Environmental Destination for Water Resources planning guidance

To support water company and regional water resources planning

April 2026

Version: 1.1

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. 2022 was also 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 along with those of the environment.

The effects of changing weather conditions 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 further 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 calls 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 which asks regional groups to work together to identify the best options, including 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.

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 – as part of our engagement with these sectors we will review the need for further guidance.

The focus for this guidance is planning for the environment. Implementation of actions including licence changes ahead of sustainability reductions to deliver planned environmental outcomes is not considered in this guidance.

The environmental destination is an important step in informing the direction of the overall regional plan. As referenced in section 5.4.2 of the Water Resources Planning Guideline (WRPG), environmental destination planning should be integral to the development of Water Resource Management Plans (WRMPs) and regional plans.

Water company WRMPs must align with regional plans, or justify where they do not, 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 and 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. The Environment Agency is a statutory consultee for WRMPs and work with water companies as they prepare these plans as set out in the WRPG. We will work with regional groups as they develop their proposed environmental destination as part of regional planning. 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 is the government’s statutory adviser for the natural environment in England, and 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. It is the government's official adviser on nature conservation and sites designated for national and international conservation in England, and is the Appropriate Nature Conservation Body for England as defined in regulation 5 of the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations). Natural England also has a duty to provide statutory advice to competent authorities, as defined in regulation 7 of the Habitats Regulations.

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 develop 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 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. 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 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 (AMP) and is considered by Ofwat in the determination of water company prices. Defra, Ofwat and the Environment Agency will review the WINEP methodology ahead of the next price 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 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 Water Resources National Framework 2020 we saw a huge step forward in planning 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 contains a subset of solutions to accommodate abstraction licence reductions likely to be deliverable in the next 5-10 years which will be put forward for funding. We will use the WINEP to formally request water companies 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 proposals for including medium- and longer-term actions in the WINEP will help with ensure implementation of planned actions to deliver 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 (GES). 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 the Environmental Destination for Water Resources is

- 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 summarises the cumulative impact of statutory environmental objectives, regulatory requirements and other environmental commitments on England's water resources and associated water environments.
- 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 environmental 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 the environmental planning scenarios are

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 sections 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-impacted future.

Neither 2050 nor 2080 is a deadline for meeting scenarios but instead represents a projection of climate change impacts on 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 environmentally unsustainable abstraction. In this document we will refer to the legislative requirements and government commitments as **Environmental Destination Outcomes.**

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. 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 under the Wildlife and Countryside Act 1981 (as amended)
    - action that contributes to the restoration and recovery of habitats and species under the Natural Environment and Rural Communities Act 2006 (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 the 2024 price review (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)

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. The flow targets to support achieving the conservation objectives for riverine European sites (ES) and SSSI are defined separately. For low flows, compliance with the EFI will often be sufficient to support the achievement of these targets but this may not be the case for all sections of the designated river. The Environment Agency and Natural England have an agreed process through which long term targets for flow for riverine ES Protected Areas have been agreed. Where this is the case, both targets apply and must be met.

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. As a starting point in developing your plan you should use the EFI as the default planning target for identifying long-term environmental needs to meet WFD regulatory requirements in your plan. Table 6 in our Environmental Destination Technical Report explains how planning targets (including those for designated sites) are used under each of the environmental planning scenarios outlined in section 4.1 of this guidance.

Please note, 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 UK Water Industry Research (UKWIR) Environmental Destination Framework has useful information about appropriate methodologies to assess environmental flow requirements. Section 7.1 explains how you can use this evidence to improve the environmental destination scenarios.

Outcomes from your improved evidence may be used to inform your planning approach (provided it is appropriately justified). You may use this evidence to propose an alternative

local flow constraint in line with the EFI position statement. We will need to consider if this meets required levels of evidence to justify a revision to flow requirements and potentially the river basin plan flow objective for the relevant waterbody(s). If approved, the revised flow objective will be put forward in the subsequent river basin plan consultation but will not be considered final until that process has concluded.

It is important to distinguish the evidence used for planning and evidence needed to support a change in a flow objective which we use in our regulatory decisions to make licence changes. Evidence to inform planning also includes how much impact your abstraction has on the flow of the relevant water body. This is not a change to the flow objective but will inform the extent to which a licence may need to change to meet flow requirements.

Whilst the EFI is used for both planning purposes and defining RBMP flow objectives, a local flow constraint can be proposed for use in regulatory decision making. However, until a local flow constraint has been adopted as the flow objective, we will continue to use the current flow objective (usually the EFI) in licensing decisions. Adaptive planning can be used to plan for solutions that would be required to achieve either the EFI or a local flow constraint. For more information on adaptive planning please refer to 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 the 2050s.
- Maximise the environmental benefits that can be achieved with the investment that can be secured.
- Provide a range of environmental planning scenarios and pathways that enable a robust set of investment choices to be presented.

To achieve the aims, regional groups will explore different planning **scenarios** (the environmental outcomes to be achieved) and **pathways** (how and when the scenarios can be achieved). Figure 1 shows the concept of how different scenarios and alternative pathways to meet those scenarios relate to each other.

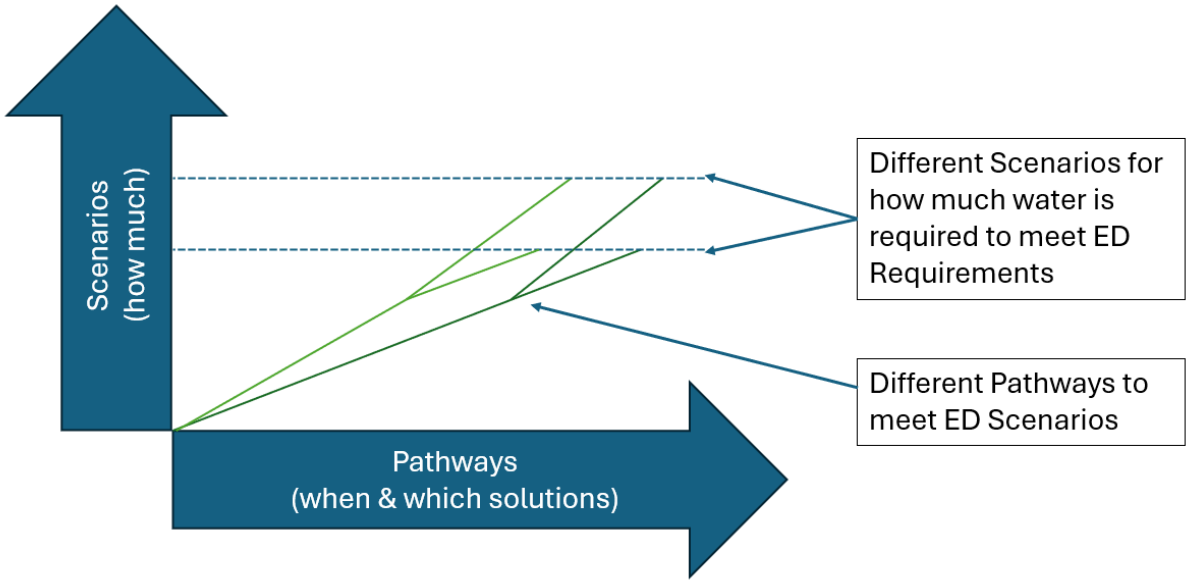

Figure 1 Diagram showing the concepts of Environmental Destination Scenarios and Pathways

Important concepts for the environmental destination

In this guidance we refer to some key terms that are important to understand:

- **Environmental Destination (ED) Planning Scenarios** describe the environmental outcomes required by the combined legislation and government commitments which make up the Environmental Destination (as described in Section 5 of this document). It is an estimate of the water requirements to meet these outcomes.
- **Fastest Technically Feasible (FTF)** pathway is a reference pathway to demonstrate how the current regulatory requirements and the Full 2050 ED Planning Scenario can be delivered as soon as technically feasible by using all available WRMP options
- **Alternative Environmental Destination Planning Scenario** are alternatives to the national ED Planning Scenarios (Current, Intermediate and Full). They are an alternative estimate of the water requirements to meet identified environmental destination outcomes.
- **Alternative planning pathways** are alternatives to the FTF reference pathway which show alternative pathways for reducing unsustainable abstraction over time to meet your range of ED Planning Scenarios. They represent a possible path for consideration through water resources planning using different combinations of actions or innovative solutions. These should be compared to the FTF reference pathway in developing your plan.

Expectations of regional planning

Regional groups (in conjunction with water companies and other stakeholders) will:

- Develop planning pathways to address the full range (current regulatory requirements and the Full 2050 scenario) of environmental requirements quickly and efficiently.
- Explore alternative ED planning scenarios and pathways informed by stakeholder priorities.
- Consider all scenarios and pathways in the context of the whole bundle of future water needs (drought resilience, growth, climate change and the environment requirements considered together) to inform the best value choice of options.
- Present a range of ED scenarios and pathways, including a preferred ED planning pathway, to enable a comparison of options to ensure a robust set of investment choices. This will enable regulators to provide feedback and inform any government direction that may be required on your plan as a whole.

Plans should take a long-term view. They should set a planning period that is appropriate to the risks for the region and/or company and cover at least the statutory minimum period of 25 years. It may be appropriate, depending on the challenges and risks you face for you to plan for the next 50 years or more. This is so your plan identifies appropriate solutions to meet future pressures and environmental requirements.

Implementation of the sustainability reductions included in your plan is not considered in this guidance and may be informed by improved evidence commissioned as part of your planning.

6.2 How developing your environmental destination links to wider planning for the water environment

The environmental destination long term planning for the water environment is part of water resource management planning but is also linked to the three other main water industry planning frameworks – RBMPs, WINEP and Drainage and Wastewater management plans (DWMPs).

RBMP statutory environmental objectives, the status of the water environment and the water body programme of measures to meet those objectives are a critical part of the evidence base for ED scenario planning to inform WRMP29 investment. Long term planning for ED planning will inform actions in AMP9 and AMP10 planning rounds and will also inform the plan to deliver sustainable abstraction through to AMP12 in the mid-2050s.

The overall aim of the WFD is to achieve ‘good ecological status’ of all water bodies by certain deadlines as identified within successive RBMPs (plus achievement of objectives for European site protected areas). Only when justified on particular grounds can an alternative objective be set. The ED planning approach mirrors this approach by starting with planning to meet the Full 2050 scenario at the earliest technically feasible opportunity. This provides a high ambition baseline from which other ED scenarios and pathways can be compared to provide a range of robust investment choices.

Costs play a key role in water industry planning and are a key part of each of the four planning frameworks. The river basin planning process sets the statutory environmental objectives which the WINEP and WRMP plan to achieve. Cost Benefit Assessment (CBA) is part of the river basin planning process when setting statutory environmental objectives. Disproportionate costs, and hence affordability, is a political judgement informed by economic information. This is currently made by the Secretary of State when they approve RBMPs at the start of each RBMP planning cycle.

WINEP, DWMP and WRMP options appraisal guidance focuses on finding the best value options to meet statutory environmental objectives and wider societal benefits. It does not provide means for CBA of the value of meeting environmental objectives, as this assessment belongs in the river basin management planning process and wider valuation methodologies. These other plans can't directly change the RMBP objectives, but they can provide useful information which can be put forward for consideration under the next RBMP review.

Subject to government water reforms, good environmental destination planning may help to strengthen the connection between proposed water supply planning and the setting of environmental objectives.

6.3 How environmental destination planning links across sectors

In managing abstraction licences, we consider the same legislative and regulatory requirements across all sectors:

- **Preventing Deterioration** (WFD Regulations and Habitats Regulations): Legally we cannot allow deterioration of the water environment, so we are required to change licences at the first opportunity where a risk of deterioration is likely.
- **Achieving Statutory objectives** (WFD Regulations and Habitats Regulations) – Where ED solutions relate to a required improvement measure, we use the relevant planning process for the sector impacting the environment. 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 inform).

When working with the water industry we require a regional Environmental Destination to be developed for WRMPs and Regional Plans. The aim of this work is to show stakeholders, regulators, government and water company customers what the delivery of environmentally sustainable abstraction will achieve for the environment (this is the 'destination').

For other abstractors who don't have statutory planning processes which govern their funding, they should consider the environmental destination principles for protecting the environment when planning their future water resource needs and the opportunities identified in the National Framework Water Resources 2025.

6.4 Overview of approach and decision making

Building on PR24 investment plans, ED planning will inform delivery of actions in AMP9 and AMP10 (when longer lead-in times are required) and inform future investment to deliver sustainable abstraction through to AMP12 in the mid-2050s.

Three types of decisions are being informed:

- How does abstraction need to change to meet regulatory requirements and other government commitments for the water environment, now and in the future?
- Will the different ED planning scenarios and pathways make a material difference to the final resource options chosen as part of your best value long term plan? (To what extent does ED ambition make a difference to the final resource options chosen considered alongside drought resilience, growth and climate change requirements?)
- Implementation of required actions to meet environmental objectives and government commitments, prevent deterioration and improve catchment health and resilience. This is of particular relevance for taking action in AMP9 and AMP10 timeframes but also key to maximise benefits when implementing environmental improvements across the whole planning timeframe.

We set out below how these decisions fit alongside wider considerations.

Securing water for the environment – 3 types of decisions

1. Determining the size of abstraction reductions
    a. At a regional and England scale, how much does abstraction need to change, now and in the future to be environmentally sustainable?
    b. Which strategic resource options (SROs) should be selected to meet all future water needs (drought resilience, growth, climate change and the environment) informed by cost and availability?
    c. (SROs are nationally or regionally significant schemes and may include new reservoirs, large water transfers, water recycling or desalination schemes)
2. Deliverability of options (at a regional and/or England scale)
    a. What capacity is there to build the selected SROs and to what timescale when considering other infrastructure build?
    b. How is the sequencing of SRO build informed by prioritisation of required ED outcomes?
3. Implementing catchment action and sustainability reductions
    a. Can proposed catchment actions and sustainability reductions support integrated action on other pressures to maximise environmental benefit?
    b. Can adaptive planning help manage implementation?
    c. Does the potential for secondary impacts affect choice of action?
    d. Will sequencing of proposed action affect long-term objective setting?

Planning should acknowledge that there is uncertainty in projections of growth, climate, future droughts, water demand and future environmental requirements. Each planning cycle should aim to progressively continue to reduce the uncertainty of all these categories. Sensitivity analysis can be undertaken to test the impact of uncertainty and different policy choices to determine if this would make a material difference to the final resource options chosen.

Uncertainty should not delay taking action for the environment but implications for key decision points over the whole planning horizon should be understood. The environmental destination can be adapted with better evidence and stakeholder input and refined in future rounds of regional planning using an adaptive planning approach.

Decisions to inform PR29 plans should be made on information currently available. Gathering of further evidence through investigations should then be timed to support implementation of planned actions.

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

6.5 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, planning for environmentally sustainable abstraction and presenting environmental destination as part of WRMPs and Regional Plans. How the steps relate to these stages is shown in Figure 2.

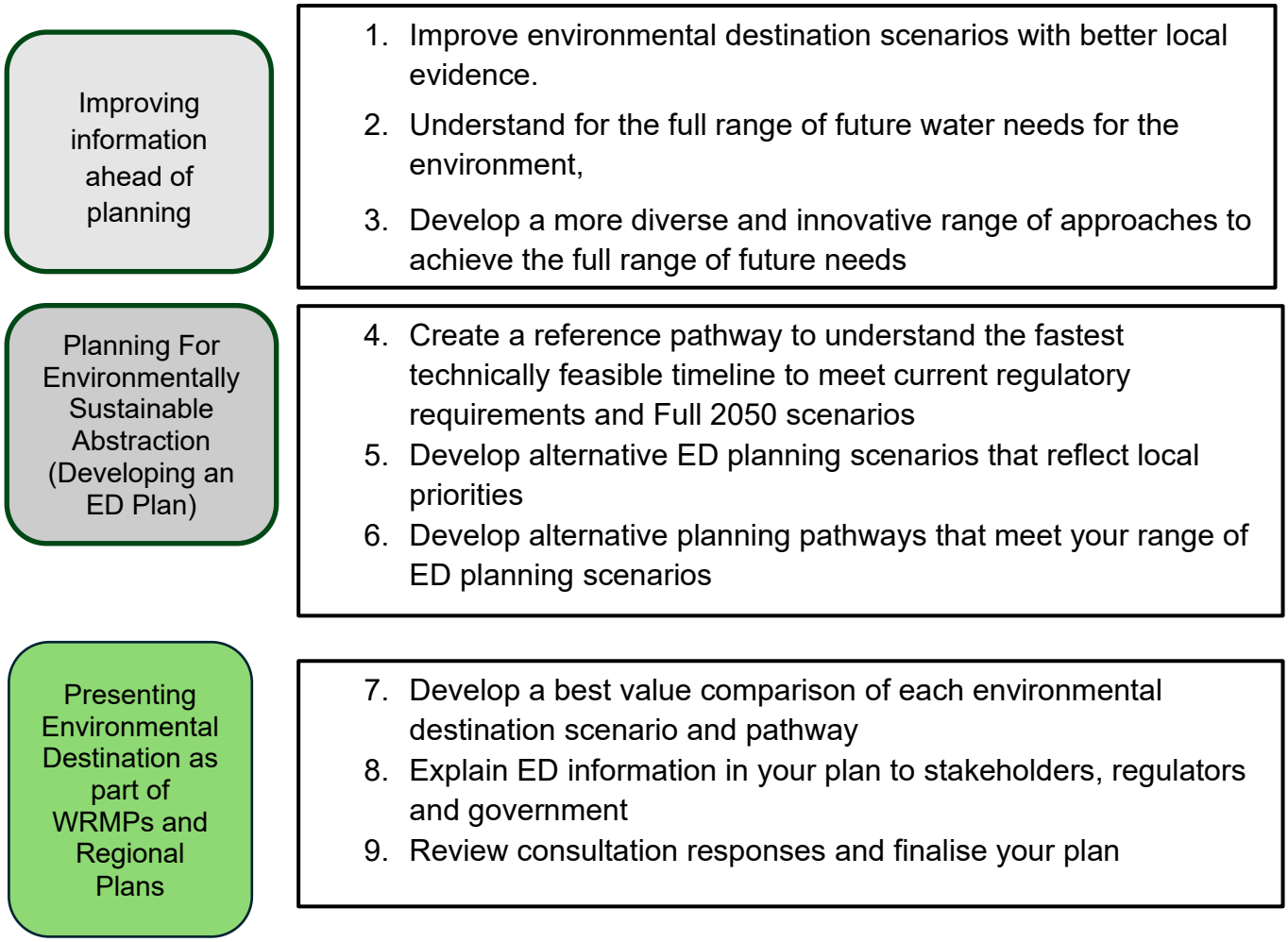

Figure 2 How the 9 steps relate to stages

The first three steps are aligned to the objectives of the Environmental Destination WINEP studies being carried out in AMP8. They are also similar to the first three steps in the UKWIR National Framework for Water Resources: Environmental Destination Investigation Framework.

Whilst these steps are presented in a chronological order there is likely to be considerable iteration between them.

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

Improving information ahead of planning

Step 1 Improve environmental destination scenarios with better local evidence.

Improve national ED planning scenario estimates with better evidence and local information. Use this to inform your understanding of the scale of required changes to meet regulatory requirements and government commitments to the environment. This work should also inform 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 environmental water needs.

Environmental destination planning scenarios model potential future water needs to meet current regulatory requirements and additional government commitments for the water environment. This includes the potential impact of climate change on water availability. You should use a range of scenarios to understand the appropriate range of future water needs to include in the development of your plan.

You can improve your understanding of the range by assessing the potential influence of factors that can't be fully quantified now including:

- Climate scenarios,
- Where future assessment will be required to reduce uncertainties in the quantification of environmental water requirements
- Where there is a high risk that the costs of recovering water to meet an objective may be considered disproportionate in future river basin plans

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

You should develop a more diverse and innovative range of potential solutions which meet (or contribute towards meeting) environmental objectives. This should include measures that can be implemented in the shorter term, for example river restoration and optimising existing infrastructure, where the full solution may require a longer delivery time. Having a wider range of solutions aims to give more choice when developing plans and supports the development of efficient and better value plans.

Planning for environmentally sustainable abstraction

Step 4 Create a reference planning pathway to understand the fastest technically feasible timeline to meet the Current Regulatory Requirements and Full 2050 scenarios

You should create a reference planning pathway which shows the fastest technically feasible timeline to meet both Current Regulatory Requirements 2050 and Full 2050 scenarios (Fastest Technically Feasible pathway). These high ambition pathways will be used as a reference point for stakeholders and regulators to understand the extent of environmental ambition in your plan and what pace of delivery is possible. You should use this as a reference for comparison with alternative planning scenarios and pathways.

We expect planning to start with the aim of meeting the environmental requirements of 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.

Step 5 Develop alternative ED planning scenarios that reflect local priorities

Develop alternative environmental destination (ED) planning scenarios which predict water requirements to meet alternative environmental outcomes. Alternative scenarios should (where possible) reflect local/ regional environmental priorities including Environmental Improvement Plan targets/interim targets and must include meeting the outcomes for Current Regulatory Requirements 2050.

Step 6 Develop alternative planning pathways that meet your range of ED planning scenarios

Bring the range of alternative ED scenarios you developed in step 5 into your WRMP and Regional Planning approach to identify and assess how and when you could meet them as part of the full bundle of all WRMP water requirements (supply/drought resilience, growth, climate change, and Environmental Destination). Through this work, develop alternative (different) ED Pathways that show how progressive investments could deliver the water requirements for your range of 2050s scenarios (Full, Current Regulatory Requirements (CRR), and alternatives).

Each pathway should aim to deliver environmental benefits as quickly as possible, but balance this with maximising efficient delivery of all WRMP water requirements. Different pathways may show different delivery timescales depending on the options chosen to meet the scenario.

For each pathway you should show what environment improvements are likely to be achieved and when sustainability reduction licence changes are planned within this regional plan investment period (2030-2055). You should clearly show the differences between pathways.

Presenting environmental destination into WRMP and regional plans

Step 7 Develop a ‘best value’ comparison of each environmental destination scenario and pathway

Develop a comparison between the alternative ED scenarios and pathways you developed in step 6 and compare to your reference pathway (developed in step 4).

Undertake sensitivity analysis on these ED scenario and pathways to explore slightly different levels of environmental ambition to determine if the majority of environmental benefits for that pathway can be achieved with significantly lower cost. Use this information to determine if different ED Scenarios and Pathways make a material difference to SRO/option choices and scheduling. This aims to help you clearly explain the different choices between the pathways in your plan.

Use this information in the development of your Regional Plans (RP) and WRMP. RP and WRMP modelling and decision making should be used to decide upon a preferred ED scenario and pathway. Plans must aim to determine the best value package of options to deliver all future water needs.

Your WRMP development approach will result in a preferred plan to be put forward for consultation. The ED pathway selected to be part of your overall preferred plan will become your preferred ED pathway.

Step 8 Explain environmental destination information in your regional plan and your WRMP consultation to stakeholders, regulators and government.

Present information in your plan to provide government, stakeholders, and regulators with a summary of the cost-effectiveness for each presented scenario and pathway and how this has informed your draft plan. You should 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 what the preferred environmental destination scenario and pathway would deliver with sufficient information for stakeholders and regulators to understand why this has been selected.

Your plan should explain if the different ED Scenarios and Pathways presented make a material change to SRO/option choices and scheduling and where this materially influences levels of future investment when considered as part of the whole bundle of future water needs.

Step 9 Review consultation responses and finalise your plan

Stakeholders and regulators will review draft WRMPs and provide feedback on the environmental destination pathways as required.

Water companies will use feedback and any government direction to make any necessary updates to final WRMPs.

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

This section provides more details on the steps outlined in section 6.

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

7.1.1 Initial review of evidence

Scenarios describe how much water may be required to meet Environmental Destination outcomes. 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 – that is, improving the scenarios makes a material difference to the options being considered in this round of planning. The modelling from 2020-2024 first round of

environmental destination planning and information gathered through AMP 8 investigations may help to inform this.

You should undertake an initial prioritisation using readily available catchment data and target the catchments with greatest flow deficits 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 prioritisation.

7.1.2 Improving scenarios for planning

National environmental destination scenarios are modelled numbers describing the predicted water needs to meet Environmental Destination Outcomes at particular points in time (for example, the Full 2050 scenario models potential water needs to meet all regulatory requirements and government commitments in 2050). These modelled numbers can be improved where there is good evidence available to do so (section 5.4 has more detail on our expectations for the quality of evidence to make changes).

The focus of improving scenarios should be on the baseline data. Information relating to uncertainty in scenarios should be noted for consideration in step 2. We will share a Sustainable Abstraction Feedback Spreadsheet (SAFS) to provide a consistent format for proposing improvements to scenarios.

This work should focus on the outcomes for the water environment as required by legislation and government commitments. ED scenarios are estimates of the water needs to achieve these outcomes. A key focus of improving scenarios is therefore improving our understanding of the water needs to meet these outcomes. This is illustrated in the example below:

Example of improving understanding of water needs

- Improved groundwater modelling may change our understanding of the amount of abstraction reduction required to support WFD Good Status.
- Use this to adjust the calculations for the ED scenario.
- This will change the estimated water needs for planning.
- The expected environmental outcome remains unchanged, and the plan continues to aim to meet statutory environmental requirements.

Improving modelled numbers can be proposed using available local data and information. 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, for example:
    - Local groundwater modelling outcomes

    - Updated hydrology data to inform naturalised flow estimates
    - Updated climate change modelling (in line with the WRPG supplementary guidance on climate change)
    - Improving how abstractions and discharges are represented in the National Framework 2025 scenarios
- 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.

7.1.3 Building climate change 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. Our Technical Report explains how we estimate natural flows in 2050 and how our ED scenarios relate to Climate Change Committee advice . Any updates to the climate scenarios used in National Framework 2025 must be in line with the WRPG supplementary guidance on climate change.

7.1.4 Consider all abstractors for multi-sector planning

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, for example through Abstraction Permit Reviews (APR).

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. 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.

7.2 Step 2: Understand the full range of future environmental water needs

7.2.1 The environmental destination scenarios

The different environmental destination planning scenarios give a range of potential future water needs to meet Environmental Destination Outcomes. You can improve your understanding of this range by assessing the potential influence of factors that can’t be

fully quantified now. The outcomes of this step will feed into developing alternative scenarios in Step 5 (see section 7.5).

The Current 2050 scenario models potential water needs if the climate changes, but current regulation remains unchanged to 2050. The Full 2050 scenario models potential changes where climate changes and wider government commitments 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 delivery of actions to meet either scenario but instead represents a modelled projection of the likely environmental water needs at a point in the future. The timelines for delivery are set by the statutory objectives under the different legislation that is included in the Environmental Destination.

We expect abstractors to keep their abstractions within environmentally sustainable limits as the climate changes. If an abstraction is from a waterbody where abstraction is currently assessed as environmentally sustainable, the 2050 and 2080 scenarios can help you understand when the impacted waterbody may reach sustainable limits. You should plan to adjust abstraction to ensure the environment remains protected.

If an abstraction is in a waterbody that is assessed as unsustainably abstracted, first adjust your abstraction to meet current requirements and, after that, plan to remain within environmentally sustainable limits.

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. Figure 3 illustrates how the different ED scenarios fit together on a timeline to provide today’s regulatory requirements and a range of future regulatory requirements up to 2050 and 2080. The graph shows projected water requirements for the environment based on these requirements using climate scenarios to represent a range of potential climate impacts.

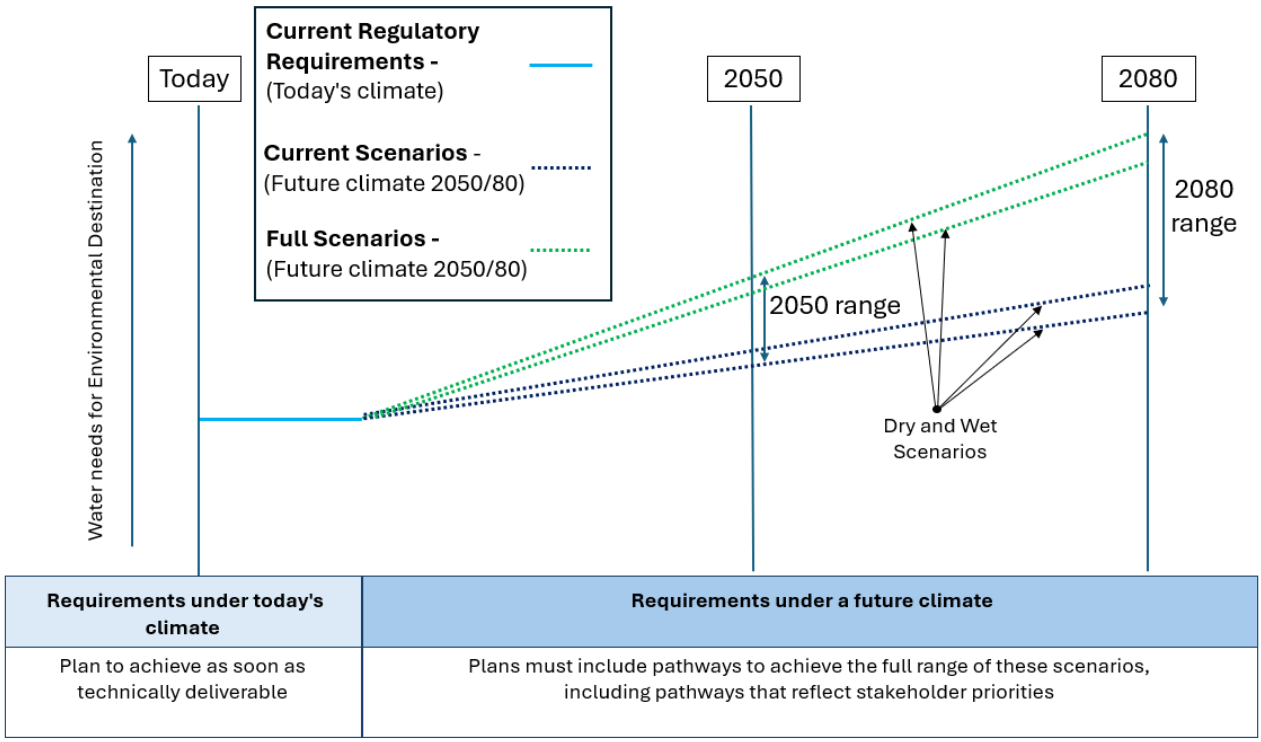

Figure 3 Diagram summarising how regulatory requirements for environmental destination evolve over time as the climate and requirements change

Understanding the consequences of delivering across the range of environmental requirements, from the Full 2050 scenario to current regulatory requirements, will support your discussions with stakeholders on the choices and priorities to inform development of alternative ED planning scenarios (see step 5).

7.2.3 Building future regulatory changes into the scenarios

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

- The government implements changes to legislation
- Regulatory requirements change in plans (for example, when Environmental Objectives in a River Basin Management plan are updated)
- Improved evidence changes the regulatory requirement (for example, 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 (for example, larger reservoir capacity).

7.2.4 Levels of Evidence for Planning vs Implementation

It is important to acknowledge that we do not need absolute certainty over exact level of water needs to include it in WRMPs and Regional Plans. In the same way that population growth is estimated using the best available data, the environmental need is estimated using ED Scenarios to provide the best estimate of the water requirements.

The level of evidence required to plan for environmental destination is therefore different from the level of evidence required when implementing an environmental solution on the ground. Table 1 describes our expectations for evidence requirements to include water requirements in planning (WRMPs and Regional Plans).

Table 1 Examples of the different levels of evidence required for planning vs implementation of environmental improvement schemes

Level of evidence for implementation the final decision on implementation)	Level of evidence for planning (planning decision that may 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 (for example, 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)

Investigations and further studies can be used to provide additional evidence to support decisions on confirming that planned actions are to be implemented. There needs to be an understanding of the timing of the decision for implementation and what additional evidence can be expected to be provided. The expected route for investigations will be

through the WINEP and the proposals for a longer term WINEP will help with planning the evidence requirements for implementation.

Understanding these differences should help inform your planning approach as you develop your planning pathways in the subsequent steps.

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

7.3.1 Reducing or changing abstraction licences

In line with the polluter pays principle our standard 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 on which abstractions are reduced, how required reductions are implemented and how the mix of abstraction reductions is considered 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.

To help you assess different combinations of abstraction reductions in a catchment we have developed the Sustainable Abstraction Calculator and Optimiser (SACO) tool – please see section 7.3.3 for more information.

7.3.2 Developing a more diverse and innovative range of solutions

You should also 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 river restoration and wider catchment solutions
- consideration of river augmentation

These other options are complimentary to the abstraction reductions that can be achieved and you should identify the expected outcomes that these measures could achieve when including them in your plan using adaptive planning principles.

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.

We have recently published a NbS position statement that that describes our approach to NbS. We have also developed a position statement on using NbS to support sustainable water resources which we plan to publish in spring 2026. This includes:

- The standard 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.
- Benefits of NbS for increasing environmental resilience are greater if implemented at the catchment scale, making a more effective contribution to improved resilience in the future.

We encourage you to put forward packages of actions where abstraction reductions are paired with NbS, accompanied by a technical case demonstrating how the package is expected to achieve environmental objectives. This needs to include how the package will continue to meet environmental objectives under future climate scenarios. To increase confidence in the benefits that NbS deliver, you should include baseline and post-implementation monitoring to evaluate their effectiveness where NbS are included as an option.

Where abstraction reductions are not technically deliverable in the short-term, but the ecological impacts of abstraction are proven, you should implement in the short-term any required ‘no regret’ measures that will improve hydro-morphological conditions. 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.

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 environmental resilience to even larger changes in the future.

Flow augmentation schemes can be considered as an interim option on the pathway to sustainable abstraction or complementary benefits to long term sustainable solutions.

We take a cautious approach to the development of new river augmentation schemes, and these should be confined to specific cases where the local circumstances suggest it is likely to be the best available option.

As set out in the Environment Act 2021 the priority is to rectify environmental issues at source and prevent further environmental damage. The following environmental principles must be followed before river augmentation is considered:

1. Focus on standard measures to address environmental impacts from over-abstraction of groundwater by reducing existing abstraction licences with the benefit to increase the amount of water in rivers, especially during low flow periods.
2. Consider other innovative and alternative solutions including optimising infrastructure operations, nature-based solutions, habitat and other hydro-morphological improvements together with wider catchment solutions.
3. When benefits from these measures and innovative solutions have been exhausted only then consider river augmentation schemes taking account of whole life costs, benefits (including carbon costs etc) and disbenefits (environmental damage).

Flow augmentation action needs to be sustainable in the long term with assessment of water availability, quality, temperature and replicating natural flows and accounting for climate change and net zero.

All options can be considered as part of alternative pathway development outlined in step 6.

7.3.3 Sustainable Abstraction Calculator and Optimiser

The Environment Agency has developed the Sustainable Abstraction Calculator and Optimiser (SACO) to support transparent and consistent testing of abstraction reduction scenarios against flow requirements identified in ED planning scenarios.

SACO enables users to assess compliance with flow requirements, explore alternative abstraction reduction approaches, and understand the implications of proposed changes.

We encourage regional groups and water companies to use SACO to test and understand different ED pathways. We may also use SACO to review and quality assure submitted scenarios to assess expected outcomes.

SACO supports analytical assessment and scenario testing but does not replace the need for professional judgement, local evidence, or regulatory decision-making. Further detail

on governance and acceptable use is set out in the SACO Acceptable Use and Governance Policy, available upon request by emailing: wrenvironmentaldestination@environment-agency.gov.uk.

7.4 Step 4: Create a reference planning pathway to understand the fastest technically feasible timeline to meet the Current Regulatory Requirements and Full 2050 scenarios

7.4.1 Developing your reference pathway

You should start by creating a reference pathway which meets your refined Current Regulatory Requirements 2050 and Full 2050 scenario (developed in step 1) as soon as technically feasible using all available WRMP options. You should aim to demonstrate how quickly the objectives of the Current Regulatory Requirements 2050 and Full 2050 could technically be achieved without taking cost or affordability factors into account. These high ambition reference scenarios will help stakeholders and regulators to understand what pace of change would be technically feasible to deliver – to meet full government environmental commitments and regulatory minimum requirements. It will be used as a comparison against which alternative scenarios can be compared, thereby helping stakeholders and regulators to understand implications of the additional factors that may be considered under alternative scenarios (for example, considering affordability and pace).

We expect you to plan to Full 2050 because this ensures that the ambition for the environment is not restricted at the start of the planning process. The date 2050 does not represent a deadline for delivery of actions to meet the Full scenario but instead represents a modelled projection of the likely environmental water needs in 2050. The pace of delivery in your reference pathway to meet the Current Regulatory Requirements 2050 and Full 2050 scenario is based on when you can deliver solutions by. (Considering unconstrained and feasible WRMP list of options.)

The pathway to meet Full 2050 may encompass meeting Current Regulatory Requirements 2050 along the way or the difference between the two scenarios may be so great two separate pathways need to be developed at this stage.

A summary of the planning expectations when using the scenarios to develop your reference pathway are described in Table 2.

All WRMPs and regional plans must include a Full 2050 scenario and a Current Regulatory Requirements 2050 scenario (these are the refined and improved scenario outputs from Step 1). Full 2050 and CRR 2050 scenarios are required so that the costs and benefits of meeting these common scenarios can be assessed consistently across England.

Table 2: Summary of planning expectations for the scenarios in developing your reference pathway

Regulatory Requirements for planning	Description	Expectation
Full Scenario 2050 (2080)	Future Regulations Future Climate Taking account of predicted climate change impacts, plus additional environmental protection in line with government policy and supported commitments.	Plans use best available understanding of timelines for delivering solutions to meet the requirements of Full 2050/2080 scenarios to create a fastest technically feasible timeline
Current Regulatory Requirements 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 Current Regulatory Requirements 2050/2080 scenarios in a fastest technically feasible timeline.
Current Regulatory Requirements (baseline)	Current Regulations Current Climate Changes to water abstraction to meet environmental water requirements under current legislation in today's climate	Your plan should aim to achieve CRR quickly and efficiently as possible

7.4.2 How regulatory drivers influence pace of delivery

The two most significant drivers of current regulatory requirements require action to be progressed without delay:

- **WFD Regulations** aim to achieve GES by 2027 and require us to prevent deterioration of the water environment. We expect actions required to meet GES to be implemented by 2027 or as quickly and efficiently as possible (where a 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 achieving current regulatory requirements quickly and efficiently must be taken. The FTF reference pathway enables regulators and stakeholders to understand a technically feasible pace of delivery and compare it with alternative pathways to understand how plans are aiming to achieve ED Outcomes as quickly and efficiently as possible. Table 3 explains how these actions should be considered in your planning.

Table 3: incorporating different types of environmental outcomes into plans

Action type	How to incorporate in planning
Actions to prevent deterioration	Timing of solution must be before deterioration occurs
Actions to meet river basin plan objectives and Habitats Regulations objectives that are deliverable in the next price review period	Include in the next price review period – actions are required and deliverable so should be included in plans
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	Plan for delivery as quickly and efficiently as actions can be delivered. For the FTF reference Pathway this is as soon as technically feasible. For alternative pathways additional considerations can be taken into account to propose the best time to deliver.

7.4.3 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 ED scenarios can be achieved should be marked on each pathway.

The FTF reference 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.

7.5 Step 5: Develop alternative environmental destination planning scenarios that reflect local priorities

7.5.1 Approach

Alternative environmental destination scenarios describe the predicted water requirements to meet feasible outcomes that are different to your Current Regulatory Requirements scenario or the Full scenario informed by outputs from Step 1 and 2. They must include meeting the legal requirements set out in the Current Regulatory Requirements scenario and one alternative scenario should incorporate meeting the Environmental Improvement Plan targets or interim targets where possible. These alternative scenarios can consider alternative environmental outcomes informed by stakeholder priorities (extra protection for some priority rivers in the region). Identifying regional priorities should be carried out in collaboration with stakeholders.

All alternative ED scenarios must have a clear rationale for how they meet the requirements for the relevant legislation. It wouldn't be acceptable to put forward a scenario that doesn't have a plausible route to achieving legal compliance with environmental legislation.

This starts by first considering alternative planning scenarios (how much) in step 5 and afterwards considering when and how the scenario can be achieved in Step 6. As shown in figure 1; scenarios describe 'how much' water would be needed to meet ED outcomes, whilst pathways look at 'when' the scenario outcomes can be delivered and which solutions would be required.

You should develop alternative ED scenarios where the outputs from Step 1 and Step 2 indicate that there are alternative levels of abstraction reduction that are a plausible future worthy of consideration in planning. There is no limit on the number of alternatives that can be tested, but we suggest aiming to present less than 10 scenarios in plans to avoid overcomplication. All ED planning scenarios used for testing in regional plans should represent plausible future water requirements, each with a clear rationale for how they support ED outcomes.

7.6 Step 6: Develop alternative planning pathways that meet your range of ED planning scenarios

7.6.1 Prioritisation

Before you develop alternative ED planning pathways you should prioritise the locations where you would like to take action first. Where possible your approach should build on any prioritisation undertaken in step 1.

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 the Appendix.

7.6.2 Alternative ED planning pathways considered as part of the whole bundle of future water needs as part of regional and WRMP planning.

You should use the range of alternative ED scenarios you developed in step 5 to identify and assess how and when you could meet the full bundle of all WRMP water requirements (supply/drought resilience, growth, climate change, and Environmental Destination). You should do this by bringing your range of alternative ED scenarios into your WRMP and Regional Planning approach.

Environmental requirements will therefore be considered alongside the other pressures on the supply demand balance. You should bring in your additional options developed in Step 3 alongside your WRMP options to identify portfolios options that efficiently meet all future water needs.

Through this planning work you will identify the solutions and their timings which can deliver the water requirements for each ED planning scenario. You can present this information as a set of alternative Environmental Destination pathways. These pathways show the progressive investments to deliver the water requirements for a scenario. Your planning work should therefore develop a set of alternative pathways that can deliver this full range of ED scenarios, alongside the wider whole bundle of future water requirements.

The FTF reference pathway represents the fastest-paced pathway—achieving the Full 2050 ED outcomes and Current regulatory requirements as quickly as technically feasible. Alternative pathways may follow different investment choices with a different pace of delivery compared with the FTF reference pathway, but each must show a viable route to meeting your ED scenarios at some point in the future. Each alternative pathway should aim to deliver environmental benefits as quickly as possible, but balance this with maximising efficient delivery of all WRMP requirements.

Figure 4 illustrates how alternative pathways could be designed to deliver different ED scenarios though an adaptive planning approach. Figure 4 also shows how the adaptive pathway progressively invests over the plan investment period (to 2055) with medium sized options coming online regularly, whereas the other alternative pathway uses a slower initial investment approach but has one very large scheme in 2045 which delivers most of the need. These are examples of how different pathways could be put together through Water Resources planning to develop choices around the approach to delivering ED outcomes.

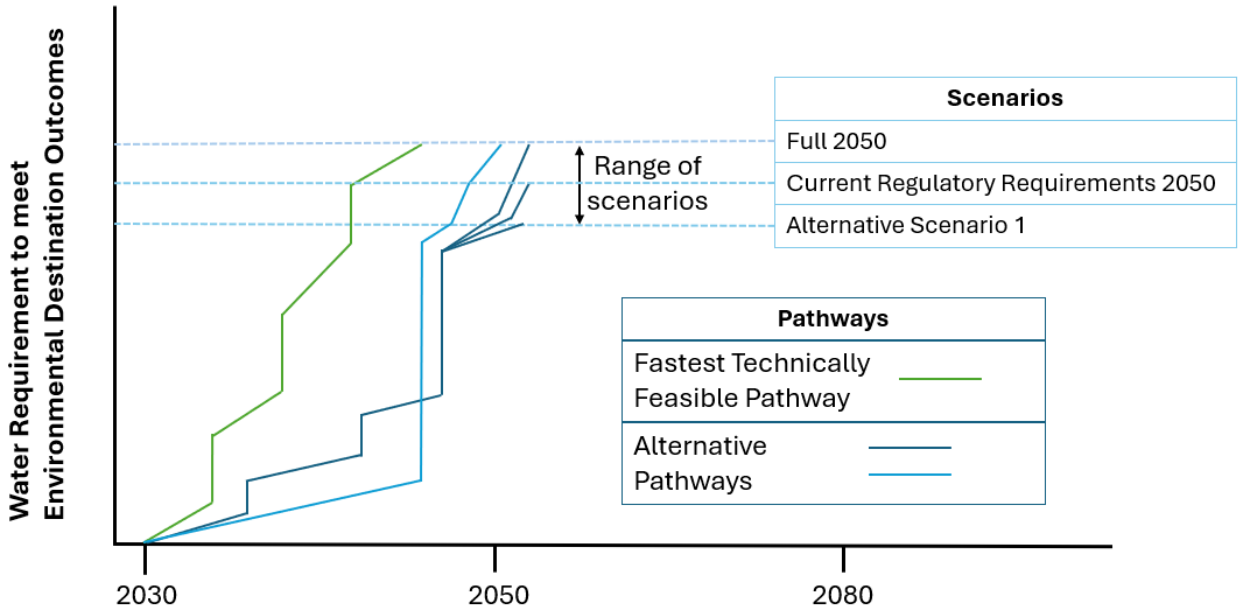

Figure 4 graph showing examples of pathways showing how they can aim to meet the full range of scenarios

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. Alternative planning pathways can explore different levels of potential investment and choices around the pace of delivery of ED outcomes. For each pathway you should show what environmental outcomes will be achieved within this regional plan investment period (2030-2055), along with the solutions/investments required. 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 4).

Pathways can be created for different geographical scales (for example, 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 WRMP and Regional Plan. Some decision points can be delayed until a more appropriate time through an adaptive planning approach. Figure 4 gives an example of how pathways can be displayed and compared.

Developing a range of pathways to inform choices in a WRMP or Regional plan is likely to be iterative. It's likely to start with understanding the mandatory scenarios FTF (as quickly as technically feasible), CRR 2050 and Full 2050 (quickly and efficiently balanced with maximising efficient delivery of all WRMP requirements). After that you can use learning from WRMP development and findings from previous steps to test further alternative pathways. For example:

- Incorporate additional solutions and approaches that were identified in Step 3 where these could change the pace of delivery
- Test how different combinations or types of abstraction reductions affect delivery timelines
- Assess benefits and dis-benefits of spreading option delivery over a longer period – for example, allowing affected parties more time to adapt.
- Select solutions that reflect regional priorities – for example, to deliver benefits to your highest priority areas first
- extending the timescale to meet Full 2050

Test how changing the approach to meeting your ED scenarios affects the quantities of abstraction reduction to be included in WRMPs and Regional Plans to inform the different levels of potential investment required for 2030-2055.

7.6.3 Develop a clear rationale for alternative planning pathways

All alternative pathways presented in a plan must be compared to the FTF reference pathways developed in step 4. Each alternative pathway should have a rationale, the intention of the scenario and what alternative choice it offers for decision making. The rationale must include the information listed in table 4. Where an alternative pathway seeks to extend milestones beyond technically feasible delivery dates, then the rationale should explain the reasons for this, for example:

- 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 a case can be made that only an alternative pathway would avoid a disproportionate burden on particular sectors or parts of society.

The choices made in this step and how the rationale is explained will be important for supporting engagement with stakeholders on the preferred pathway included in your draft WRMP and as represented in your regional plan.

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.

All alternative pathways included in your plan should be supported with a plausible technical case. We advise regional groups to seek early regulatory engagement on pathways.

Table 4 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 reference pathway	Achieves the same outcome, but five years slower with more cost-effective investment in replacement water supply infrastructure and increased benefits through additional investment in nature-based solutions.
2. How it complies with regulatory requirements	ED outcomes of Current Regulatory Requirements met before 2040
3. To what extent it achieves Full 2050 requirements	ED outcomes of Full 2050 scenario by 2055
4. How it reflects regional priorities (how and what)	Stakeholder preference for nature-based solutions and prioritise recovery of Salmon Action Plan Rivers earlier
5. How it reflects EIP targets/interim targets	Number of SSSI features which have actions on track to achieve favourable condition.
6. The purpose of the pathway (How this alternative pathway adds value to the planning process)	Provides an alternative for pathway that achieves same benefits at lower cost, but outcome delivered later.

Alternative Pathway Rationale must explain	Example
7. The key milestones when current regulatory requirements and full requirements could be achieved (as shown in the example pathways in figure 4)	Current by 2040 (FTF 2035) Full by 2055 (FTF 2045)

Alternative pathways can also be influenced by the distributional nature of the costs. For example, spreading the option over a longer period 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.

7.6.4 Economic factors to consider when developing pathways

The test of Disproportionate Costs under the WFD Regulations is a political judgement informed by economic information. This is currently made by the Secretary of State when they approve River Basin Management Plans. There is no legal basis for cost disproportionality decisions to be made through Regional Plans or WRMPs.

However, if your analysis shows that there is a likely risk that a future RBMP catchment scale economic assessment would assess, for a particular set of actions, that costs would exceed benefits you can include this in your plan but to do so you should:

- Present information to support this case.
- Develop pathways for both possible outcomes – meaning a future where the cost is deemed to be a) disproportionate when reviewed as part of a catchment scale assessment, and b) one where it is not considered disproportionate. You may want to assess these as adaptive pathways so that your plan can adapt depending on the outcome of the future cost disproportionality assessment.

This information may be provided to government and the Secretary of State to consider if they wish to provide direction on which environmental destination scenario to include in WRMP29 planning.

This long-term planning information can potentially be used to inform economic assessments for future rounds of RBMP objective setting. It will help to make the economic link between water planning and statutory environmental planning/objective setting into the future (using Regional Plan and WRMP29 information to inform future environmental objective setting).

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 you should provide in Step 7.

7.6.5 Secondary impacts

In certain situations, the recovery of water will include the evaluation of risks around secondary impacts/unintended consequences such as groundwater rebound leading to increased flooding. Where abstraction reductions are to be implemented, there will need to be an assessment of the risks of secondary impacts/unintended consequences of the increase in flows or groundwater levels. The mitigation or minimisation of the risks should be informed by current approaches to managing flood risk and considered as part of your adaptive planning.

7.6.6 Including environmental destination in Water Resources Management Planning as part of the whole bundle of future water needs

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 and given equal weighting. 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.

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 ED scenarios, the planning and decision making should follow the approach set out in the WRPG.

Along with all sources of uncertainty (for example, 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.

7.6.7 Selecting a preferred ED Pathway

Following the process set out in the WRPG, as you develop your WRMP and regional plan, you should decide on a preferred ED pathway, with a programme of options to deliver it. Your plan should justify the reason for selecting your preferred ED pathway.

The process of selecting a preferred ED pathway should be **fully integrated** with your normal WRMP and Regional Plan decision making (a decision made on the full bundle of needs).

There is no need for a separate decision-making process specifically for selecting a preferred Environmental Destination pathway. Ideally you should test all the presented ED pathways through your decision-making process (including your network and investment modelling). However, where you aren't able to test all pathways you should use the modelling results to justify your decisions on which to test (for example you may choose the highest, lowest and some middle scenarios and pathways to demonstrate that you have been able to take the full range of potential future needs through your decision making process).

Use this information in the development of your Regional Plans (RP) or Water Resources Management Plans (WRMP). RP and WRMP modelling and decision making should be used to decide upon a preferred ED scenario and pathway and a range of alternative pathways. This enables environmental requirements to be considered alongside other requirements that drive investment. These include climate change impacts, drought resilience (1:500 requirements) and population growth. Plans must aim to determine the best value package of options to deliver all future water needs.

7.7 Step 7: Develop a best value comparison of each environmental destination scenario and pathway

7.7.1 Develop a best value comparison between the different pathways

In line with WRPG, plans should identify those options that address the whole bundle of future water needs which will deliver best value for the environment and society. You should assess the additional costs to deliver the environmental outcomes described for

each of the alternative ED planning pathway you present in your plan in the context of the whole bundle of future water needs. You should use this information to develop a cost comparison for:

- Your preferred environmental destination pathway
- Current 2050 and Full 2050 Fastest Technically Feasible pathway as defined in Table 2, Step 4.
- A pathway that delivers EIP targets, if not included in the above.
- Any other pathway that helps to explain your choices.

You should use this information to support and justify your choice of preferred ED Pathway and include this in your plan and your technical justification to the Environment Agency (as outlined in step 9, section 7.9).

7.7.2 Undertake sensitivity analysis on the ED planning pathways you expect to present in your plan

In the context of presenting best value options for your plan, you should explore slightly different levels of environmental ambition to determine if the majority of environmental benefits for that pathway can be achieved with significantly lower cost.

This may help you to determine which ED Scenarios and Pathways would make a material difference to proposed options (in particular proposed SROs) identified to address other pressures (drought resilience, growth, climate change) in your plan or the scheduling of those options.

This information will help you clearly explain the different choices between the pathways in your plan as part of step 8.

7.8 Step 8: Explaining environmental destination information in your regional plan and your WRMP consultation to stakeholders, regulators and government

You should provide government and regulators with a summary of the expected environmental outcomes for each of your pathways and how this has informed your plan.

For each planning pathway considered in your plan (see step 7 section 7.7), you should present the expected environmental outcomes for each pathway in a way that can easily be understood (for example by describing the water bodies that are expected to benefit).

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 costs of achieving regulatory requirements under each pathway
- The costs and environmental outcomes of the additional investment (considering the whole bundle of future water needs) that delivers beyond the current regulatory requirements towards the Full 2050 Scenario
- Your best value comparison of the pathways included in your plan in the context of the whole bundle of future water needs.

Meeting current regulatory requirements should be explained in plans as:

- Something that is required to be delivered (meeting regulatory requirements), but where there are choices around how best to deliver (and therefore choices around the pace of delivery).
- A requirement without a set deadline for delivery, but where the pace is driven by the need to comply with regulatory requirements quickly and efficiently (pace may be limited by technical feasibility and affordability)
- Using a range of scenarios enables you to plan for the most likely scale of future change required using evidence-based estimates of future need. You can increase your level of confidence in these estimates over time through further investigation.

Stakeholders and regulators will respond to the draft plans through the established planning processes. Consultation on draft WRMPs is covered in Section 3 of the WRPG.

Regulators will review the summary you present in step 8 and provide information for government to consider if they wish to provide direction on the regional environmental destination scenario included in WRMP29 planning.

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.

7.9 Step 9: Review consultation responses and finalise your plan

You should consider the consultation responses to draft WRMPs and feedback from regulators to identify any changes to your proposed ED pathways and environmental outcomes and clearly explain this in final plan WRMPs and regional plans.

As per the process set out in the WRPG, final WRMPs including environmental destination pathways, will be approved for implementation. Once a government decision has been made to approve a WRMP that includes an ED preferred pathway, the agreed pathway can be referred to as an environmental destination delivery plan.

8 Engaging stakeholders to inform priorities for action

8.1 Why you should engage

You should engage early with regulators and a broad range of stakeholders (such as other water companies, abstractors and abstractor groups, environmental non-governmental organisations (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 6 section 7.6)
- 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).

8.2 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 – for example, 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 several 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 (for example, 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.

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 your 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 – for example, 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 (for example, 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

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

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 National Framework for Water Resources 2025 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 – for example, 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 – for example, calculate the length of river accessible to the public
- Social equality – deprivation index
- Community priorities identified through engagement or consultation

Glossary

Term or acronym	Explanation
Abstraction permit reviews	Abstraction permit reviews (APR) are a rolling programme of work to address all remaining damaging or potentially damaging abstractions in a catchment. The ambition is to complete reviews between 2028 and 2035 with timings of individual catchments based on catchment common end dates
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 Price Review.
Best Value	Considers factors alongside economic cost and seeks to achieve outcomes that increase the overall benefit to water company customers, the wider environment and overall society
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.

Term or acronym	Explanation
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 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.

Term or acronym	Explanation
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 (ES) 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”.

Term or acronym	Explanation
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.
Price Review (for example, PR09, PR24)	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.

Term or acronym	Explanation
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.