wales to agree your long-term destination and how your actions will deliver environmental benefits in Wales.

We have set out the national context for environmental destination in the National Framework for Water Resources 2025 which can be used to support water industry consultation and engagement activity.

Appendix: Prioritisation to support environmental destination

Prioritisation is mentioned at Step 1 and Step 5 in the above guidance. At step 1 we recommend an initial light touch prioritisation to inform your work on improving your evidence and focusing your engagement. At Step 5 you should carry out a detailed prioritisation to help develop alternative planning pathways. The approach described below can be used in a light touch manner in Step 1 and then developed into a detailed approach during Step 5.

Aim of prioritisation

The purpose of prioritisation is to steer decision making to maximise the environmental benefits that can be delivered where it is not possible to deliver all improvements at the same time.

Principles

- Use best available data to identify where and how to prioritise action to maximise the benefits of restoring flows.
- Take as simple an approach as possible
- Present the proposals in a clear, accessible format to engage with and be transparent to stakeholders
- Focus on the high-level prioritisation, leaving the decisions around specific solutions to the WRMPs (water companies can follow UKWIR guidance for prioritising at the action/option/solution level)
- No regrets actions should be implemented without waiting for the prioritisation to complete
- Statutory and regulatory requirements should always take priority (see section 7.4.1)

The outcome of a prioritisation process is an ordered list of locations; this may be catchments, waterbodies or site specific. Those at the top of the list are where ideally you would take action first. This list can be used to support decision making in your plan where you have choices that affect where and when you can take action to improve flows.

We suggest that prioritisation is carried out in two distinct stages:

- Stage one is prioritisation using data to identify the highest priorities for action to improve flows to benefit the environment. This considers the scale of the problem and the likelihood of delivering benefits.

- Stage two is a sequencing which brings in wider considerations to understand where you are most confident of achieving the greatest environmental benefit. You should deliver improvement first considering all factors. The outcome should be a

balanced approach which can clearly demonstrate to regulators and stakeholders the decision-making around the prioritisation of different solutions.

This approach is intended as a tool to support conversations with stakeholders, enable them to understand the choices and shape your plan ahead of decision making in the WRMPs. Regional Groups may have already undertaken some prioritisation, and these principles can be used to steer further work as needed.

The is a high-level strategic approach, the detail around specific solutions should follow in WRMPs.

The information below provides a framework for Regional Groups to prioritise catchments for delivery of improvement actions.

Suggested approach

Context

- Define the starting point for prioritisation, considering existing planned actions.
- Identify where and what the choices are - which decisions in the plan can the prioritisation influence and which are set by other requirements.

Stage 1 Prioritisation

- Collate data to summarise: the scale of the problem, the potential for improvement, and the community benefits. Specific measures are suggested below. Regional Groups may choose to use these or different metrics as appropriate in their catchments.
- Rank catchments (or alternative geographical scale) High, Medium, Low using the metrics suggested below.
- This stage could be carried out by a stakeholder group e.g. abstractors, a local river group.
- Consult with stakeholders on their priorities

Stage 2 Sequencing

Consider factors that will affect the delivery and likelihood of success to identify where it would be best to deliver improvements first. This should be carried out to adjust sequencing whilst maintaining a presumption of keeping locations on the list, rather than ruling locations out.

Screening could consider:

- Are other pressures (e.g. water quality or physical modifications) limiting the ability of flow to improve the ecology? Is it feasible to cost effectively address these other pressures?
- Are there cost effective alternative supplies or schemes that would enable a significant reduction in abstraction? (Short, medium, long term)

- Is there public support for reducing abstraction? Can any secondary impacts be mitigated?

Use the outcome of this screening to develop a sequence for where you would like to take action first.

Bring this together in the Regional Plan by:

- Setting out the proposed prioritisation including sequencing for the region
- Identifying how prioritisation will be considered in decision-making. Regional Groups to decide how best to fit prioritisation into their decision-making methodologies.
- Identifying where prioritisation influenced decisions and where it wasn't able to.

Expected outputs

- Summary of why and where a prioritisation is needed
- Summary of the data used
- Evidence of stakeholder engagement
- Prioritised list of catchments/waterbodies/sites

Suggested prioritisation metrics to consider within the 3 main themes

1. The problem

- Flow deficit - flow compliance bands
- Ecological health – for example biological metrics in catchment data explorer
- Overall WFD status - presence and certainty of flow as a Reason for Not Achieving Good (Ecological Status)
- Serious Damage - number of waterbodies with serious damage or risk of serious damage in catchment
- Artificial drying due to abstraction - number of stream cells in catchment at risk of drying (or length) using GW or HE model data
- Future risk - risk of deterioration, future deficit using NF2025 data
- Natural England site condition assessments for designated sites

2. The potential (the benefits)

- Length of river likely to benefit - length of river that is non-compliant for flow
- Habitats or areas that are considered more precious. E.g. presence of chalk streams, designated sites.

- Links to other strategies such as Local Nature Recovery Strategies, Protected Sites Strategies and Species Conservation Strategies.

3. The community

- Public access – e.g. calculate the length of river accessible to the public
- Social equality - deprivation index
- Community priorities identified through engagement or consultation

Glossary

Term/acronym	Explanation
Adaptive Planning	A framework which allows water companies to consider multiple preferred programmes or options. An adaptive plan should set out how decisions will be made within the framework.
Alternative Pathways	These explore different combinations of actions or innovative solutions or timescales to achieve the environmental requirements. These may reflect local priorities and offer different combinations of solutions to achieve the environmental destination.
Asset Management Plan (AMP)	A five-year investment cycle used by water companies to plan and fund infrastructure improvements. See also *Periodic Review.*
Bundle of Future Water Needs	A grouping of future water needs which includes environmental requirements together with climate change impacts, drought resilience (1:500 requirements) and impacts of growing demand.
Climate Change Flow Projections	Modelled estimates of how river flows and groundwater levels may change due to climate change, used to assess future environmental water needs and abstraction pressures.
Cost-Benefit Analysis (CBA)	CBA compares the total cost of a project or measure against its total benefit, to determine if it should go ahead. Measures to meet Habitat Regulations requirements and to prevent deterioration are not subject to CBA as they are considered 'must do's' under WFD.
Cost Effectiveness Analysis (CEA)	In the context of river basin management planning, CEA describes the least cost option for meeting an objective. For example, where there are a number of potential actions that could be implemented to achieve good status for a water body, the option that delivers the objective for the least overall cost is the most cost effective option.

Determination	The Environment Agency's formal decision-making process regarding abstraction licences, including assessing environmental impacts and compliance with legislation.
Disproportionate cost	The determination of disproportionate cost requires a decision-making procedure that assesses whether the benefits of meeting good status in a water body are outweighed by the costs.
Ecological Status	Ecological status applies to surface water bodies and is based on the following quality elements: biological quality, general chemical and physico-chemical quality, water quality with respect to specific pollutants (synthetic and non-synthetic), and hydromorphological quality. There are five classes of ecological status (high, good, moderate, poor or bad). Ecological status and chemical status together define the overall surface water status of a water body.
Environmental Flow Indicator (EFI)	A threshold used to determine how much water should remain in the environment to protect ecological health. It is expressed as a proportion of the natural flow in a river or waterbody and is used to assess whether current or proposed levels of abstraction are environmentally sustainable.
Environmental Planning Scenario	A modelled representation of future environmental water needs under varying levels of protection and climate change. Scenarios include Baseline, Current 2050/2080, Intermediate 2050/2080, and Full 2050/2080.
Environmentally Unsustainable Abstraction	Water abstraction that causes or risks causing ecological harm by reducing river flows or groundwater levels below thresholds needed to support healthy ecosystems.
Fastest Technically Feasible (FTF)	The FTF pathway sets out how the current regulatory requirements and the Full 2050 Scenario can be delivered as soon as technically feasible by reducing current abstraction to be hydrologically compliant

GES or "Good"	Refers to "Good Ecological Status" – a classification under the Water Framework Directive indicating healthy water bodies. See also *Ecological Status*
Habitats Regulations	The Conservation of Habitats and Species Regulations 2017 (as amended) are UK laws that protect designated European sites and species. They require public bodies (competent authorities) to assess whether plans or projects could harm protected habitats, using a process called Habitats Regulations Assessment (HRA), and only permit them if no adverse effects are proven.
Local Resource Option (LRO)	A water resource solution developed and managed by local abstractors to improve resilience.
Nature-Based Solutions (NbS)	The International Union for the Conservation of Nature defines NbS as solutions that: "address societal, environmental and economic challenges through actions to protect, sustainably manage, and restore natural and modified ecosystems, benefiting people and nature at the same time".
Natural Environment and Rural Communities Act 2006 (NERC Act)	Legislation which includes provisions for biodiversity and environmental conservation.
NIC (National Infrastructure Commission)	An executive agency providing expert advice to the UK government on infrastructure challenges.
Periodic Review (e.g. PR09, PR24)	Also known as the Price Review. This is the process, carried out every five years by the Water Services Regulation Authority (Ofwat), to assess the water company business plans including spending and investment. The plans include environmental improvements. The process is to ensure that water companies provide a good quality service and value for money for their customers. The outcome affects customers' water bill charges. During implementation of the business plan it is often known as an Asset Management Plan (AMP).

RBMP (River Basin Management Plan)	For each river basin district, the Water Framework Directive Regulations 2017 require a river basin management plan to be published. These are plans that set out the environmental objectives for all the water bodies within the river basin district and a summary of the programme of measures that will be taken to achieve those objectives. The plans will be based upon a detailed analysis of the pressures on the water bodies and an assessment of their impacts. The plans must be reviewed and updated every six years.
Reason for Not Achieving Good (RNAG)	Records the source, activity and sector involved in causing an element to be at less than good status.
Site of Special Scientific Interest (SSSI)	An area of land notified under the Wildlife and Countryside Act 1981 by the appropriate nature conservation body as being of special interest by virtue of its flora and fauna, geological or physiogeographical features.
Technically Deliverable	A solution is considered technically deliverable if it is both technically feasible (can be constructed or implemented) and affordable (does not impose disproportionate burdens on sectors or society).
UK Technical Advisory Group (UKTAG)	UKTAG develops guidance and makes recommendations to the UK's government administrations on technical aspects of implementation of the Water Framework Directive.
Water Framework Directive (WFD)	Water Framework Directive (2000/60/EC) - previously European Union legislation aimed at improving and integrating the management of water bodies across Europe by establishing a framework for improving the whole water environment. In England and Wales it is now incorporated into the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 which provides the framework for achieving sustainable water management in line with environmental objectives.

Water Industry National Environment Programme (WINEP)	Sets out the programme of work for water companies in England to avoid deterioration in and improve the environment that is associated with the Environment Agency's jurisdiction.
Water Resources Management Plan (WRMP)	A statutory plan prepared by water companies every 5 years to balance water supply and demand over at least 25 years.
Water Resources Planning Guideline (WRPG)	Guidance issued by the Environment Agency to support water companies in preparing WRMPs.

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